

Bryophytes of the Čantoryjský hřbet range /Czantoria range/ and its foothills (Western Carpathians - Czech Republic, Poland)

Vítězslav P l á š e k, Adam S t e b e l

Mosses of the Čantoryjský hřbet range /Czantoria range/ and its foothills (Western Carpathians - Czech Republic, Poland).- Čas. Slez. Muz. Opava (A), 51: xx-xx, 2002.

A b s t r a c t: The results of the bryofloristic research of Czech and Polish part of the mountain range, carried out in 1997-2001, are summarized. The literature and historical data are included too. The complete list of the species contains 360 and 4 varieties of bryophytes – 2 species of hornworts, 85 and 1 variety of liverworts and 273 and 3 varieties of mosses. The area was found to be most remarkable for a high concentration of both rare and threatened species. The comments about the most interesting bryophytes and the local Red List are given.

K e y w o r d s: *Bryophytes*, inventory, threatened species, Red List, Western Carpathians, Silesia, Czech Republic, Poland.

I n t r o d u c t i o n

Silesian Beskid (called "Slezské Beskydy" Mts. in the Czech Republic and "Beskid Śląski" Mts. in Poland) is the westernmost part of the Carpathians. It covers more than 600 km² and is divided into three parts: Č a n t o r y j s k ý h ř b e t r a n g e (Czantoria range) – located in NW part of the Western Carpathians (in both of the Czech Republic and Poland), B a r a n i a G ó r a r a n g e – situated in NE part (in Poland) and S o ł o w y r a n g e - comprises its S part (in Poland and Slovakia). The aim of the study is to present an exhaustive list of hornworts, liverworts and mosses occurring in Čantoryjský hřbet range (Czantoria range) with detailed study of the threatened taxa. In the Czech part the research of complex bryophytes flora was recently done. In the Polish part of the investigated area only moss flora is elaborated completely, whereas hepatic and hornwort lists present rather current state of knowledge and these groups need further detailed investigation.

D e f i n i t i o n o f s t u d i e d a r e a

A. Czech part

The area in which the bryofloristic research was conducted is from a wider perspective a NE part of Moravskoslezské Beskydy Mts. and it is formed mainly by Čantoryjský hřbet mountain range and partly of its foothills. The SE, S and SW borders are naturally formed by the Olše (Olza) river, which has its source in Poland. (It flows onto the territory of the Czech Republic 2km NE of Bukovec village and flows out and crosses the Czech border back into Poland near the town of Český Těšín). The border of the area in question is formed by the Olše river from the Czech-Polish border to Bystrice nad Olší village. From this point to Nýdek village the west border is formed by the Hluchová river and then the west border continues by an imaginary line to Ostrý hill. N and NE borders are defined by the Czech-Polish state borders.

B. Polish part

The boundary of Polish part runs from railway station Ustroń-Zdrój by Mała Czantoria Mt. to Wróżna Mt., next along country border to the Jaworzynka village. Further part of boundary runs between watersheds of Olza river and Czadeczka stream from Jaworzynka village to Koczy Zamek Mt.. From this point it goes N to Karolówka Mt. and next through Kubalonka pass to Głębcze village. Further part of eastern boundary on the investigated area runs to the Ustroń town parallel to Vistula river.

Materials and methods

The field investigations were carried out in 202 localities from 1997 till 2001. At each collecting point data concerning the main features of the local flora and types of habitat were recorded (*sensu* Duda, Herben et Novotný 1985). Some common species, easily identified in the field (e.g. *Atrichum undulatum*, *Pleurozium schreberi*, *Polytrichum formosum*, etc.), were often only annotated in the tick-list during the field survey, rather than collected as the herbarium specimens. The findings are mark with the abbreviation “not.” – notavit (cf. Kotlaba 2000).

Generally, the subjects for flora analysis were over 3500 records and documentary evidence supplied for about 2300 herbarium specimens, housed in Herbarium of Department of Pharmaceutical Botany, Silesian Medical Academy (SOSN) – Polish part and Silesian Museum in Opava (OP) – Czech part. To obtain a more complete picture of the moss flora of investigated area, some herbarium specimens housed in BRNM, priv. herb. Kučera, priv. herb. Vacínová, etc. were used. In addition, data from the bryological and phytosociological literature were included.

The nomenclature and the system in the text follow Váňa (1997) with a few exceptions. For each taxa the following information are given: frequency (according to the scale: 1-2 stations – **very rare**; 3-5 – **rare**; 6-10 – **fairly frequent**; 11-17 – **frequent**; 18 and more – **common**), short habitat description and list of localities, separately for the Czech and Polish part. Lists of localities are divided into three categories: recent data (collected during the period 1997-2001), historical data (collected before 1997, mostly unpublished, housed in herbaria) and literature data. Recent findings are presented like numbers of the localities (see in chapter “List of localities”), whereas historical and literature records are given as a full text. Recent data from the Czech part consist of author and date of collection, name of collector/determinator, possibly name of reviewer). Since all recent data from the Polish part of investigated area were collected and elaborated by the second author, the supplementary data are omitted.

The history of bryological research in the area

A. Czech part

Čantoryjský hřbet mountain range was largely forgotten by Czech bryologists, because they lay in the shadow of more attractive massive of Radhošťské Beskydy Mts., which historically were the focus of most of the bryological research in the region. However, some bryologists have conducted their research in the study area.

In the middle of 19th century, Plucar studied the area in the vicinity of Český Těšín town. The results of his studies were published in the Newsletter of the local Evangelic Grammar School (cf. Plucar 1855). While most of his studies were carried out in the neighboring area, his discovery of moss *Anacamptodon splachnoides* in the area of Jablunkov-Návsí town was documented by several authors (cf. Milde 1858, 1861 et 1869;

Limpricht 1895; Podpěra 1928; Vězda 1960).

In the first half of 20th century, W. Kulesza was studying occurrence of liverworts and hornworts near Jablunkov town. The results of his research were published in Poland (Kulesza 1922). Unfortunately, his specimens were never found even after an extensive search in several Polish museums, which puts into question the existence of the species in the above mentioned area. While most of his published findings were later confirmed, the existence of the more rare species of liverworts, e.g. *Calypogeia suecica*, *Lophozia obtusa* or *Riccia bifurca* is still unclear.

In 1955 and 1958 the area was visited by J. Jedlička, who made a valuable contribution to the study of bryoflora near Nýdek village, especially in Hluchová stream valley. While the specimens he collected are housed in BRNM, the results of his studies were never published, which makes it difficult to properly evaluate them. A fraction of his findings was mentioned by other researchers in their articles, as a revision of the following taxa - e.g. some species of liverworts (published by J. Duda et J. Váňa), mosses, e.g. *Brachydontium trichodes* (Soldán 1991), *Dicranum montanum* (Franklová 1999), genus *Orthotrichum* (Vondráček 1993), genus *Ulota* (Vondráček 1994), etc.

In the 1970's, the mountain range was visited by J. Duda as part of his work for AOPK ČR. During these short visits, he collected several specimens of liverworts and mosses which are currently housed in BRNM and OP.

The first detailed bryological study of the area was conducted from 1997 to 2000 by V. Plášek. This research was partly supported by the grant No. KZ97P01OMG074 of the Ministry of Culture of the Czech Republic and partly from the funds of Silesian Museum and University of Ostrava. The final summary of the study was submitted in 2000 (Plášek 2000c). The knowledge of local bryoflora was further expanded by field trips of the Bryo-lichenological section of the Czech Botanical Society. These field trips were a part of the 12th Bryological-lichenological Meeting which took place 30.9-3.10.1999. As customary, a list of recorded species was published in Bryonora Newsletter (Plášek, ed. 2000b). The results of the detailed survey of Hluchová stream valley which, thanks to its unique diversity of bryophytes (150 recorded species), is the most interesting region of the Čantoryjský hřbet mountain range, were later published (Plášek, Kučera et Duda 2000). The data about the rare and threatened taxa found in the area was presented at various conferences in the form of posters and in the form of booklet published by University of Ostrava (Plášek 2000a).

Over the last few years, as part of their thesis, two students from University of Ostrava conducting research of Rohovec stream and Kostkov stream valleys in the area (cf. Valdštyňová 2001, Platošová in litt.). Their research will further contribute to the knowledge of bryoflora of the mountain range.

B. Polish part

First information about bryophytes of Czantoria range was published by Milde (1852, 1869) and Limpricht (1873, 1876) from vicinity of Ustroń town. In the 30's of 20th century Rejment-Grochowska made a detailed study of liverwort flora of whole Silesian Beskid Mts. area and the results were published in 1950. In the same time a few localities *Scapania nemorea* was reported by Hausbrandt (1949). Next localities of hepatics, collected by A. Graw in 40's, were published in "Atlas of geographical distribution of spore plants in Poland" (Szweykowski 1969; Szweykowski et Koźlicka 1974, 1977). Some pieces of information about hepaticoflora were added by Klama et al. (1987, 1988) and Parusel (2001).

Contrary to fairly good knowledge of liverwort flora, mosses of Czantoria range has never been studied in detail. In the first half of 20th century there were only some sporadic data concerning mosses (Koczwara 1930; Żmuda et Wiśniewski 1935). In the 60's a lot of

interesting species were reported by Mickiewicz (1965) and Szafran (1965). Next localities of mosses, collected by A. Graw in 40's and B. Szafran in 60's were published in "Atlas of geographical distribution of spore plants in Poland" (Ochyra et al. 1985b, 1988a, 1990a, b, 1992); Bednarek-Ochyra 1990a, b, c) and in monograph of genus *Racomitrium* in Poland (Bednarek-Ochyra 1995). Moreover, some pieces of information about musc flora were added by Bielczyk (1984/86), Źarnowiec et al. (1986, 1987, 1988), Holeksa et Wilczek (1992), Wilczek (1995) and Parusel (2001). Locations of some interesting species have been also reported by the second author (Stebel 1999; Stebel et Plášek 2001).

A list of localities

A. Czech part

1. Nýdek village, Hora (Gora) settlement, valley of Horský potok stream - upper part, 650 m.
2. Nýdek surroundings, between Hora (Gora) settlement and Ostrý settlement, arable fields, 463 m.
3. Nýdek surroundings, under Ostrý hill, arable fields, 487 m.
4. Nýdek surroundings, near Ostrý settlement, arable fields, 520 m.
5. Nýdek village, Kouty (Guty) settlement, valley of Horský potok stream - middle part, 480-550 m.
6. Velká Čantoryje Mt., central part of the National Natural Reservation, 950-995 m.
7. S slope of Velká Čantoryje Mt.; 4 km NNE of Nýdek village; primeval forest, 850-900 m.
8. SE slope of Velká Čantoryje Mt., between loc. "Za kámen" and the top of Velká Čantoryje Mt. (along blue tourist way), 900-950 m.
9. Velká Čantoryje Mt., near loc. "Pod chatou na Čantoryji", 865 m.
10. Nýdek village, ca. 2 - 2.5 km SW of the top of Velká Čantoryje Mt., along the tourist way, 650 m.
11. Nýdek village, ca. 3.5 km SW of the top of Velká Čantoryje Mt., along the tourist way, 500 m.
12. Nýdek village, ca. 0.5 - 1.5 km NE of the village, along the tourist way, 460 m.
13. Valley of Střelma stream, ca. 3 km ENE of Nýdek village, near loc. Beskydské sedlo, 523-530 m.
14. Valley of Střelma stream, ca. 2 km NE of Nýdek village, 520 m.
15. Nýdek village, in the vicinity of "San Beskydo" boarding - house, 510 m.
16. Nýdek village, centre of the village, 421 m.
17. Nýdek village, SW edge of the village, old solitary trees (*Acer pseudoplatanus*) near the chapel, 405 m.
18. Valley of Hluchová stream, ca. 2 km ESE of Nýdek village, 440-450 m.
19. Valley of Hluchová stream, middle part of the stream, ca. 3 km ESE of Nýdek village, 450 - 475 m.
20. Valley of Hluchová stream, loc. "Setinka", ca. 3.3 km ESE of Nýdek village, 480-485 m.
21. Valley of Hluchová stream, middle part of the stream; near left tributary, 490 m.
22. Valley of Hluchová stream, loc. "Kolibiska", 640 m.
23. Valley of Hluchová stream, 400 m ESE of loc. "Kolibiska", 650 m.
24. Valley of Hluchová stream, upper part of the stream, ca. 650-680 m.
25. Valley of Hluchová stream, 300 m W of Stožek gamekeeper's lodge, 600 m.
26. Valley of Hluchová stream, under Ploský Grůň hill, 1 km SE of Stožek gamekeeper's lodge, 640 m.
27. NE edge of Bystřice nad Olší village; artificial surfaces, 400 m.
28. Valley of Suchý potok stream, ca. 2.5-3 km ENE of Bystřice nad Olší village, upper part of stream, NE slope of Javorový vrch hill, 550 m.
29. 4 km ESE of Bystřice nad Olší village, valley of Kompařov stream - upper part, 500 m.
30. 2.5 km ESE of Bystřice nad Olší village, valley of Kompařov stream - middle part, 480 m.
31. 4 km E of Bystřice nad Olší village, between loc. "V pasekách" and Kompařov stream; 500-520 m.
32. 3 km E of Bystřice nad Olší village, near loc. "V Pasekách"; 465 m.
33. 2 km E of Bystřice nad Olší village, between the village and loc. "V Pasekách", 460 m.
34. E edge of Bystřice nad Olší village, artificial surfaces, 450 m.
35. Velký Sošov Mt., 880 m.
36. Valley of Kompařov stream, ca. 2 km NNE of Hrádek nad Olší village; between Hrádek nad Olší village and "V Pasekách" settlement, 405 m.
37. 3 km E of Hrádek nad Olší village, near loc. "Na Gróni", along tourist way, 650 m.
38. Hrádek village, abandoned sandstone quarries, ca. 1.5 - 2 km NE from the village, 500 m.
39. Hrádek village, arable fields along the right bank of Olše river, 450 m.
40. Hrádek nad Olší village, middle part of the village, left bank of Olše river, 380-400 m.
41. Jablunkov town, part Návší, between loc. "Zápolí" and Rohovec Natural Memorial, 700m.
42. Rohovec Natural Memorial, ca. 2 km N of Jablunkov - Návší town, 550 m.

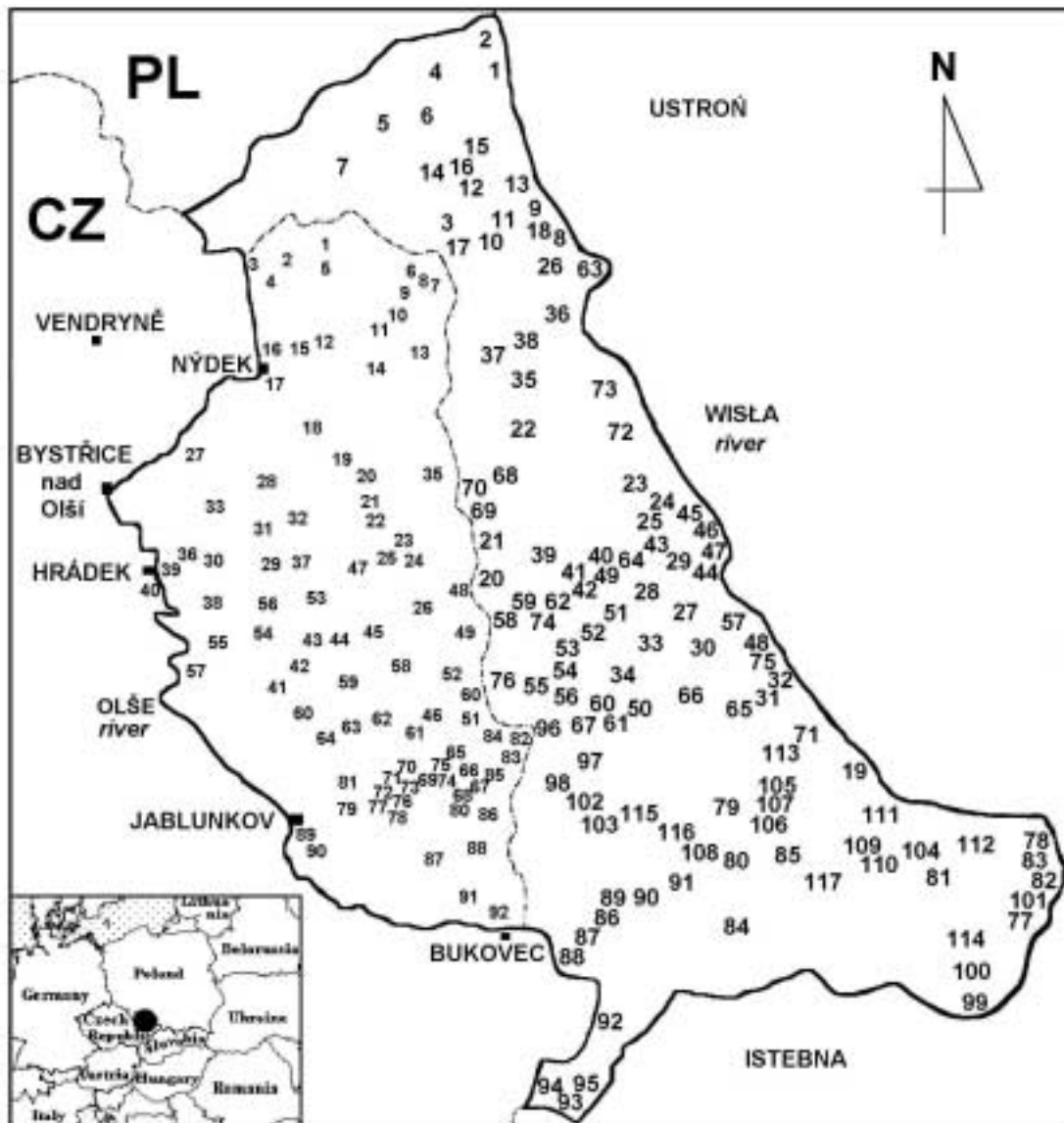
43. Between **Rohovec** Natural Memorial and loc. "**Filipka**", 550 m.
44. **Jablunkov** town, part **Návší**, loc. "**Pod Filipkou**", 680-700 m.
45. **Filipka** Natural Memorial, 750 m.
46. Between **Filipka** Natural Memorial and **Velký Stožek** Mt., 700 m.
47. Near loc. "**Filipka**"; towards valley of **Hluchová** stream, 700 m.
48. **Malý Stožek** Mt., the top area, 850-900 m.
49. Between **Velký Stožek** Mt. and **Malý Stožek** Mt., along the tourist way, 850-900 m.
50. **Velký Stožek** Mt., the top area, 950-978 m.
51. **Velký Stožek** Mt., W slope of the mountain, under the top area, 900 m.
52. NW slope of **Velký Stožek** Mt., upper part of valley of **Hluchová** stream, 690-720 m.
53. **Rohovec** stream, upper part of the stream, ca. 600 m.
54. Valley of **Rohovec** stream - middle part, near **Rohovec** Natural Memorial, 350-500 m.
55. N edge of **Jablunkov - Návší** town, along **Rohovec** stream, 380-410 m.
56. 3 km NNW of **Jablunkov - Návší** town, middle part of valley of **Rohovec** stream, 430-450 m.
57. The confluence of **Olše** river and **Rohovec** stream, 370-380 m.
58. Valley of **Kostkov** stream – spring area; ca. 3 km ENE of **Jablunkov - Návší** town, ca. 1 km S of **Filipka** Natural Memorial, 600 m.
59. Valley of **Kostkov** stream, upper part of the stream, 550 m.
60. Valley of **Kostkov** stream, middle part of the stream, ca. 450 m.
61. Valley of **Radvanov** stream; upper part, ca. 3-3.5 km NNE of **Radvanov** settlement, 550-600 m.
62. Valley of **Radvanov** stream; ca. 2.3 km NE of **Radvanov** settlement, near a left tributary, 450 m.
63. Valley of **Radvanov** stream; middle part, ca. 1.5-2 km NE of **Radvanov** settlement, 440-450 m.
64. Valley of **Radvanov** stream; lower part, ca. 500 m NE of **Radvanov** the settlement, 430 m.
65. W slope of **Krkavice** hill, 850 m.
66. Above the spring area of **Kotelnice** brook, near the top of the **Krkavice** hill, 850-900 m
67. Spring area of **Kotelnice** brook, 650 m
68. Valley of **Kotelnice** brook, upper part, 600-650 m
69. 2 km ENE of **Za Vrchem** settlement, middle part of the valley of **Kotelnice** brook, 550-580 m.
70. 2.5-3 km NE of **Písečná** village, bank of a brook near peat bog - above loc. No. 71, 560 m.
71. **Písečná** village, loc. "**Droserová enkláva**" peat bog, 550 m.
72. Valley of **Kotelnice** stream; middle part, ca. 3 km NE of **Písečná** village, near "**Droserová enkláva**", 550 m.
73. Along a small brook ca. 150-200 m NE of loc. "**Droserová enkláva**", 550 m.
74. Valley of **Kotelnice** stream, middle part of the stream, 550-600 m.
75. Valley of **Kotelnice** stream, shady sandstone rocks on the right bank of the middle part of the stream, 600-650 m.
76. **Písečná** village, a margin of the forest road, under loc. No. 71, 540 m.
77. **Písečná** village, big moist grassland called "**Velká enkláva**", 550 m.
78. **Písečná** village, small spring area near loc. No. 77, 550 m.
79. Valley of **Kotelnice** stream; middle part, ca. 2 km ENE of "**Za vrchem**" settlement, 550-580 m.
80. 2.5-3 km ENE of **Písečná** village, along the tourist way (blue sign) near loc. **Bahenec** (ca. 1-1.5 km WSW of **Bahenec** cottage), 550-600 m.
81. Between **Písečná** village and **Záhoří** settlement, arable fields, 491 m.
82. Between **Plenisko** Natural Reservation and the top of **Kyčera** Mt., wet bottom and banks of the forest road, 950 m.
83. **Písek** village, **Plenisko** Natural Reservation, the primeval forest, 870-880 m.
84. **Plenisko** Natural Reservation, wet bottom of a forest road in upper part of the Natural Reservation, 700-720 m.
85. Between **Bahenec** settlement and **Plenisko** Natural Reservation, 650 m.
86. Between **Bahenec** settlement and **Bystrý** settlement, 780-800 m.
87. 1.5 km NE of **Písek** village, near **Stožek** settlement, arable fields, 510 m.
88. **Písek** village, 1.5 km WSW of loc. "**Bahenec**", 490-500 m.
89. **Jablunkov** town, loc. **Městský les**; forest with a tourist centre, 389 m.
90. **Jablunkov** town, arable fields near loc. **Městský les**, 389 m.
91. **Bukovec** village, between loc. "**Pod bahny**" and "**Pod Ostrou**", 435 m.
92. **Bukovec** village, bank of **Olše** river, between loc. "**Fiktusy**" and "**Pod bahny**", 430 m.

B. Polish part

1. Ustroń town, **Brzegi** (Gd 01), between Wisła river and 3 Maja Street, 365-370.

2. Ustroń town, **centre** (Gd 01), between Wisła river and 3 Maja Street, 355-365.
3. Ustroń town, **"Czantoria" nature reserve** (Gd 01), 700-990.
4. Ustroń town, **Jelenica** (Gd 01), near Myśliwska Street, 420-445.
5. Ustroń town, **Jelenica** (Gd 01), near Jelenica Street, upper part, 445-480.
6. Ustroń town, **Jelenica** (Gd 01), near Jelenica Street, lower part, 375-380.
7. Ustroń town, **Mt Mała Czantoria** (Gd 01), NW slope, 575-600.
8. Ustroń town, **Polana** (Gd 01), S part, 390-405.
9. Ustroń town, **Polana** (Gd 01), central part, 380-385.
10. Ustroń town, **Polana Stokłosica** (Gd 01), upper part, 845-850.
11. Ustroń town, **Polana Stokłosica** (Gd 01), lower part, 780-785.
12. Ustroń town, **Poniwiec** (Gd 01), valley of the Suchy Potok stream, 415-620
13. Ustroń town, **Poniwiec** (Gd 01), between Akacjowa Street and forester's lodge (Nadleśnictwo), 375-380.
14. Ustroń town, **Poniwiec** (Gd 01), valley of the Gronik stream, 440-465.
15. Ustroń town, **Poniwiec** (Gd 01) valley of the stream Poniwiec near abandoned quarry, 420-525.
16. Ustroń town, **Poniwiec** (Gd 01), abandoned quarry, 425-430.
17. Ustroń town, **Mt Wielka Czantoria** (Gd 01), between polana Stokłosica and the peak, 850-855.
18. Ustroń town, **Mt Wielka Czantoria** (Gd 01), NW slope, between Ustroń-Polana and Polana Stokłosica, 440-740.
19. Wisła town/Istebna commune, **Mt Beskidek** (Gd 12), NWW of Stecówka, 775-780.
20. Wisła town, **Mt Cieślar** (Gd 11), near the peak, 900-910.
21. Wisła town, between **Mt Cieślar** and **Mt Soszów Wielki** (Gd 11), 875-880.
22. Wisła town, **Mt Czupel** (Gd 11), S of Jawornik-Pod Skolnity.
23. Wisła town, **Dziehcinka** (Gd 12), near railway station, 460.
24. Wisła town, **Dziehcinka** (Gd 12), near Dziehcinka Street, 455.
25. Wisła town, **Dziehcinka** (Gd 12), near Ochorowicza Street, 460.
26. Wisła town, **Gahura** (Gd 01), near the quarry, 420-445.
27. Wisła town, **Głębcze** (Gd 12), near railway station, 530-580.
28. Wisła town, **Głębcze** (Gd 12), between Dworcowa Street and Turystyczna Street, 535-550.
29. Wisła town, **Głębcze-Szkoła** (Gd 12), near Głębcze Street, 500-505.
30. Wisła town, **Głębcze-Kaluża** (Gd 12), near Głębcze Street and on the stream Głębiczek, 555-560.
31. Wisła town, **Mt Głębiec** (Gd 12), W slope, 785-795.
32. Wisła town, **Mt Głębiec** (Gd 12), near the peak, 810-815.
33. Wisła town, **Górne Głębcze** (Gd 12), 620-700.
34. Wisła town, between **Górne Głębcze** and **Mrózków** (Gd 12), 720-730.
35. Wisła town, **Jawornik-Centrum** (Gd 11), 450.
36. Wisła town, **Jawornik**, (Gd 01), abandoned quarry, 420-425.
37. Wisła town, **Jawornik-Lusia** (Gd 11).
38. Wisła town, **Jawornik-Ognisko** (Gd 01), 410.
39. Wisła town, **Jurzyków** (Gd 11), 520-540.
40. Wisła town, **Kobyła** (Kobyła) (Gd 11), colony on N slope of Kobyła Mt, lower part, 700-710.
41. Wisła town, **Mt Kobyła** (Kobyła) (Gd 11), NW slope, spring area of the stream Dziehcinka, 750-770.
42. Wisła town, **Mt Kobyła** (Kobyła) (Gd 11), N slope, 770-780.
43. Wisła town, **Kopydło** (Gd 12), near J. Ochorowicza Street, 550-560.
44. Wisła town, **Kopydło** (Gd 12), near Spacerowa Street, 460.
45. Wisła town, **Kopydło** (Gd 12), old cemetery, 455.
46. Wisła town, **Kopydło** (Gd 12), abandoned quarry, 445-460.
47. Wisła town, **Kopydło** (Gd 12), on bank of Wisła river, near abandoned quarry, 440-445.
48. Wisła town, **Mt Koziniec** (Gd 12), W slope, 730-740.
49. Wisła town, **"Krzakoska Skala" nature monument** (Gd 11), sandstone outcrop on N slope of Kobyła Mt., 700-710.
50. Wisła town, **Kuczerka** (Gd 12), colony on N slope of Mrózków Mt., 800-815.
51. Wisła town, **Łabajów** (Gd 12), valley of the stream Łabajów, 515-525.
52. Wisła town, **Łabajów-Tyszanka** (Gd 11), 540-555.
53. Wisła town, between **Łabajów-Tyszanka** and **centre** (Gd 11), 560-580.
54. Wisła town, **Łabajów** (Gd 11), centre, 585-605.
55. Wisła town, **Łabajów-Do Dolin** (Gd 11), 610-650.
56. Wisła town, between **Łabajów** and **Mrózków** (Gd 11), 560-580.
57. Wisła town, **Łączenia** (Gd 12), small colony between Głębcze and Koziniec, 630-650.
58. Wisła town, **Mt Mały Stożek** (Gd 11), N slope, 800-810.

59. Wisła town, Mały Stożek Mt, **valley of the stream Dziehcinka** (Gd 11), 755-785.
60. Wisła, **Mrózków** (Gd 12), colony on NW slope of Beskidek Mt., 720-800.
61. Wisła, **Mt Mrózków**, (Gd 12), NE slope, 800-815.
62. Wisła town, **Na Polanie** (Gd 11) colony on SW slope of Kobyla Mt., 770-775.
63. Wisła town, **Obłaziec** (Gd 01), near railway station, 415-425.
64. Wisła town, **Pasieki** (Gd 12), place about 0.5 km W of railway station Wisła-Kopydło, near blue touristic route, 600-620.
65. Wisła town/ Istebna commune, **Przełęcz Kubalonka** (=Kubalonka Pass) (Gd 12), 720.
66. Wisła town/ Istebna commune, between **Przełęcz Kubalonka** and **Mrózków Mt.** (Gd 12), 800-805.
67. Wisła, **Przełęcz Łącecko (=Ku Tabuli)** [=Łącecko Pass (=Ku Tabuli)] (Gd 12), 780-785
68. Wisła town, **Soszów** (Gd 11), colony on NE slope of Wielki Soszów Mt., 790-800.
69. Wisła town, **Mt Soszów Wielki**, (Gd 11), near the peak, 855-860.
70. Wisła town, **Mt Soszów Wielki**, (Gd 11), NW slope, 770-780.
71. Wisła town/Istebna commune, **Mt Szarcuła** (Gd 12), near the peak, 785-795.
72. Wisła town, **Uzdrowisko** (Gd 11), 435.
73. Wisła town, **Uzdrowisko-Zdejszy** (Gd 11), 425.
74. Wisła town, **W Dolinie** (=Sałasz Kobyla) (Gd 11), place on NE slope of Mały Stożek Mt., 775-780.
75. Wisła town, **Wajdówka** (Gd 12) place on SW slope of Koziniec Mt., 760-765.
76. Wisła town, **Mt Wielki Stożek** (Gd 11), N slope, near the path to Łabajów, 680-720.
77. Milówka commune, **Kamesznica - Za Groń** (Gd 22), 780-800.
78. Milówka commune/Istebna commune, **Polana Czubanula** (Gd 12), N of Ganczorka Mt, 850-860.
79. Istebna commune, **Andziolówka** (Gd 22), 575-580.
80. Istebna commune, **Bucznik** (Gd 22), 535-550.
81. Istebna commune, **Mt ilipionki** (Gd 12), 770-775.
82. Istebna commune/Milówka commune, **Mt Ganczorka** (Gd 12), E slope, 860-870.
83. Istebna commune/Milówka commune, **Mt Ganczorka** (Gd 12), near the peak, 890-900.
84. Istebna commune, **Istebna** (Gd 22), centre of village, 595-600.
85. Istebna commune, **Istebna-Las** (Gd 22) 550-560.
86. Istebna commune, **Jasnowice** (Gd 22), 555-560.
87. Istebna commune, **Jasnowice-Chraściny** (Gd 22), 525-535.
88. Istebna commune, **Jasnowice-Koniec** (Gd 22), 490-495.
89. Istebna commune, between **Jasnowice-Łączyna** and **Jasnowice-Szymcze** (Gd 22), 490-495.
90. Istebna commune, between **Jasnowice-Szymcze** and **Jasnowice-Suszki** (Gd 22), 490-495.
91. Istebna commune, between **Jasnowice-Suszki** and **Istebna-Prądowniec** (Gd 22), 540-555.
92. Istebna commune, **Jaworzynka**, (Gd 22), valley of the stream Olecka, 500-560.
93. Istebna commune, **Jaworzynka-Szkawrany** (Gd 21), 635-640.
94. Istebna commune, **Jaworzynka-Wawrzacze** (Gd 21), 635-640.
95. Istebna commune, **Jaworzynka-Trzycatka** (Gd 21), 625-630.
96. Istebna commune/Wisła town, **Mt Kiczory** (Gd 12), near the peak, 930-990.
97. Istebna commune, **Mt Kiczory** (Gd 12), E slope, spring area of the stream Olecka, 790-860.
98. Istebna commune, between **Mt Kiczory** and **Mt Tokarzonka** (Gd 12), 900-910.
99. Istebna commune, **Mt Koczy Zamek** (Gd 22), N-E slope and abandoned quarry, 835-845.
100. Istebna commune, **Koniaków-Kowalówka** (Gd 22), 800-820.
101. Istebna commune/Milówka commune, **Mt Mała Ganczorka** (Gd 22), W slope, 800-810.
102. Istebna commune, **Młoda Góra** (Gd 12), W part, 795-800.
103. Istebna commune, **Młoda Góra** (Gd 12), E part, 735-745.
104. Istebna commune, **Pietraszonka** (Gd 12), W part, 675-680.
105. Istebna commune, **Pilorka** (Gd 12), W part, 625-630.
106. Istebna commune, **Połom** (Gd 12), 580-600.
107. Istebna commune, between **Połom** and **Pilorka** (Gd 12), 630.
108. Istebna commune, **Prądowniec** (Gd 22), 535-550.
109. Istebna commune, **Skala**, (Gd 12), NE part, 670-675.
110. Istebna commune, **Skala** (Gd 12), sandstone outcrop, 675-680.
111. Istebna commune, **Stecówka** (Gd 12), 750-760.
112. Istebna commune, **Stoczek** (Gd 12), 855-870.
113. Istebna commune, **Mt Szarcuła** (Gd 12), SW slope, 780-785.
114. Istebna commune, **Mt Tyniok** (Gd 22), N slope, 840-850.
115. Istebna commune, **Wilczna** (Gd 12), 600-640.
116. Istebna commune, between **Wilczna** and **Prądowniec** (Gd 12), 560-580.
117. Istebna commune, **Zaolzie** (Gd 22), E part, 575-605.



Map of studied area with the visited localities.

Results

The total amount of bryophytes species of Čantoryjský hřbet range (Czantoria range) totals 360 and 4 variety of bryophytes (2 species of hornworts, 85 and 1 variety of liverworts and 273 and 3 variety of mosses).

Systematical enumeration of bryophytes

Explanations:

Rec:	recent findings, since 1990	det.	determinate
Hist:	historical data, before 1990	11	number of locality
Lit:	literature data	CZ:	Czech part of the area
not.	notavit (only recorded)	PL:	Polish part of the area
leg.	legit (collected)		

ANTHOCEROTOPSIDA

Anthocerotaceae Dumort.

Anthoceros agrestis Paton – rare; arable fields, moist banks of forest roads

Rec: **CZ: 81** (leg. V. Plášek 12.10.2001, OP); **87** (leg. V. Plášek 20.8.1999, OP); **90** (leg. V. Plášek 12.10.2001, OP).

PL: 5.

Lit: **PL:** valley of the Dziechcinka stream (Rejment-Grochowska 1950 sub *A. punctatus* L.).

Phaeoceros carolinianus (Michx.) Prosk. – very rare; wet bank of forest road.

Rec: **CZ: 84** (leg. V. Plášek 20.8.1999, OP).

Lit: **CZ:** Jablunkov town (Kulesza 1922); Jablunkov town (Duda et Váňa 1972).

HEPATICOPSIDA

Pseudolepicoleaceae Fulford et J. Taylor

Blepharostoma trichophyllum (L.) Dumort. – common; humus on shady rocks, rotten wood.

Rec: **CZ: 6** (not. V. Plášek 3.10.1999); **14** (not. V. Plášek 2.6.2000); **18** (leg. V. Plášek 22.1.1999, teste J. Duda, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; not. J. Kučera 1.10.1999); **20** (leg. V. Plášek 23.4.1999, det. J. Duda, OP); **21** (leg. V. Plášek 1.10.1999, OP); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **52** (not. V. Plášek 3.9.1999); **53** (not. V. Plášek 3.10.1999); **58** (leg. Z. Platošová 4.8.2001, OP; leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 29.9.2001, OP); **60** (leg. Z. Platošová 13.10.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **65** (not. V. Plášek 24.6.1997); **68** (leg. V. Plášek 12.5.1998, OP); **83** (leg. J. Kučera 2.10.1999, herb. J. Kučera).

PL: 12.

Hist: **CZ:** top area of Velký Stožek Mt., 978 m (leg. J. Duda 6.7.1975, OP); W slope of Krkavice hill, 850 m (leg. J. Duda 6.7.1975, OP).

Lit: **CZ:** Loc. "Městský les" forest nearby Jablunkov town (Kulesza 1922); valley of Hluchová river (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); Velká Čantoryje Mt. (Plášek, ed. 2000b); Plenisko (Plášek, ed. 2000b).

PL: common on the whole area (Rejment-Grochowska 1950).

Trichocoleaceae Nakai

Trichocolea tomentella (Ehrh.) Dumort. – rare; spring areas.

Rec: **CZ: 60** (leg. Z. Platošová 13.10.2001, OP); **77** (leg. V. Plášek 17.8.1999, OP); **78** (leg. V. Plášek 12.5.1998, OP).

PL: 80.

Hist: **CZ:** valley of Hluchová river (leg. J. Jedlička 22.8.1958, BRNM).

Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922; Duda et Váňa 1977b); *valley of Hluchová river* (Duda et Váňa 1977b).
PL: *valley of Jawornik stream* (Rejment-Grochowska 1950).

Ptilidiaceae H. Klinggr.

Ptilidium ciliare (L.) Hampe – recently not found.

Lit: **PL:** *Kobyła Mt.* (Rejment-Grochowska 1950).

Ptilidium pulcherrimum (G. Weber) Vainio – frequent; bark of trees.

Rec: **CZ:** **6** (not. J. Kučera 2.10.1999); **13** (leg. V. Plášek 3.9.1999, OP); **15** (not. V. Plášek 30.9.1999); **20** (leg. V. Plášek 23.4.1999, det. J. Duda, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **26** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **52** (not. V. Plášek 3.9.1999); **58** (leg. V. Plášek 30.8.2000, OP); **64** (leg. V. Plášek 3.8.2000, OP); **80** (leg. V. Plášek 20.8.1999, OP); **83** (leg. V. Plášek 20.8.1999, OP); not. J. Kučera 2.10.1999); **86** (leg. V. Plášek 20.8.1999, OP).

PL: **51**.

Hist: **CZ:** valley of Radvanov stream, 600m (leg. J. Duda 6.7.1975, OP); valley of Hluchová river (leg. J. Jedlička 22.8.1958 sub *Ptilidium ciliare*, rev. J. Duda, BRNM).

Lit: **CZ:** *valley of Radvanov stream* (Duda et Váňa 1987a); *valley of Hluchová river* (Duda et Váňa 1987a; Plášek, Kučera, et Duda 2000); *Velká Čantoryje Mt.* (Plášek, ed. 2000b); *Plenisko* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991).

PL: *common on the whole area* (Rejment-Grochowska 1950); *Głębce, slope on the Kopydło stream* (Mickiewicz 1965).

Lepidoziaceae Limpr.

Lepidozia reptans (L.) Dumort. – common; forest ground, rotten wood.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **6** (not. J. Kučera 2.10.1999); **13** (leg. V. Plášek 3.9.1999, OP); **18** (leg. V. Plášek 22.1.1999, teste J. Duda, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; not. J. Kučera 1.10.1999); **23** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **28** (leg. V. Plášek 21.10.2000, OP); **30** (leg. V. Plášek 29.5.2001, OP); **33** (not. V. Plášek 15.6.2001); **35** (not. V. Plášek 5.9.2000); **47** (not. V. Plášek 12.5.2001); **52** (not. V. Plášek 3.9.1999); **53** (not. V. Plášek 3.10.1999); **55** (not. V. Plášek 3.10.1999); **56** (leg. J. Kučera 3.10.1999, herb. J. Kučera); **58** (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **65** (not. V. Plášek 24.6.1997); **68** (leg. V. Plášek 12.5.1998, OP); **69** (leg. V. Plášek 3.8.2000, OP); **71** (leg. V. Plášek 2.4.1997, OP); **72** (leg. V. Plášek 3.8.2000, OP); **80** (leg. V. Plášek 20.8.1999, OP); **82** (not. V. Plášek 9.9.1999); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **85** (not. V. Plášek 9.9.1999); **86** (leg. V. Plášek 20.8.1999, OP); **87** (leg. V. Plášek 20.8.1999, OP); **91** (not. V. Plášek 1.9.2000).

PL: **3; 12; 113; 117**.

Hist: **CZ:** top area of Velký Stožek Mt., 978 m (leg. J. Duda 6.7.1975, OP); valley of Radvanov stream, 600 m (leg. J. Duda 6.7.1975, OP).

Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922); *valley of Hluchová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje Mt.* (Plášek, ed. 2000b); *Plenisko* (Plášek, ed. 2000b); *valley of Rohovec steam* (Plášek, ed. 2000b)

PL: *common on the whole area* (Rejment-Grochowska 1950); *Wisła, 700 m* (leg. A. Graw 1942, Szweykowski et Kožlicka 1977); *Forest Inspectorate Istebna, forest compartments 82b, 51d, 461, 39g, 560-710 m* (Parusel 2001).

Bazzania trilobata (L.) Gray – fairly frequent; spruce forests.

Rec: **CZ:** **56** (leg. V. Plášek 3.10.1999, OP; not. J. Kučera 3.10.1999); **60** (leg. Z. Platošová 13.10.2001, OP); **69** (leg. V. Plášek 3.8.2000, OP); **71** (leg. V. Plášek 2.4.1997, OP); **72** (leg. V. Plášek 3.8.2000, OP).

PL: **33; 50**.

Hist: **CZ:** valley of Hluchová river (leg. J. Jedlička 21.8.1958, BRNM).

Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922; Duda et Váňa 1990); *valley of Hluchová river* (Duda et Váňa 1990); *valley of Rohovec steam* (Plášek, ed. 2000b)

PL: *common on the whole area* (Rejment-Grochowska 1950); *Istebna-Prędowniec, 500 m* (Klama et al. 1987); *Kubalonka, SW slope* (Klama et al. 1988); *Forest Inspectorate Istebna, forest compartments 82b, 57a, 67a, 51d, 17f, 21, 461, 39g, 550-710 m* (Parusel 2001).

Calypogeiaceae (Müll. Frib.) H. W. Arnell

Calypogeia azurea Stotler et Crotz – common; forest soil, banks of forest roads.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **6** (leg. V. Plášek 21.9.2000, OP; not. J. Kučera 2.10.1999); **8** (leg. V. Plášek 2.10.1999, OP); **10** (not. V. Plášek 27.8.1997); **14** (not. V. Plášek 2.6.2000); **18** (leg. V. Plášek 22.1.1999, teste J. Duda, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **28** (leg. V. Plášek 21.10.2000, OP); **30** (leg. V. Plášek 29.5.2001, OP); **32** (not. V. Plášek 15.6.2001); **33** (not. V. Plášek 15.6.2001); **35** (not. V. Plášek 5.9.2000); **38** (leg. V. Plášek 21.10.1998, teste J. Duda, OP); **41** (leg. V. Plášek 26.8.1997, OP); **44** (not. V. Plášek 14.6.1999); **45** (not. V. Plášek 14.6.1999); **48** (not. V. Plášek 26.8.1997); **49** (leg. V. Plášek 26.8.1997, OP); **51** (leg. V. Plášek 26.8.1997, OP); **52** (not. V. Plášek 3.9.1999); **53** (not. V. Plášek 3.10.1999); **55** (not. V. Plášek 3.10.1999); **56** (not. J. Kučera 3.10.1999; leg. K. Valdštyňová 2000, OP); **58** (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 30.8.2000, teste J. Duda, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **65** (not. V. Plášek 24.6.1997); **66** (leg. V. Plášek 12.5.1998, OP); **67** (not. V. Plášek 24.6.1997); **68** (leg. V. Plášek 12.5.1998, OP); **69** (leg. V. Plášek 3.8.2000, OP); **70** (not. V. Plášek 2.4.1997); **71** (leg. V. Plášek 2.4.1997, OP); **74** (leg. V. Plášek 28.5.1998, det. J. Duda, OP); **76** (not. V. Plášek 28.9.1999); **77** (leg. V. Plášek 17.8.1999, OP); **80** (leg. V. Plášek 20.8.1999, OP); **82** (not. V. Plášek 9.9.1999); **83** (leg. V. Plášek 20.8.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera); **91** (not. V. Plášek 1.9.2000).
PL: **3; 12.**

Hist: **CZ:** valley of Hluchová river (leg. J. Jedlička 16.8.1958, 18.8.1958 et 21.8.1958, BRNM); top area of Velký Sošov, 800 m (leg. J. Duda 29.5.1971, OP); valley of Radvanov stream, 600 m (leg. J. Duda 6.7.1975, OP); valley of Kotelnice stream, 700 m (leg. J. Duda 6.7.1975, OP); W slope of Krkavice hill, 850 m (leg. J. Duda 7.7.1975, OP).

PL: Kobyla Mt, E slope, 800 m (leg. I. Korlacka 17. 07. 1985, SOSN); Wisła-Łabajów, 550 m; (leg. I. Korlacka 07.09. 1985, SOSN).

Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922; Duda et Váňa 1986); *Velký Sošov* (Duda et Váňa 1986); *valley of Hluchová river* (Duda et Váňa 1986; Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Radvanov stream* (Duda et Váňa 1986); *W slope of Krkavice hill* (Duda et Váňa 1986); *between Nýdek village and Velká Čantoryje Mt.* (Plášek, ed. 2000b); *Velká Čantoryje Mt.* (Plášek, ed. 2000b); *Plenisko* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991; Plášek, ed. 2000b).

PL: *common on the whole area* (Rejment-Grochowska 1950); *Mt Wielka Czantoria, NE slope, 840 m* (Klama et al. 1987); *Forest Inspectorate Istebna, forest compartments 82b, 67a, 17f, 21, 461, 39g, 560-710 m* (Parusel 2001).

C. fissa (L.) Raddi – very rare; moist bank of the stream.

Rec: **CZ:** **63** (leg. V. Plášek 3.8.2000, OP).

C. integristipula Steph. – fairly frequent; forest soil.

Rec: **CZ:** **6** (leg. I. Novotný 2.10.1999, BRNM; not. J. Kučera 2.10.1999); **38** (leg. V. Plášek 21.10.1998, teste J. Duda, OP); **55** (not. V. Plášek 3.10.1999); **69** (leg. V. Plášek 3.8.2000, OP); **74** (leg. V. Plášek 12.5.1998 et 28.5.1998, teste J. Duda, OP); **78** (leg. V. Plášek 12.5.1998 et 28.5.1998, teste J. Duda, OP).

PL: **113.**

Hist: **CZ:** valley of Radvanov stream, 600 m (leg. J. Duda 6.7.1975, OP); valley of Kotelnice stream, 700 m (leg. J. Duda 6.7.1975, OP).

Lit: **CZ:** *valley of Kotelnice stream* (Duda et Váňa 1987c); *valley of Radvanov stream* (Duda et Váňa 1987c); *Velká Čantoryje Mt.* (Plášek, ed. 2000b).

C. muelleriana (Schiffn.) Müll. Frib. – rare; moist soil near the streams.

Rec: **CZ:** **6** (leg. J. Kučera 2.10.1999, herb. J. Kučera); **18** (leg. V. Plášek 22.1.1999, teste J. Duda, OP); **38** (leg. V. Plášek 21.10.1998, OP); **56** (leg. J. Kučera 3.10.1999, herb. J. Kučera); **78** (leg. V. Plášek 28.5.1998, teste J. Duda, OP).

Hist: **CZ:** valley of Hluchová river (leg. J. Jedlička 17.8.1958 et 19.8.1958 sub *Calypogeia azurea*, rev. J. Duda, BRNM).

PL: Wisła-Łabajów, 550 m (leg. I. Korlacka 31. 08. 1985, SOSN).

Lit: **CZ:** *valley of Hlučová river* (Duda et Váňa 1987b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje Mt.* (Plášek, ed. 2000b); *valley of Rohovec steam* (Plášek, ed. 2000b).
PL: *Forest Inspectorate Istebna, forest compartment 49g, 650 m* (Parusel 2001).

C. neesiana (C. Massal. et Carest.) Müll. Frib. – very rare; forest soil.

Rec: **CZ:** **42** (leg. R. Borski 28.4.1997, det. V. Plášek, OP)

Lit: **PL:** *Mt Kiczory* (Rejment-Grochowska 1950).

C. suecica (H. W. Arnell et J. Perss.) Müll. Frib. – recently not found.

Lit: **CZ:** *Loc. “Městský les” forest nearby Jablunkov town* (Kulesza 1922; Duda et Váňa 1987b).

Cephaloziaceae Migula

Cephalozia bicuspidata (L.) Dumort – common; rotten wood, moist forest soil.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **6** (leg. V. Plášek 27.8.1997 et 2.10.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera); **8** (leg. V. Plášek 2.10.1999, teste J. Duda, OP); **10** (not. V. Plášek 27.8.1997); **11** (leg. V. Plášek 27.8.1997, OP); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **18** (leg. V. Plášek 22.1.1999, det. J. Duda, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); **20** (leg. V. Plášek 23.4.1999, det. J. Duda, OP); **21** (leg. V. Plášek 1.10.1999, det. J. Duda, OP); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **28** (leg. V. Plášek 21.10.2000, OP); **35** (not. V. Plášek 5.9.2000); **38** (leg. V. Plášek 21.10.1998, teste J. Duda, OP); **45** (not. V. Plášek 14.6.1999); **48** (not. V. Plášek 26.8.1997); **49** (leg. V. Plášek 26.8.1997, OP); **50** (not. V. Plášek 26.8.1997); **51** (leg. V. Plášek 26.8.1997, OP); **52** (not. V. Plášek 3.9.1999); **53** (not. V. Plášek 3.10.1999); **55** (not. V. Plášek 3.10.1999); **56** (not. J. Kučera 3.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 30.8.2000, det. J. Duda, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **61** (leg. V. Plášek 30.8.2000, det. J. Duda); **65** (not. V. Plášek 24.6.1997); **67** (not. V. Plášek 24.6.1997); **68** (leg. V. Plášek 12.5.1998, teste J. Duda, OP); **69** (leg. V. Plášek 3.8.2000, OP); **70** (not. V. Plášek 2.4.1997); **71** (leg. V. Plášek 2.4.1997, OP); **73** (not. V. Plášek 20.7.2000); **74** (leg. V. Plášek 12.5.1998 et 28.5.1998, det. J. Duda, OP); **78** (leg. V. Plášek 12.5.1998, OP); **80** (leg. V. Plášek 20.8.1999, OP); **82** (not. V. Plášek 9.9.1999); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **88** (not. V. Plášek 9.9.1999); **89** (not. V. Plášek 12.10.2001); **91** (not. V. Plášek 1.9.2000).
PL: **12; 113; 117.**

Hist: **CZ:** *slope of Krkavice hill, 850 m* (leg. J. Duda 6.7.1975, OP).

Lit: **CZ:** *Loc. “Městský les” forest nearby Jablunkov town* (Kulesza 1922); *valley of Hlučová river* (Plášek, ed. 2000b); *Plášek, Kučera, et Duda 2000*); *between Nýdek village and Velká Čantoryje Mt.* (Plášek, ed. 2000b); *Velká Čantoryje Mt.* (Plášek, ed. 2000b); *Plenisko* (Plášek, ed. 2000b); *valley of Rohovec steam* (Duda 1991; Plášek, ed. 2000b).

PL: *common on the whole area* (Rejment-Grochowska 1950); *Kubalonka, SW slope* (Klama et al. 1987); *Mt Wielka Czantoria, NE slope, 855 m* (Klama et al. 1988); *Istebna-Prędowniec, 500 m* (Klama et al. 1988); *Forest Inspectorate Istebna, forest compartments 67a, 21, 590 m* (Parusel 2001).

C. catenulata (Huebener) Lindb – recently not found.

Lit: **PL:** *Mt Kobyla* (Rejment-Grochowska 1950); *valley of the stream Dziechcinka* (Rejment-Grochowska 1950); *valley of the stream Jawornik* (Rejment-Grochowska 1950).

C. connivens (Dicks.) Lindb. – recently not found.

Lit: **PL:** *common on the whole area* (Rejment-Grochowska 1950).

C. lunulifolia (Dumort.) Dumort. – recently not found.

Lit: **CZ:** *Jablunkov town* (Kulesza 1922; Duda et Váňa 1985b)

PL: *Mt Kiczory* (Rejment-Grochowska 1950); *Mt Wielki Stożek* (Rejment-Grochowska 1950); *Kubalonka* (Rejment-Grochowska 1950); *valley of the Dziechcinka stream* (Rejment-Grochowska 1950); *valley of the Labajów stream* (Rejment-Grochowska 1950).

Nowellia curvifolia (Dicks.) Mitt. – recently not found.

Hist: **CZ:** *valley of Hlučová river* (leg. J. Jedlička 21.8.1958, BRNM).

Lit: **CZ:** *valley of Hlučová river* (Duda et Váňa 1983).

PL: *Mt Kobyla* (Rejment-Grochowska 1950); *valley of the Dziechcinka stream* (Rejment-Grochowska

1950); *valley of the Jawornik stream* (Rejment-Grochowska 1950); *Wista* (leg. A. Graw 1942, Szweykowski 1969).

Odontoschisma denudatum (Mart.) Dumort. – recently not found.

Lit: **PL:** *Ustroń* (Milde 1852).

Cephaloziellaceae Douin

Cephaloziella divaricata (Sm.) Schiffn. – very rare; open soil.

Rec: **CZ:** **8** (leg. J. Kučera 2.10.1999, herb. J. Kučera).

Lit: **CZ:** *between Nýdek village and Velká Čantoryje Mt.* (Plášek, ed. 2000b).

C. rubella (Nees) Warnst. – very rare; open soil, bank of road.

Rec: **CZ:** **8** (leg. J. Kučera 2.10.1999, herb. J. Kučera); **80** (leg. V. Plášek 20.8.1999, teste J. Duda, OP).

Lit: **CZ:** *between Nýdek village and Velká Čantoryje Mt.* (Plášek, ed. 2000b).

PL: *Mt Wielki Stożek* (Rejment-Grochowska 1950).

Lophoziaceae Macv.

Anastrophyllum hellerianum (Nees ex Lindenb.) R. M. Schust. – recently not found.

Lit: **PL:** *Mt Kobyla* (Rejment-Grochowska 1950).

Lophozia attenuata (Mart.) Dumort. – very rare; forest soil, rotten wood.

Rec: **CZ:** **6** (not. J. Kučera 2.10.1999); **83** (leg. V. Plášek 2.10.1999, teste J. Duda, OP).

Lit: **CZ:** *Velká Čantoryje Mt.* (Plášek, ed. 2000b); *Plenisko* (Plášek, ed. 2000b).

PL: *common on the whole area* (Rejment-Grochowska 1950).

L. barbata (Schmid. ex Schreb.) Dumort. – very rare; forest soil.

Rec: **CZ:** **6** (leg. V. Plášek 21.9.2000, OP; not. J. Kučera 2.10.1999).

Hist: **CZ:** *valley of Hlučová river* (leg. J. Jedlička 16.8.1958, BRNM; leg. J. Duda 29.5.1971, OP).

Lit: **CZ:** *Jablunkov* (Kulesza 1922; Duda et Váňa 1985a); *valley of Hlučová river* (Duda et Váňa 1985a; Plášek, Kučera, et Duda 2000); *Velká Čantoryje Mt.* (Plášek, ed. 2000b).

PL: *Mt Wielki Stożek* (Rejment-Grochowska 1950); *Mt Kiczory* (Rejment-Grochowska 1950); *Mt Wielka Czantoria* (Rejment-Grochowska 1950); *Mt Mała Czantoria* (Rejment-Grochowska 1950); *valley of the stream Jawornik* (Rejment-Grochowska 1950); *valley of the stream Dziehcinka* (Rejment-Grochowska 1950); *valley of the stream Łabajów* (Rejment-Grochowska 1950).

L. excisa (Dicks.) Dumort. – very rare; bank of a road.

Rec: **CZ:** **8** (leg. J. Kučera 2.10.1999, herb. J. Kučera); **80** (leg. V. Plášek 20.8.1999, teste J. Duda, OP).

Lit: **CZ:** *Jablunkov* (Kulesza 1922; Duda et Váňa 1992); *between Nýdek village and Velká Čantoryje Mt.* (Plášek, ed. 2000b).

PL: *Dziehcinka* (Rejment-Grochowska 1950).

L. incisa (Schrad.) Dumort – recently not found.

Lit: **PL:** *Kubalonka* (Rejment-Grochowska 1950).

L. longidens (Lindb.) Macoun – recently not found.

Lit: **PL:** *Wielka Czantoria Mt* (Rejment-Grochowska 1950); *valley of the stream Dziehcinka* (Rejment-Grochowska 1950); *valley of the stream Jawornik* (Rejment-Grochowska 1950).

L. obtusa (Lindb.) A. Evans – recently not found.

Lit: **CZ:** *Loc. “Městský les” forest nearby Jablunkov town* (Kulesza 1922); *Loc. “Městský les” forest nearby Jablunkov town* (Duda et Váňa 1990).

* *L. obtusa f. acutiloba* - *Loc. “Městský les” forest nearby Jablunkov town* (Kulesza 1922).

L. sudetica (Nees ex Huebener) Grolle – rare; forest soil, humus on shady rocks.

Rec: **CZ:** **8** (leg. V. Plášek 2.10.1999, teste J. Duda, OP); **51** (leg. V. Plášek 26.8.1997, teste J. Duda, OP); **74** (leg. V. Plášek 12.5.1998 et 28.5.1998, teste J. Duda, OP); **88** (not. V. Plášek 9.9.1999).

Lit: **CZ:** *between Nýdek village and Velká Čantoryje Mt.* (Plášek, ed. 2000b).

PL: *Mt Mała Czantoria* (Rejment-Grochowska 1950); *valley of the stream Dziehcinka* (Rejment-

Grochowska 1950).

L. ventricosa (Dicks.) Dumort. – very rare; forest soil.

Rec: **CZ: 65** (not. V. Plášek 24.6.1997); **74** (leg. V. Plášek 30.5.1998, teste J. Duda, OP).

Hist: **CZ: top area of Velký Stožek Mt., 978 m** (leg. J. Duda 6.7.1975, OP).

Lit: **PL: common on the whole area** (Rejment-Grochowska 1950).

Tritomaria exsecta (Schmidel) Loeske – very rare; forest soil.

Rec: **CZ: 83** (leg. V. Plášek 2.10.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera).

Hist: **CZ: valley of Hluchová river** (leg. J. Jedlička 21.8.1958, BRNM); top area of Velký Stožek Mt., 978 m (leg. J. Duda 6.7.1975, OP).

Lit: **CZ: Loc. “Městský les” forest nearby Jablunkov town** (Kulesza 1922; Duda et Váňa 1982b); *valley of Hluchová river* (Duda et Váňa 1982b); *Velký Stožek* (Duda et Váňa 1982b); *Plenisko* (Plášek, ed. 2000b)

PL: common on the whole area (Rejment-Grochowska 1950).

T. exsectiformis (Breidl.) Loeske – recently not found.

Lit: **PL: Mt Kobyla** (Rejment-Grochowska 1950).

T. quinqueidentata (Huds.) H. Buch – recently not found.

Lit: **PL: Kubalonka** (Rejment-Grochowska 1950); *valley of the stream Jawornik* (Rejment-Grochowska 1950); *valley of the stream Dziechcinka* (Rejment-Grochowska 1950).

Jamesoniella autumnalis (DC.) Steph. – very rare; humus on shady boulders, sprinkled stones.

Rec: **CZ: 19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP); **47** (leg. V. Plášek 29.5.2001, det. J. Duda, OP).

Hist: **CZ: valley of Hluchová river** (leg. J. Jedlička 20.8.1958 et 21.8.1958 sub *Jungermannia hyalina*, rev. Duda, BRNM).

Lit: **CZ: Loc. “Městský les” forest nearby Jablunkov town** (Kulesza 1922); *valley of Hluchová river* (Duda et Váňa 1970; Plášek 2000a; Plášek, Kučera, et Duda 2000).

Jungermanniaceae Rchb.

Jungermannia caespiticia Lindenb. - very rare; moist soil near a stream.

Rec: **CZ: 56** (leg. V. Plášek 3.10.1999, det. J. Duda, OP).

Lit: **CZ: valley of Rohovec steam** (Plášek, ed. 2000b).

J. gracillima Sm. – frequent; open soil, banks of forest roads.

Rec: **CZ: 6** (leg. V. Plášek 27.8.1997, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera); **7** (leg. V. Plášek 21.9.2000, OP); **8** (leg. V. Plášek 2.10.1999, teste J. Duda, OP; leg. I. Novotný 2.10.1999, BRNM; leg. I. Vacínová 2.10.1999, herb. I. Vacínová); **10** (not. V. Plášek 27.8.1997); **20** (leg. V. Plášek 23.4.1999, det. J. Duda, OP); **21** (leg. V. Plášek 1.10.1999, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **28** (leg. V. Plášek 21.10.2000, OP); **35** (not. V. Plášek 5.9.2000); **45** (not. V. Plášek 14.6.1999); **46** (leg. V. Plášek 26.8.1997, OP); **48** (not. V. Plášek 26.8.1997); **50** (not. V. Plášek 26.8.1997); **51** (leg. V. Plášek 26.8.1997, teste J. Duda, OP); **52** (not. V. Plášek 3.9.1999); **54** (leg. K. Valdštyňová 2000, OP); **56** (not. V. Plášek 3.10.1999); **58** (leg. V. Plášek 30.8.2000, teste J. Duda, OP); **80** (leg. V. Plášek 20.8.1999, OP); **82** (not. V. Plášek 9.9.1999); **84** (leg. V. Plášek 20.8.1999, OP).

Hist: **CZ: Jablunkov town** (Kulesza 1922); valley of Hluchová river (leg. J. Jedlička 19.8.1958, BRNM).

Lit: **CZ: Loc. “Městský les” forest nearby Jablunkov town** (Kulesza 1922); *valley of Hluchová river* (Duda et Váňa 1971b; Plášek, Kučera, et Duda 2000); *between Nýdek village and Velká Čantoryje Mt.* (Plášek, ed. 2000b); *Velká Čantoryje Mt.* (Plášek, ed. 2000b); *valley of Rohovec steam* (Plášek, ed. 2000b)

PL: Kubalonka (Rejment-Grochowska 1950); *Mt Wielki Stožek* (Rejment-Grochowska 1950); *Mt Soszów Wielki* (Rejment-Grochowska 1950); *valley of the Jawornik stream* (Rejment-Grochowska 1950).

J. hyalina Lyell - very rare; moist soil near a stream.

Rec: **CZ: 61** (leg. V. Plášek 30.8.2000, det. J. Duda, OP).

Hist: **CZ: valley of Hluchová steam, slope of Velký Stožek Mt.** (leg. J. Jedlička 20.8.1958, BRNM).

Lit: **CZ: valley of Hluchová river** (Duda et Váňa 1971a).

PL: Mt Kobyla (Rejment-Grochowska 1950).

J. leiantha Grolle – fairly frequent; rotten wood.

Rec: **CZ:** **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera; leg. I. Vacínová 1.10.1999, herb. I. Vacínová); **24** (not. V. Plášek 3.9.1999); **52** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **58** (leg. Z. Platošová 22.6.2001, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **83** (leg. V. Plášek 2.10.1999, OP; not. J. Kučera 2.10.1999).

Lit: **CZ:** *valley of Hlučová river* (Plášek 2000a; Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Plenisko* (Plášek, ed. 2000b).

PL: *Mt Kobyla* (Rejment-Grochowska 1950); *valley of the Labajów stream* (Rejment-Grochowska 1950); *Mt Wielka Czantoria, NE slope, valley of the Suchy Potok stream, 710 m* (Klama et al. 1987).

J. pumila With. – rare; humus on shady rocks and boulders.

Rec: **CZ:** **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **21** (leg. V. Plášek 1.10.1999, det. J. Duda, OP); **61** (leg. V. Plášek 30.8.2000, OP).

Lit: **CZ:** *valley of Hlučová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

J. sphaerocarpa Hook. – recently not found.

Lit: **PL:** *Mt Wielka Czantoria* (Rejment-Grochowska 1950); *Mt Wielki Stożek* (Rejment-Grochowska 1950).

J. subelliptica (Limpr. ex Kaal.) Lev. – very rare; humus on shady rocks and boulders.

Rec: **CZ:** **20** (leg. V. Plášek 23.4.1999, det. J. Duda, teste J. Kučera, OP).

Hist: **CZ:** *valley of Radvanov stream, 600 m* (leg. J. Duda 6.7.1975, OP).

Lit: **CZ:** *valley of Hlučová river* (Plášek 2000a; Plášek, Kučera, et Duda 2000).

Mylia taylorii (Hook.) Gray – recently not found.

Lit: **PL:** *Mt Soszów Wielki* (Rejment-Grochowska 1950).

Nardia geoscyphus (De Not.) Lindb. - very rare; bank of a road.

Rec: **CZ:** **80** (leg. V. Plášek 20.8.1999, det. J. Duda, OP).

Hist: **CZ:** *W slope of Krkavice hill, 850 m* (leg. J. Duda 6.7.1975, OP).

Lit: **CZ:** *Jablunkov town* (Kulesza 1922); *Jablunkov town* (Duda et Váňa 1972).

PL: *Mt Kobyla* (Rejment-Grochowska 1950); *Kubalonka* (Rejment-Grochowska 1950); *Mt Wielka Czantoria* (Rejment-Grochowska 1950); *valley of the stream Głębiczek* (Rejment-Grochowska 1950).

N. scalaris Gray very rare; moist open soil.

Rec: **CZ:** **8** (leg. I. Novotný 2.10.1999, BRNM; leg. I. Vacínová 2.10.1999, herb. I. Vacínová); **56** (not. V. Plášek 3.10.1999).

Hist: **CZ:** *Nýdek vilage* (leg. J. Jedlička 18.8.1958 et 22.8.1958, BRNM).

Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922); *Nýdek* (Duda et Váňa 1972); *between Nýdek village and Velká Čantoryje Mt.* (Plášek, ed. 2000b); *valley of Rohovec steam* (Plášek, ed. 2000b).

PL: *common on the whole area* (Rejment-Grochowska 1950).

Gymnomitriaceae Migula

Marsupella emarginata (Ehrh.) Dumort. – recently not found.

Lit: **PL:** *Mt Kobyla* (Rejment-Grochowska 1950).

M. funckii (F. Weber et D. Mohr) Dumort. – recently not found.

Lit: **PL:** *Wielka Czantoria Mt.* (Rejment-Grochowska 1950); *Wielki Stożek Mt.* (Rejment-Grochowska 1950).

Scapaniaceae Migula

Diplophyllum albicans (L.) Dumort. – fairly frequent; humus on shady rocks.

Rec: **CZ:** **13** (leg. V. Plášek 3.9.1999, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; not. J. Kučera 1.10.1999); **48** (not. V. Plášek 26.8.1997); **58** (leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 7.10.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **74** (leg. V. Plášek 28.5.1998, det. J. Duda, OP).

PL: **71**.

Hist: **CZ:** valley of Radvanov stream, 600 m (leg. J. Duda 6.7.1975, OP).
Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922; Duda et Váňa 1980a); *valley of Radvanov stream* (Duda et Váňa 1980a); *valley of Hluchová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).
PL: *Mt Wielka Czantoria* (Rejment-Grochowska 1950); *valley of the Łabajów stream* (Rejment-Grochowska 1950); *valley of the Dziechcinka stream* (Rejment-Grochowska 1950).

D. obtusifolium (Hook.) Dumort. – rare; humus on shady rocks and boulders.

Rec: **CZ:** **19** (not. V. Plášek 1.10.1999); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **52** (not. V. Plášek 3.9.1999).

Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922; Duda et Váňa 1980b); *valley of Hluchová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).
PL: *Mt Kobyla* (Rejment-Grochowska 1950); *Kubalonka* (Rejment-Grochowska 1950).

D. taxifolium (Wahlenb.) Dumort. - very rare; humus on shady rocks and boulders.

Rec: **CZ:** **7** (leg. V. Plášek 21.9.2000, OP); **8** (leg. V. Plášek 2.10.1999, teste J. Duda, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera).

Lit: **CZ:** *between Nýdek village and Velká Čantoryje Mt.* (Plášek, ed. 2000b).

Scapania carinthiaca Jack ex Lindb. – recently not found.

Lit: **PL:** *valley of the Jawornik stream* (Rejment-Grochowska 1950).

Scapania curta (Mart.) Dumort. - very rare; open soil.

Rec: **CZ:** **7** (leg. V. Plášek 21.9.2000, OP); **8** (leg. V. Plášek 2.10.1999, teste J. Duda, OP).

Lit: **CZ:** *between Nýdek village and Velká Čantoryje Mt.* (Plášek, ed. 2000b).

PL: *Mt Wielka Czantoria* (Rejment-Grochowska 1950); *Mt Wielki Stożek* [var. *geniculata* (Massal.) K. M., Rejment-Grochowska 1950).

S. irrigua (Nees) Nees - very rare; open soil.

Rec: **CZ:** **51** (leg. V. Plášek 26.8.1997, teste J. Duda, OP).

Lit: **PL:** *Mt Wielka Czantoria* (Rejment-Grochowska 1950); *Kubalonka* (Rejment-Grochowska 1950).

S. mucronata H. Buch - very rare; open soil.

Rec: **CZ:** **8** (leg. J. Kučera 2.10.1999, herb. J. Kučera).

Lit: **CZ:** *between Nýdek village and Velká Čantoryje Mt.* (Plášek, ed. 2000b).

S. nemorea (L.) Grolle – common; sprinkled stones, rotten wood, banks of the streams.

Rec: **CZ:** **6** (not. J. Kučera 2.10.1999); **11** (leg. V. Plášek 27.8.1997, OP); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **18** (leg. V. Plášek 22.1.1999, teste J. Duda, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; leg. I. Vacínová 1.10.1999, herb. I. Vacínová; not. J. Kučera 1.10.1999); **20** (leg. V. Plášek 23.4.1999, det. J. Duda, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **29** (leg. V. Plášek 29.5.2001, OP); **31** (leg. V. Plášek 29.5.2001, OP); **38** (leg. V. Plášek 21.10.1998, OP); **52** (not. V. Plášek 3.9.1999); **55** (not. V. Plášek 3.10.1999); **56** (not. J. Kučera 3.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 30.8.2000, teste J. Duda, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **65** (not. V. Plášek 24.6.1997); **68** (leg. V. Plášek 12.5.1998, teste J. Duda, OP); **73** (not. V. Plášek 20.7.2000); **74** (leg. V. Plášek 28.5.1998, teste J. Duda, OP); **83** (leg. V. Plášek 20.8.1999 et 2.10.1999, OP; not. J. Kučera 2.10.1999); **89** (leg. V. Plášek 12.10.2001, OP).
PL: **12; 43; 99.**

Hist: **CZ:** Jablunkov, valley of Radvanov stream, 600 m (leg. J. Duda 6.7.1975, OP); Písečná, valley of Kotelnice stream, 700 m (leg. J. Duda 6.7.1975, OP).

Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Duda et Váňa 1970; Kulesza 1922); *valley of Hluchová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje Mt.* (Plášek, ed. 2000b); *Plenisko* (Plášek, ed. 2000b); *valley of Rohovec steam* (Duda 1991; Plášek, ed. 2000b)
* *S. nemorea* var. *alata* - *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922)
* *S. nemorea* var. *aconiensis* - *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922)
PL: *common on the whole area* (Rejment-Grochowska 1950); *Mt Wielka Czantoria, valley of the Suchy Potok stream, 570 m* (Klama et al. 1987); *Mt Wielki Stożek* (Hausbrandt 1949); *Wista* (Hausbrandt 1949).

S. umbrosa (Schrad.) Dumort. – rare; open soil, rotten wood.

Rec: **CZ:** **19** (not. J. Kučera 1.10.1999); **21** (leg. V. Plášek 1.10.1999, det. J. Duda, OP); **51** (leg. V. Plášek 26.8.1997, teste J. Duda, OP); **80** (leg. V. Plášek 20.8.1999, OP); **83** (leg. V. Plášek 2.10.1999, teste J. Duda, OP; not. J. Kučera 2.10.1999).

Lit: **CZ:** *valley of Hlučová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Plenísko* (Plášek, ed. 2000b).

PL: common on the whole area (Rejment-Grochowska 1950).

S. undulata (L.) Dumort. – common; sprinkled stones, rotten wood, banks of the streams.

Rec: **CZ:** **13** (leg. V. Plášek 3.9.1999, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; not. J. Kučera 1.10.1999); **22** (not. V. Plášek 1.10.1999); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **25** (not. V. Plášek 1.10.1999); **42** (leg. R. Borski 28.4.1997, det. J. Duda, OP); **47** (not. V. Plášek 12.5.2001); **52** (not. V. Plášek 3.9.1999); **55** (not. V. Plášek 3.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP); **59** (leg. Z. Platošová 26.8.2001, OP); **60** (leg. Z. Platošová 13.10.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **64** (leg. V. Plášek 3.8.2000, OP); **68** (leg. V. Plášek 12.5.1998, teste J. Duda, OP); **70** (not. V. Plášek 2.4.1997); **73** (not. V. Plášek 20.7.2000); **74** (leg. V. Plášek 28.5.1998, teste J. Duda, OP); **78** (leg. V. Plášek 12.5.1998 et 28.5.1998, teste J. Duda, OP); **79** (not. V. Plášek 28.9.1999); **80** (leg. V. Plášek 20.8.1999, OP); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **84** (leg. V. Plášek 9.9.1999, OP); **92** (leg. V. Plášek 9.9.1999, OP).

PL: **3; 12; 117.**

Lit: **CZ:** *valley of Hlučová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Plenísko* (Plášek, ed. 2000b).

PL: common on the whole area (Rejment-Grochowska 1950).

Geocalycaceae H. Klinggr.

Chiloscyphus coadunatus (Sw.) J. J. Engel et R. M. Schust. – common; moist soil near the streams.

Rec: **CZ:** **4** (not. V. Plášek 12.10.2001); **5** (not. V. Plášek 30.9.1999); **6** (not. J. Kučera 2.10.1999); **15** (not. V. Plášek 30.9.1999); **18** (leg. V. Plášek 22.1.1999, teste J. Duda, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; not. J. Kučera 1.10.1999); **20** (leg. V. Plášek 23.4.1999, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **32** (not. V. Plášek 15.6.2001); **33** (not. V. Plášek 15.6.2001); **52** (not. V. Plášek 3.9.1999); **55** (not. V. Plášek 3.10.1999); **56** (not. J. Kučera 3.10.1999); **58** (leg. Z. Platošová 4.8.2001, OP; leg. V. Plášek 30.8.2000, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **67** (not. V. Plášek 24.6.1997); **77** (leg. V. Plášek 17.8.1999, OP); **80** (leg. V. Plášek 20.8.1999, OP); **88** (not. V. Plášek 9.9.1999).

PL: **27; 113; 117.**

Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922); *valley of Hlučová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok stream* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *Mt Kobyla* (Rejment-Grochowska 1950); *Mt Wielka Czantoria* (Rejment-Grochowska 1950); *Mt Mała Czantoria* (Rejment-Grochowska 1950); *Istebna-Prędowniec, 500 m* (Klama et al. 1988).

C. minor (Nees) J. J. Engel et R. M. Schust. – very rare; gravel bank of a stream.

Rec: **CZ:** **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera).

Lit: **CZ:** *valley of Hlučová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

C. pallescens (Ehrh. ex Hoffm.) Dumort. – rare; banks of the streams, spring areas.

Rec: **CZ:** **68** (leg. V. Plášek 12.5.1998, teste J. Duda, OP); **72** (leg. V. Plášek 3.8.2000, OP); **74** (leg. V. Plášek 28.5.1998, teste J. Duda, OP); **77** (leg. V. Plášek 17.8.1999, OP); **84** (leg. V. Plášek 20.8.1999 et 9.9.1999, OP).

C. polyanthos (L.) Corda – common; banks of the streams, spring areas.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **5** (not. V. Plášek 30.9.1999); **18** (leg. V. Plášek 22.1.1999, teste J. Duda, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; leg. I. Vacínová 1.10.1999, herb. I. Vacínová; not. J. Kučera 1.10.1999); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **29** (leg. V. Plášek 29.5.2001, OP); **51** (leg. V. Plášek 26.8.1997, OP); **52** (not. V. Plášek 3.9.1999); **56** (not. J. Kučera 3.10.1999); **57** (not. V. Plášek 3.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 12.5.1998, teste J. Duda, OP); **59** (leg. Z. Platošová 25.8.2001,

OP); **60** (leg. Z. Platošová 30.9.2001, OP); **61** (not. V. Plášek 30.8.2000); **67** (not. V. Plášek 24.6.1997); **70** (not. V. Plášek 2.4.1997); **71** (leg. V. Plášek 2.4.1997, OP); **73** (not. V. Plášek 20.7.2000); **74** (leg. V. Plášek 28.5.1998, teste J. Duda, OP); **78** (leg. V. Plášek 12.5.1998, teste J. Duda, OP); **79** (not. V. Plášek 28.9.1999); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999).

PL: 12; 113.

- Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922); *valley of Hluchová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok stream* (Plášek, ed. 2000b); *Plenisko* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b)
PL: *Mt Wielka Czantoria* (Rejment-Grochowska 1950); *valley of the Dziehcinka stream* (var. *rivularis* Loeske, Rejment-Grochowska 1950); *valley of the Łabajów stream* (var. *rivularis* Loeske, Rejment-Grochowska 1950).

C. profundus (Nees) J. J. Engel et R. M. Schust. – common; rotten wood.

- Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **6** (leg. V. Plášek 27.8.1997, OP; not. J. Kučera 2.10.1999); **7** (leg. V. Plášek 21.9.2000, OP); **8** (not. V. Plášek 2.10.1999); **9** (leg. V. Plášek 27.8.1997, OP); **12** (leg. V. Plášek 27.8.1997, OP); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **18** (leg. V. Plášek 22.1.1999, teste J. Duda, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); **21** (leg. V. Plášek 1.10.1999, det. J. Duda, OP); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **29** (leg. V. Plášek 29.5.2001, OP); **30** (leg. V. Plášek 29.5.2001, OP); **35** (not. V. Plášek 5.9.2000); **37** (not. V. Plášek 12.5.2001); **38** (leg. V. Plášek 21.10.1998, OP); **46** (leg. V. Plášek 26.8.1997, OP); **49** (leg. V. Plášek 26.8.1997, OP); **52** (not. V. Plášek 3.9.1999); **55** (not. V. Plášek 3.10.1999); **56** (not. J. Kučera 3.10.1999); **57** (not. V. Plášek 3.10.1999); **58** (leg. Z. Platošová 25.6.2001, OP; leg. V. Plášek 30.8.2000, teste J. Duda, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **71** (leg. V. Plášek 2.4.1997, OP); **72** (leg. V. Plášek 3.8.2000, OP); **77** (leg. V. Plášek 17.8.1999, OP); **78** (leg. V. Plášek 12.5.1998, OP); **79** (not. V. Plášek 28.9.1999); **80** (leg. V. Plášek 20.8.1999, OP); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **84** (leg. V. Plášek 9.9.1999, OP); **85** (not. V. Plášek 9.9.1999); **89** (not. V. Plášek 12.10.2001); **91** (not. V. Plášek 1.9.2000).
PL: 2; 3; 12; 33; 113; 117.

Hist: **PL:** Istebna, valley of the Olecka stream, 600 (leg. A. Bialik 08. 04. 1991, SOSN).

- Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922); *valley of Hluchová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *between Nýdek village and Velká Čantoryje Mt.* (Plášek, ed. 2000b); *Velká Čantoryje Mt.* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: common on the whole area (Rejment-Grochowska 1950); *Kubalonka, SW slope* (Klama et al. 1987).

Plagiochilaceae (Jörg.) Müll. Frib.

Plagiochila asplenioides (L. emend Taylor) Dumort. – fairly frequent; shady places near the streams.

- Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **18** (leg. V. Plášek 22.1.1999, teste J. Duda, OP); **19** (not. J. Kučera 1.10.1999); **20** (leg. V. Plášek 23.4.1999, det. J. Duda, OP); **58** (leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 26.8.2001, OP); **60** (leg. Z. Platošová 14.10.2001, OP); **70** (not. V. Plášek 2.4.1997).

- Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922); *valley of Hluchová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

PL: common on the whole area (Rejment-Grochowska 1950); *Forest Inspectorate Istebna, forest compartment 57a, 550* (Parusel 2001).

P. porelloides (Torr. ex Nees) Lindenb. – common; wet soil near the streams, moist forest soil.

- Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **6** (leg. V. Plášek 2.10.1999, OP; not. J. Kučera 2.10.1999); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **18** (leg. V. Plášek 22.1.1999, teste J. Duda, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); **20** (leg. V. Plášek 23.4.1999, OP); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **26** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **33** (not. V. Plášek 15.6.2001); **36** (not. V. Plášek 12.10.2001); **45** (not. V. Plášek 14.6.1999); **47** (not. V. Plášek 12.5.2001); **50** (not. V. Plášek 26.8.1997); **52** (not. V. Plášek 3.9.1999); **53** (not. V. Plášek 3.10.1999); **56** (not. J. Kučera 3.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 30.8.2000, OP); **59**

(leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **62** (not. V. Plášek 3.10.1999); **63** (leg. V. Plášek 3.8.2000, OP); **67** (not. V. Plášek 24.6.1997); **68** (leg. V. Plášek 12.5.1998, OP); **82** (not. V. Plášek 9.9.1999); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999).

PL: 3; 12; 24; 26; 117.

Hist: **CZ:** valley of Hlučová stream, 430 m (leg. J. Duda 29.5.1971, OP).

Lit: **CZ:** valley of Hlučová river (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje Mt.* (Plášek, ed. 2000b); *Plenísko* (Plášek, ed. 2000b); valley of Rohovec stream (Plášek, ed. 2000b)

PL: common on the whole area (Rejment-Grochowska 1950); *Mt Wielka Czantoria*, 840 m (Klama et al. 1988).

Radulaceae (Dumort.) Müll. Frib.

Radula complanata (L.) Dumort. – rare; bark of trees.

Rec: **CZ: 19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; not. J. Kučera 1.10.1999); **20** (leg. V. Plášek 23.4.1999, det. J. Duda, OP); **21** (leg. V. Plášek 1.10.1999, det. J. Duda, OP); **86** (leg. V. Plášek 20.8.1999, OP).

PL: 3.

Lit: **CZ:** Loc. “Městský les” forest nearby Jablunkov town (Kulesza 1922; Duda et Váňa 1978); valley of Hlučová river (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

PL: common on the whole area (Rejment-Grochowska 1950); *Głębce, slope on the Kopydło stream* (Mickiewicz 1965).

Porellaceae Cavers

Porella platyphylla (L.) Pfeiff. – rare; bark of trees, shaded sandstones.

Rec: **CZ: 5** (leg. V. Plášek 30.9.1999, OP); **8** (leg. V. Plášek 2.10.1999, OP); **86** (leg. V. Plášek 20.8.1999, OP).

PL: 3; 12.

Lit: **CZ:** valley of Horský potok stream (Plášek, ed. 2000b); between Nýdek village and Velká Čantoryje Mt. (Plášek, ed. 2000b).

PL: common on the whole area (Rejment-Grochowska 1950); *Głębce, slope on the Kopydło stream* (Mickiewicz 1965).

Frullaniaceae Lorch

Frullania dilatata (L.) Dumort. – fairly frequent; bark of trees.

Rec: **CZ: 5** (leg. V. Plášek 30.9.1999, OP); **13** (leg. V. Plášek 3.9.1999, OP); **17** (leg. V. Plášek 18.10.1999, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; leg. I. Novotný 1.10.1999, BRNM; not. J. Kučera 1.10.1999); **20** (leg. V. Plášek 23.4.1999, det. J. Duda, OP); **22** (not. V. Plášek 1.10.1999); **86** (leg. V. Plášek 20.8.1999, OP).

PL: 14; 117.

Hist: **CZ:** Nýdek, center of the village, on bark of *Fraxinus excelsior*, 400 m (leg. J. Duda 29.5.1971, OP).

Lit: **CZ:** Loc. “Městský les” forest nearby Jablunkov town (Kulesza 1922); Nýdek (Duda et Váňa 1977a); valley of Hlučová river (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); valley of Horský potok stream (Plášek, ed. 2000b).

PL: common on the whole area (Rejment-Grochowska 1950); *Głębce, slope on the Kopydło stream* (Mickiewicz 1965).

F. tamarisci (L.) Dumort. – recently not found.

Lit: **PL:** *Mt Kobyla* (Rejment-Grochowska 1950).

Lejeuneaceae Casares-Gil

Lejeunea cavifolia (Ehrh.) Lindb. - fairly frequent; shady sandstone rocks.

Rec: **CZ: 6** (leg. V. Plášek 2.10.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera); **19** (not. J. Kučera 1.10.1999); **21** (leg. V. Plášek 1.10.1999, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **52** (not. V. Plášek 3.9.1999).

PL: 12.

Lit: **CZ:** valley of Hlučová river (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje Mt.*

(Plášek, ed. 2000b).

PL: *Mt Kobyła* (Rejment-Grochowska 1950); *Wisła* (leg. A. Graw 1942, Szweykowski, Koźlicka 1974).

Fossombroniaceae Hazsl.

Fossombronia wondraczekii (Corda) Lindb. – rare; open soil, arable fields.

Rec: **CZ:** **28** (leg. V. Plášek 21.10.2000, OP); **84** (leg. V. Plášek 20.8.1999, OP); **87** (leg. V. Plášek 20.8.1999, OP).

PL: **5**.

Pelliaceae H. Klinggr.

Pellia endiviifolia (Dicks.) Dumort. – rare; moist banks of the streams.

Rec: **CZ:** **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **52** (not. V. Plášek 3.9.1999); **56** (leg. V. Plášek 3.10.1999, OP; not. J. Kučera 3.10.1999).

Lit: **CZ:** *valley of Hlučová river* (Plášek, Kučera, et Duda 2000); *valley of Rohovec stream* (Plášek, ed. 2000b).

P. epiphylla (L.) Corda – common; banks of the forest roads, wet places near the streams.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **6** (leg. V. Plášek 27.8.1997, OP); **10** (not. V. Plášek 27.8.1997); **11** (leg. V. Plášek 27.8.1997, OP); **14** (not. V. Plášek 2.6.2000); **15** (not. V. Plášek 30.9.1999); **18** (leg. V. Plášek 22.1.1999, teste J. Duda, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; not. J. Kučera 1.10.1999); **22** (not. V. Plášek 1.10.1999); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **33** (not. V. Plášek 15.6.2001); **35** (not. V. Plášek 5.9.2000); **36** (not. V. Plášek 12.10.2001); **37** (not. V. Plášek 12.5.2001); **42** (leg. R. Borski 28.4.1997, det. V. Plášek, OP); **43** (leg. V. Plášek 28.4.1997, OP); **44** (not. V. Plášek 14.6.1999); **45** (not. V. Plášek 14.6.1999); **51** (leg. V. Plášek 26.8.1997, OP); **47** (not. V. Plášek 12.5.2001); **52** (not. V. Plášek 3.9.1999); **53** (not. V. Plášek 3.10.1999); **54** (leg. K. Valdštyňová 2000, OP); **56** (not. J. Kučera 3.10.1999); **57** (not. V. Plášek 3.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **62** (not. V. Plášek 3.10.1999); **67** (not. V. Plášek 24.6.1997); **68** (leg. V. Plášek 12.5.1998, teste J. Duda, OP); **69** (leg. V. Plášek 3.8.2000, OP); **71** (leg. V. Plášek 2.4.1997, OP); **72** (leg. V. Plášek 3.8.2000, OP); **76** (not. V. Plášek 28.9.1999); **79** (not. V. Plášek 28.9.1999); **78** (leg. V. Plášek 12.5.1998, OP); **80** (leg. V. Plášek 20.8.1999, OP); **82** (not. V. Plášek 9.9.1999); **83** (leg. V. Plášek 20.8.1999, OP); **85** (not. V. Plášek 9.9.1999); **89** (not. V. Plášek 12.10.2001).
PL: **3; 12; 113**.

Hist: **CZ:** *valley of Radvanov stream, 600 m* (leg. J. Duda 6.7.1975, OP).

PL: *Mt Kobyła, E slope, 800* (leg. I. Korlacka 17. 07. 1985, SOSN); *Wisła-Łabajów, 550* (leg. I. Korlacka 07. 09. 1985, SOSN).

Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922); *valley of Hlučová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje Mt.* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991; Plášek, ed. 2000b).

PL: *common on the whole area* (Rejment-Grochowska 1950); *Istebna-Prędowiec, 500 m* (Klama et al. 1987); *Mt Wielka Czantoria, NE slope, 840 m* (Klama et al. 1988); *Forest Inspectorate Istebna, forest compartments 461, 49g, 650-710* (Parusel 2001).

P. neesiana (Gottsche) Limpr. – frequent; banks of forest roads.

Rec: **CZ:** **13** (leg. V. Plášek 3.9.1999, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; not. J. Kučera 1.10.1999); **23** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **26** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **50** (not. V. Plášek 26.8.1997); **52** (not. V. Plášek 3.9.1999); **56** (not. J. Kučera 3.10.1999); **74** (leg. V. Plášek 28.5.1998, OP); **83** (not. J. Kučera 2.10.1999); **84** (leg. V. Plášek 20.8.1999, OP); **92** (leg. V. Plášek 9.9.1999, OP).

PL: **117**.

Lit: **CZ:** *valley of Hlučová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Plenisko* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *common on the whole area* (fo. *undulata* Jack, Rejment-Grochowska 1950).

Blassiaceae H. Klinggr.

Blassia pusilla L. – very rare; gravel bank of a stream.

Rec: **CZ:** **92** (leg. V. Plášek 9.9.1999, det. J. Duda, OP).

Lit: **CZ:** *Loc.* “*Městský les*” forest nearby Jablunkov town (Kulesza 1922; Duda et Váňa 1984).

Aneuraceae H. Klinggr.

Aneura pinguis (L.) Dumort. – rare; spring areas.

Rec: **CZ:** **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **52** (not. V. Plášek 3.9.1999); **78** (leg. V. Plášek 12.5.1998 et 28.5.1998, teste J. Duda, OP); **83** (leg. V. Plášek 2.10.1999, OP).

Lit: **CZ:** *Loc.* “*Městský les*” forest nearby Jablunkov town (Kulesza 1922); valley of Hluchová river (Plášek, Kučera, et Duda 2000); *Plenisko* (Plášek, ed. 2000b).

Riccardia chamaedryfolia (With.) Grolle – recently not found.

Lit: **PL:** valley of the *Łabajów stream* (Rejment-Grochowska 1950).

R. latifrons (Lindb.) Lindb. – fairly frequent; rotten wood.

Rec: **CZ:** **18** (leg. V. Plášek 22.1.1999, det. J. Duda, OP); **19** (not. J. Kučera 1.10.1999); **21** (leg. V. Plášek 1.10.1999, det. J. Duda, OP); **24** (leg. V. Plášek 3.9.1999, OP); **47** (leg. V. Plášek 29.5.2001, det. J. Duda, OP); **58** (leg. Z. Platošová 4.8.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **84** (leg. V. Plášek 9.9.1999, teste J. Duda).

Lit: **CZ:** *Loc.* “*Městský les*” forest nearby Jablunkov town (Kulesza 1922; Duda et Váňa 1982a); valley of Hluchová river (Plášek 2000a; Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

PL: *Mt Kobyła* (Rejment-Grochowska 1950).

R. multifida (L.) Gray – very rare; wet banks of the streams, spring areas.

Rec: **CZ:** **60** (leg. Z. Platošová 13.10.2001, OP); **78** (leg. V. Plášek 12.5.1998 et 28.5.1998, teste J. Duda, OP).

Hist: **CZ:** valley of Hluchová river (leg. J. Jedlička 20.8.1958, BRNM).

Lit: **CZ:** valley of Hluchová river (Duda et Váňa 1981); valley of *Kotelnice stream* (Plášek 2000a).

R. palmata (Hedw.) Carruth. - rare; rotten wood.

Rec: **CZ:** **19** (not. V. Plášek 1.10.1999); **52** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **56** (leg. V. Plášek 3.10.1999, OP; not. J. Kučera 3.10.1999); **61** (leg. V. Plášek 30.8.2000, teste J. Duda, OP).

Hist: **CZ:** valley of Hluchová river (leg. J. Jedlička 17.8.1958, BRNM).

Lit: **CZ:** valley of Hluchová river (Duda et Váňa 1982b; Plášek 2000a; Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); valley of *Rohovec steam* (Plášek, ed. 2000b).

PL: *Ustroń* (Milde 1852); *Mt Soszów Wielki* (Rejment-Grochowska 1950); valley of the *Jawornik stream* (Rejment-Grochowska 1950); valley of the *Łabajów stream* (Rejment-Grochowska 1950).

Metzgeriaceae H. Klinggr.

Metzgeria conjugata Lindb. – fairly frequent; shady rocks.

Rec: **CZ:** **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); **20** (leg. V. Plášek 23.4.1999, det. J. Duda, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **52** (not. V. Plášek 3.9.1999); **59** (leg. Z. Platošová 25.8.2001, OP); **68** (leg. V. Plášek 12.5.1998, OP).

PL: **12; 14.**

Hist: **CZ:** valley of Hluchová river (leg. J. Jedlička 16.8.1958, 18.8.1958 et 20.8.1958, BRNM); Filipka (leg. J. Jedlička 20.8.1958, BRNM); near Velký Stožek Mt. (leg. J. Jedlička 20.8.1958, BRNM).

Lit: **CZ:** *Loc.* “*Městský les*” forest nearby Jablunkov town (Kulesza 1922; Duda et Váňa 1989a); valley of Hluchová river (Duda et Váňa 1989a; Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Filipka* (Duda et Váňa 1989a); *Velký Stožek* (Duda et Váňa 1989a).

PL: *Głębcze, slope on the Kopydło stream* (Mickiewicz 1965).

M. furcata (L.) Dumort – frequent; shady rocks, bark of trees.

Rec: **CZ:** **5** (not. V. Plášek 1.10.1999); **6** (not. J. Kučera 2.10.1999); **8** (leg. V. Plášek 2.10.1999, OP); **13** (leg. V. Plášek 3.9.1999, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); **20** (leg. V. Plášek 23.4.1999, det. J. Duda, OP); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **26** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **52** (not. V. Plášek 3.9.1999); **60** (leg. Z. Platošová 30.9.2001, OP); **62** (not. V. Plášek 3.10.1999); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **86** (leg. V. Plášek 20.8.1999, OP).

PL: **3.**

- Hist: **CZ:** valley of Hlučová river (leg. J. Jedlička 18.8.1958, BRNM).
Lit: **CZ:** *valley of Hlučová river* (Duda et Váňa 1989b; Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok stream* (Plášek, ed. 2000b); *between Nýdek village and Velká Čantoryje Mt.* (Plášek, ed. 2000b); *Velká Čantoryje Mt.* (Plášek, ed. 2000b); *Plenísko* (Plášek, ed. 2000b).
PL: *common on the whole area* (Rejment-Grochowska 1950); *Głębce, slope on the Kopydło stream* (Mickiewicz 1965).

Conocephalaceae Müll. Frib. ex Grolle

Conocephalum conicum (L.) Dumort. – common; moist shady places near the streams.

- Rec: **CZ:** **5** (not. V. Plášek 30.9.1999); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **18** (leg. V. Plášek 22.1.1999, teste J. Duda, OP); **19** (leg. V. Plášek 23.4.1999, det. J. Duda, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); **22** (not. V. Plášek 1.10.1999); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **36** (not. V. Plášek 12.10.2001); **52** (not. V. Plášek 3.9.1999); **53** (not. V. Plášek 3.10.1999); **56** (not. V. Plášek 3.10.1999); **58** (leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **62** (not. V. Plášek 3.10.1999); **67** (not. V. Plášek 24.6.1997); **70** (not. V. Plášek 2.4.1997); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999).
PL: **12; 54; 117.**
- Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Duda et Váňa 1973; Kulesza 1922); *valley of Hlučová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok stream* (Plášek, ed. 2000b); *Plenísko* (Plášek, ed. 2000b); *valley of Rohovec steam* (Plášek, ed. 2000b).
PL: *common on the whole area* (Rejment-Grochowska 1950).

Marchantiaceae (Bisch.) Lindley

Preissia quadrata (Scop.) Nees – very rare, shaded sandstone.

- Rec: **PL:** **99.**
Lit: **PL:** *Mt Czantoria* (Limpricht 1876).

Marchantia polymorpha L.

var. polymorpha – common; moist places near the streams, open soil, artificial surface.

- Rec: **CZ:** **15** (not. V. Plášek 30.9.1999); **16** (not. V. Plášek 30.9.1999); **21** (leg. V. Plášek 1.10.1999, det. J. Duda, OP); **24** (leg. V. Plášek 3.9.1999, det. J. Duda, OP); **26** (leg. V. Plášek 14.5.1999, det. J. Duda, OP); **27** (not. V. Plášek 12.10.2001); **31** (leg. V. Plášek 29.5.2001, OP); **34** (not. V. Plášek 15.6.2001); **40** (not. V. Plášek 16.12.1997); **50** (not. V. Plášek 26.8.1997); **52** (not. V. Plášek 3.9.1999); **56** (not. J. Kučera 3.10.1999); **57** (not. V. Plášek 3.10.1999); **58** (leg. V. Plášek 30.8.2000, OP); **60** (leg. Z. Platošová 14.10.2001, OP); **72** (leg. V. Plášek 3.8.2000, OP); **83** (leg. V. Plášek 20.8.1999, OP); **84** (leg. V. Plášek 20.8.1999, OP); **85** (not. V. Plášek 9.9.1999); **86** (leg. V. Plášek 20.8.1999, OP).
PL: **2; 34.**
- Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922); *valley of Hlučová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Rohovec steam* (Plášek, ed. 2000b).
PL: *fairly frequent on the whole area* (Rejment-Grochowska 1950); *Istebna-Prędołwiec, 500 m* (Klama et al. 1988).

var. alpestris Bischl. et Boisselier – very rare; bank of a stream.

- Rec: **CZ:** **19** (not. J. Kučera 1.10.1999; leg. J. Kučera 1.10.1999, herb. J. Kučera).
Lit: **CZ:** *valley of Hlučová river* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

Ricciaceae Rchb.

Riccia bifurca Hoffm. – recently not found.

- Lit: **CZ:** *Jablunkov town* (Kulesza 1922; Duda et Váňa 1975).

R. glauca L. – fairly frequent; arable fields, open soil.

- Rec: **CZ:** **3** (leg. V. Plášek 12.10.2001, OP); **16** (not. V. Plášek 30.9.1999); **39** (not. V. Plášek 16.12.1997); **81** (leg. V. Plášek 12.10.2001, OP); **87** (leg. V. Plášek 20.8.1999, OP); **90** (leg. V. Plášek 12.10.2001, OP).
Lit: **CZ:** *Loc. "Městský les" forest nearby Jablunkov town* (Kulesza 1922).

R. sorocarpa Bisch. – very rare, wet loamy soil on railway embankment.

Rec: **PL: 28.**

BRYOPSIDA

Sphagnaceae Dumort

Sphagnum angustifolium (C. E. O. Jensen ex Russow) C. E. O. Jensen – very rare; spring-bogs.

Rec: **PL: 50; 76.**

S. capillifolium (Ehrh.) Hedw. – fairly frequent; peat-bogs, wet places in *Picea abies* forest; mostly in N part of region.

Rec: **CZ: 84** (leg. V. Plášek 9.9.1999, teste J. Váňa, OP).

PL: 34; 77; 80; 82; 89.

Lit: **PL: Mt Kobyła, 720 m** (Szafran 1965).

S. contortum Schultz – recently not found.

Lit: **PL: Mt Skalnity Wierch, 700 m** (Szafran 1965).

S. cuspidatum Ehrh. ex Hoffm. – very rare; peat-bogs; in N part of region.

Rec: **PL: 34; 89.**

S. denticulatum Brid. – rare; in wet drainage ditch in *Picea abies* forest.

Rec: **PL: 108; 116; 117.**

Lit: **PL: Istebna-Zaolzie, 590 m** (Melosik et Stebel 2000).

S. fallax (H. Klinggr.) H. Klinggr. – common; peat bogs, spring-bogs, wet place in *Picea abies* forest, in drainage ditches; mostly in N part.

Rec: **CZ: 71** (leg. V. Plášek 2.4.1997, det. J. Váňa, OP); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **84** (leg. V. Plášek 9.9.1999, teste J. Váňa, OP).

PL: 19; 31; 33; 34; 39; 50; 53; 60; 66; 77; 80; 89; 97; 103; 108; 109.

Lit: **CZ: Plenisko Natural Reservation** (Plášek, ed. 2000b).

PL: Istebna-Prędowiec (Żarnowiec et al. 1986 sub *S. recurvum* P. Beauv.); *valley of the stream Łabajów*, 480 m (Szafran 1965); *Łabajów*, 580 m (Stebel 1999); *Mrózków*, 770-780 m (Stebel 1999); *Forest Inspectorate Istebna, forest compartment 57a*, 550 m (Parusel 2001).

S. fimbriatum Wilson – very rare; on bank of the Olecka stream.

Rec: **PL: 92.**

S. flexuosum Dozy et Molk. – frequent; peat-bogs, spring-bogs; mostly in N part.

Rec: **CZ: 74** (leg. V. Plášek 10.6.1999, det. J. Váňa, OP); **84** (leg. V. Plášek 9.9.1999, teste J. Váňa, OP)
PL: 19; 31; 50; 55; 60; 77; 89; 92; 117.

Hist: **PL: between Łabajów and Mrózków** (leg. I. Korlacka 22. 07. 1985, SOSN).

Lit: **PL: Mrózków, 770-800 m** (Stebel 1999).

S. girgensohnii Russow – common; in *Picea abies* forest, wet wayside escarp, spring-bogs; mostly in N part.

Rec: **CZ: 56** (leg. V. Plášek 3.10.1999, det. J. Váňa, OP; not. J. Kučera 3.10.1999; leg. K. Valdštyňová 2000, OP).

PL: 26; 33; 34; 41; 53; 55; 60; 64; 66; 80; 85; 92; 96; 97; 105; 113; 114; 115; 116; 117.

Hist: **PL: between Łabajów and Mrózków** (leg. I. Korlacka 31. 08. 1985, SOSN).

Lit: **CZ: valley of Rohovec stream** (Plášek, ed. 2000b).

PL: Mt Kiczory, 800 m (Szafran 1965); *Forest Inspectorate Istebna, forest compartments 82b, 57a, 67a, 51d, 17f, 461, 39g, 49g, 550-710 m (Parusel 2001).*

S. inundatum Russow – rare; water heads in *Picea abies* forest; mostly in N part.

Rec: **PL: 33; 34; 41.**

Lit.: **PL: Górne Głębcze, 620-680 m** (Stebel 1999 sub *S. denticulatum*, rev. I. Melosik).

S. palustre L. – common; peat-bogs, spring-bogs, water-heads, wet meadows, drainage ditches, mostly in N part.

Rec: **CZ: 58** (leg. Z. Platošová 22.6.2001, OP); leg. V. Plášek 30.8.2000, OP); **60** (leg. Z. Platošová 14.10.2001, OP); **67** (not. V. Plášek 24.6.1997); **69** (leg. V. Plášek 3.8.2000, OP); **70** (not. V. Plášek

2.4.1997); **71** (leg. V. Plášek 2.4.1997, OP); **74** (leg. V. Plášek 12.5.1998, det. J. Váňa, OP); **78** (leg. V. Plášek 12.5.1998, OP); **83** (leg. V. Plášek 20.8.1999, OP); **84** (leg. V. Plášek 9.9.1999, OP).
PL: 31; 34; 39; 41; 50; 55; 60; 80; 89; 91; 92; 109; 117.

Lit: **CZ:** *valley of Rohovec stream* (Duda 1991).

PL: *Mt Kobyła, 720 m* (Szafran 1965); *Mrózków, 780 m* (Stebel 1999); *valley of the stream Łabajów, 480 m* (Szafran 1965); *Soszów-Zawiść, 740 m* (Szafran 1965).

S. papillosum Lindb. – very rare; peat-bog.

Rec: **PL: 89.**

Lit: **PL:** *Mt Kobyła, 720* (Szafran 1965).

S. russowii Warnst. – fairly frequent; spring-bogs, wet places in *Picea abies* forest, wet wayside escarps.

Rec: **CZ: 71** (leg. V. Plášek 2.4.1997, det. J. Váňa, OP); **77** (leg. V. Plášek 17.8.1999, teste J. Váňa, OP).
PL: 33; 41; 53; 60; 76; 80; 97; 117.

Lit: **PL:** *Mt Kobyła, slope, 720 m* (Szafran 1965); *Mt Skalnity Wierch, slope, 700 m* (Szafran 1965); *Forest Inspectorate Istebna, forest compartment 21, 590 m* (Parusel 2001).

S. squarrosus Crome – common; water-heads, drainage ditches; mostly in central and N part of area.

Rec: **CZ: 32** (not. V. Plášek 15.6.2001); **60** (leg. Z. Platošová 14.10.2001, OP); **67** (leg. V. Plášek 12.5.1998, OP); **70** (not. V. Plášek 2.4.1997); **73** (leg. V. Plášek 20.7.2000, OP); **80** (leg. V. Plášek 20.8.1999, OP); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **84** (leg. V. Plášek 9.9.1999, OP); **92** (leg. V. Plášek 9.9.1999, OP).

PL: 33; 39; 41; 53; 76; 85; 91; 97; 108; 113; 115.

Hist: **PL:** *Łabajów (leg. I. Korlacka 20. 07. 1985, SOSN); between Łabajów and Mrózków, (leg. I. Korlacka 31. 08. 1985, SOSN).*

Lit: **CZ:** *Plenisko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991).

PL: *valley of the stream Łabajów, 480 m* (Szafran 1965); *Skalnity Wierch Mt, 720 m* (Szafran 1965).

S. subnitens Russow et Warnst. – recently not found.

Lit: **PL:** *valley of the stream Łabajów, 480* (Szafran 1965).

S. subsecundum Nees – rare; spring-bogs; mostly in central part.

Rec: **CZ: 84** (leg. V. Plášek 9.9.1999, OP).

PL: 50; 76.

Lit: **PL:** *Mt Kobyła, water-head, 720 m* (Szafran 1965); *Mt Skalnity Wierch, spring-bog, 700 m* (Szafran 1965); *Mt Wielki Stożek, 680 m* (Stebel 1999).

S. teres (Schimp.) Angstr. – rare; spring-bogs; N and central part of area.

Rec: **CZ: 60** (leg. Z. Platošová 30.9.2001 et 13.10.2001, OP).

Rec: **PL: 50; 55; 103.**

S. warnstorffii Russow – rare; spring-bogs; N and central part of area.

Rec: **PL: 50; 109.**

Lit: **PL:** *valley of the stream Łabajów* (Szafran 1965).

Andreaeaceae Dumort

Andreaea rupestris Hedw. – rare; sandstone outcrops.

Rec: **PL: 40; 49; 71; 96.**

Hist: **PL:** *Mt Kiczory, 980 m* (Szafran 1965).

Polytrichaceae Schwägr.

Atrichum angustatum (Brid.) Bruch et Schimp. – very rare; mineral soil.

Rec: **PL: 8.**

A. tenellum (Röhl.) Bruch et Schimp. – rare; open soil, stubble fields, wayside escarps.

Rec: **PL: 26; 86; 88; 99.**

A. undulatum (Hedw.) P. Beauv. – common; in forests (especially *Fagus sylvatica* ones) on slopes, wayside

escarps, rarely on rotten wood sometimes in non-forest habitats – fallow grounds, open soil on meadows, grassy roadsides; throughout the region.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **4** (not. V. Plášek 13.10.2001); **5** (not. V. Plášek 30.9.1999); **6** (leg. V. Plášek 27.8.1997, OP; not. J. Kučera 2.10.1999); **8** (not. V. Plášek 2.10.1999); **11** (leg. V. Plášek 27.8.1997, OP); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **18** (leg. V. Plášek 22.1.1999, OP); **19** (not. J. Kučera 1.10.1999); **20** (leg. V. Plášek 23.4.1999, OP); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, OP); **32** (not. V. Plášek 15.6.2001); **35** (not. V. Plášek 5.9.2000); **36** (leg. V. Plášek 12.10.2001, OP); **41** (leg. V. Plášek 26.8.1997, OP); **44** (not. V. Plášek 14.6.1999); **47** (not. V. Plášek 12.5.2001); **49** (leg. V. Plášek 26.8.1997, OP); **51** (leg. V. Plášek 26.8.1997, OP); **54** (leg. K. Valdštýnová 2000, OP); **56** (leg. K. Valdštýnová 2000, OP; not. J. Kučera 3.10.1999); **57** (not. V. Plášek 15.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **68** (leg. V. Plášek 12.5.1998, OP); **71** (leg. V. Plášek 2.4.1997, OP); **77** (leg. V. Plášek 17.8.1999, OP); **80** (leg. V. Plášek 20.8.1999, OP); **83** (not. J. Kučera 2.10.1999); **84** (leg. V. Plášek 20.8.1999, OP); **88** (not. V. Plášek 9.9.1999); **91** (not. V. Plášek 1.9.2000); **92** (leg. V. Plášek 9.9.1999, OP).

PL: **1; 2; 3; 4; 8; 12; 13; 18; 19; 21; 26; 39; 42; 43; 44; 48; 50; 55; 57; 64; 66; 71; 74; 85; 89; 90; 91; 93; 102; 104; 114; 115.**

Lit: **CZ:** *valley of Horský potok brook* (Plášek, ed. 2000b); *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991; Plášek, ed. 2000b).

PL: *Mt Wielka Czantoria, NE slope, 930 m* (Żarnowiec et al. 1986); *Mt Wielka Czantoria, SE slope, 900 m* (Wilczek 1995: Tab. 16); *Mt Wielka Czantoria, N slope, 990 m* (Wilczek 1995: Tab. 16); *Forest Inspectorate Istebna, forest compartment 461, 710 m* (Parusel 2001).

Oligotrichum hercynicum (Hedw.) Lam. et DC. – very rare; wet mineral soil on path; red tourist route.

Rec: **PL:** **65.**

Pogonatum aloides (Hedw.) P. Beauv. – common; in forests (especially in *Fagus sylvatica* oness) on slopes, wayside escarps, rarely roadside escarps in non-forest habitats; throughout the region.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **6** (leg. V. Plášek 27.8.1997, OP; not. J. Kučera 2.10.1999); **13** (leg. V. Plášek 3.9.1999, OP); **18** (leg. V. Plášek 22.1.1999, OP); **19** (not. V. Plášek 1.10.1999); **24** (leg. V. Plášek 3.9.1999, OP); **26** (leg. V. Plášek 14.5.1999, OP); **35** (not. V. Plášek 5.9.2000); **41** (leg. V. Plášek 26.8.1997, OP); **44** (not. V. Plášek 14.6.1999); **50** (not. V. Plášek 26.8.1997); **54** (leg. K. Valdštýnová 2000, OP); **56** (not. J. Kučera 3.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 30.8.2000, OP); **60** (leg. Z. Platošová 13.10.2001, OP); **74** (leg. V. Plášek 12.5.1998, OP); **80** (leg. V. Plášek 20.8.1999, OP); **82** (not. V. Plášek 9.9.1999); **83** (leg. V. Plášek 20.8.1999 et 2.10.1999, OP; not. J. Kučera 2.10.1999); **84** (leg. V. Plášek 20.8.1999, OP).

PL: **3; 10; 18; 28; 39; 55; 60; 68; 85; 87; 97; 98; 104; 106; 112; 113; 114; 115.**

Hist: **PL:** *valley of the stream Dziechcinka, 720 m* (Szafran 1965); *Mt Kiczory, 900 m* (Szafran, 1965); *Mt Skalny Wierch, 680 m* (Szafran 1965).

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991; Plášek, ed. 2000b).

P. urnigerum (Hedw.) P. Beauv. – frequent; on wayside escarps, paths, bank of ditches, rather in open places.

Rec: **CZ:** **6** (not. J. Kučera et V. Plášek 2.10.1999); **8** (not. V. Plášek 2.10.1999); **35** (not. V. Plášek 5.9.2000); **50** (not. V. Plášek 26.8.1997); **56** (not. J. Kučera et V. Plášek 3.10.1999); **82** (not. V. Plášek 9.9.1999); **83** (not. V. Plášek 2.10.1999).

PL: **10; 16; 17; 18; 19; 20; 46; 54; 55; 114.**

Lit: **CZ:** *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *valley of the stream Łabajów, 880 m* (Szafran 1965); *Mt Stożek, 800 m* (Szafran 1965); *Mt Wielka Czantoria, N slope, 950 m* (Wilczek 1995: Tab. 16).

Polytrichum alpinum Hedw. – very rare; in shaded rock-crevices.

Rec: **PL:** **83; 99.**

P. commune Hedw. – common; peat-bogs, spring-bogs, water-heads, wet places in *Picea abies* forests; mostly in central and N part.

Rec: **CZ:** 6 (leg. V. Plášek 27.8.1997, OP; not. J. Kučera 2.10.1999); 32 (not. V. Plášek 15.6.2001); 43 (leg. V. Plášek 28.4.1997, OP); 51 (leg. V. Plášek 26.8.1997, OP); 56 (not. J. Kučera 3.10.1999); 58 (leg. V. Plášek 30.8.2000, OP); 67 (not. V. Plášek 24.6.1997); 70 (not. V. Plášek 2.4.1997); 71 (leg. V. Plášek 2.4.1997, OP); 73 (leg. V. Plášek 20.7.2000, OP); 77 (leg. V. Plášek 17.8.1999, OP); 83 (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); 84 (leg. V. Plášek 9.9.1999, OP); 92 (leg. V. Plášek 9.9.1999, OP)

PL: 17; 19; 31; 33; 34; 41; 53; 55; 60; 61; 64; 65; 66; 76; 77; 80; 89; 97; 105; 109; 113; 114; 115; 117.

Hist: **PL:** Wisła-Łabajów, 600 (leg. I. Korlacka 22.07.1985, SOSN).

Lit: **CZ:** *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenisko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b)

PL: *valley of the stream Dziechcinka* (Szafran 1965); *Istebna-Prędowniec* (Żarnowiec et al. 1988); *Mt Wielka Czantoria, N slope, 990 m* (Wilczek 1996: Tab. 16); *Forest Inspectorate Istebna, forest compartments 21, 49g, 590-650 m* (Parusel 2001).

P. formosum (Hedw.) – common; on ground in forest communities, rotten wood, sandstones covered by humus soil, sporadically on bark of trees and in water-heads; throughout the territory.

Rec: **CZ:** 1 (not. V. Plášek 12.10.2001); 6 (leg. V. Plášek 27.8.1997, OP; not. J. Kučera 2.10.1999); 8 (not. V. Plášek 2.10.1999); 13 (leg. V. Plášek 3.9.1999, OP); 14 (not. V. Plášek 2.6.2000); 15 (not. V. Plášek 30.9.1999); 18 (leg. V. Plášek 22.1.1999, OP); 19 (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); 22 (not. V. Plášek 1.10.1999); 23 (leg. V. Plášek 14.5.1999, OP); 24 (leg. V. Plášek 3.9.1999, OP); 25 (not. V. Plášek 1.10.1999); 26 (leg. V. Plášek 14.5.1999, OP); 33 (not. V. Plášek 15.6.2001); 35 (not. V. Plášek 5.9.2000); 38 (leg. V. Plášek 21.10.1998, OP); 43 (leg. V. Plášek 28.4.1997, OP); 46 (leg. V. Plášek 26.8.1997, OP); 47 (not. V. Plášek 12.5.2001); 51 (leg. V. Plášek 26.8.1997, OP); 53 (leg. K. Valdštyňová 2000, OP); 54 (leg. K. Valdštyňová 2000, OP); 56 (not. J. Kučera 3.10.1999; leg. K. Valdštyňová 2000, OP); 58 (leg. Z. Platošová 26.5.2001, OP); 59 (leg. Z. Platošová 29.9.2001, OP); 60 (leg. Z. Platošová 30.9.2001, OP); 61 (leg. V. Plášek 30.8.2000, OP); 65 (not. V. Plášek 24.6.1997); 71 (leg. V. Plášek 2.4.1997, OP); 80 (leg. V. Plášek 20.8.1999, OP); 82 (not. V. Plášek 9.9.1999); 83 (leg. V. Plášek 20.8.1999 et 2.10.1999, OP; not. J. Kučera 2.10.1999); 88 (not. V. Plášek 9.9.1999); 91 (not. V. Plášek 1.9.2000).

PL: 3; 8; 9; 14; 17; 18; 19; 21; 26; 28; 31; 39; 40; 41; 42; 43; 44; 48; 55; 61; 64; 66; 70; 74; 77; 80; 81; 82; 83; 85; 98; 104; 105; 106; 107; 108; 113; 114; 115; 116; 117.

Hist: **PL:** Wisła-Łabajów, 600 m (leg. I. Korlacka 31.8.1985, SOSN).

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenisko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991; Plášek, ed. 2000b)

PL: *Istebna-Bukowiec, 475-675 m* (Wilczek 1995: Tab. 22); *Mt Kiczory, 900 m* (Szafran 1965); *Mt Mała Czantoria, 880 m* (Koczwara 1930); *Mt Skalny Wierch, 650 m* (Szafran 1965); *Mt Stożek, 880 m* (Szafran 1965); *Mt Wielka Czantoria, E slope, 500-530 m* (Koczwara 1930); *Mt Wielka Czantoria, the peak* (Koczwara 1930); *Forest Inspectorate Istebna, forest compartments 82b, 57a, 67a, 51d, 17f, 21, 461, 39g, 49g, 550-710 m* (Parusel 2001).

P. juniperinum Brid. – fairly frequent; not found in the Czech part; on dry insolated, grassy escarp, waysides, dry meadows, sporadically on rotten wood in *Picea abies* forest.

Rec: **PL:** 3; 14; 39; 62; 66; 99.

Lit: **PL:** *Mt Wielka Czantoria Mt, SE slope, 950 m* (Wilczek 1995: Tab. 16); *Mt Wielka Czantoria, N slope, 950 m* (Wilczek 1995: Tab. 16).

P. strictum Brid. – very rare; peat bog.

Rec: **PL:** 89.

P. longisetum Sw. ex Brid. – very rare; bank of forest road in the mountain area.

Rec: **CZ:** 51 (leg. V. Plášek 26.8.1997, OP).

P. pallidisetum Funck – very rare; wayside and on ground in *Picea abies* forest.

Rec: **PL:** 64; 70.

P. piliferum Hedw. – rare; dry, insolated grassy escarps.

Rec: **CZ: 43** (leg. V. Plášek 28.4.1997, OP).

PL: 44; 57; 99.

Lit: **PL: Mt Kiczory, 850 m** (Szafran, 1965).

Tetraphidaceae Schimp.

Tetraphis pellucida Hedw. – common; in forests on rotten wood and humus soil, on wet, shaded sandstones, rarely on bark of trees; throughout the area.

Rec: **CZ: 1** (not. V. Plášek 12.10.2001); **6** (not. J. Kučera et V. Plášek 2.10.1999); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **18** (leg. V. Plášek 22.1.1999, OP); **19** (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); **21** (leg. V. Plášek 1.10.1999, OP); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, OP); **30** (leg. V. Plášek 29.5.2001, OP); **35** (not. V. Plášek 5.9.2000); **41** (leg. V. Plášek 26.8.1997, OP); **49** (leg. V. Plášek 26.8.1997, OP); **56** (not. J. Kučera 3.10.1999; leg. K. Valdštyňová 2000, OP); **58** (leg. Z. Platošová 26.5.2001, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **62** (not. V. Plášek 3.8.2000); **69** (leg. V. Plášek 3.8.2000, OP); **71** (leg. V. Plášek 2.4.1997, OP); **72** (leg. V. Plášek 3.8.2000, OP); **78** (leg. V. Plášek 12.5.1998, OP); **80** (leg. V. Plášek 20.8.1999, OP); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **89** (leg. V. Plášek 12.10.2001, OP); **91** (not. V. Plášek 1.9.2000); **PL: 3; 12; 17; 19; 26; 28; 31; 34; 41; 42; 48; 49; 61; 66; 69; 77; 80; 81; 85; 92; 104; 105; 106; 108; 114; 115; 116; 117.**

Lit: **CZ: valley of Hlučová stream** (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b)

PL: Andzielówka, 570 m (Szafran 1965); *Mt Kobyla* (Szafran 1965); *Mt Soszów, 800 m* (Szafran 1965); *Forest Inspectorate Istebna, forest compartment 17f, 580 m* (Parusel 2001).

Funariaceae Schwägr.

Physcomitrium pyriforme (Hedw.) Brid. – very rare; edge of wet meadow, moist soil.

Rec: **CZ: 32** (leg. V. Plášek 29.5.2001, OP).

Funaria hygrometrica Hedw. – common; on ruderal habitats - sites of fires, fallow ground, waysides, sporadically on concrete walls.

Rec: **CZ: 33** (not. V. Plášek 15.6.2001); **37** (not. V. Plášek 12.5.2001); **56** (not. J. Kučera et V. Plášek 3.10.1999); **72** (leg. V. Plášek 3.8.2000, OP).

PL: 2; 16; 26; 30; 34; 43; 46; 51; 61; 80; 89; 99; 106; 113.

Lit: **CZ: valley of Rohovec stream** (Plášek, ed. 2000b).

Ephemeraceae Schimp.

Ephemerum serratum (Hedw.) Hampe – rare; stubble fields.

Rec: **CZ: 2** (leg. V. Plášek 12.10.2001, OP); **39** (leg. V. Plášek 16.12.1997, OP)

PL: 4; 5; 8.

Orthotrichaceae Arnott

Orthotrichum affine Brid. – fairly frequent; on bark of wayside or solitary deciduous trees.

Rec: **CZ: 17** (leg. J. Kučera 1.10.1999, herb. J. Kučera; leg. V. Plášek 18.10.1999, teste M. Vondráček, OP); **19** (leg. I. Novotný 1.10.1999, BRNM); **34** (leg. V. Plášek 29.5.2001, teste J. Kučera, OP).

PL: 14; 35; 117.

Hist: **CZ: valley of Hlučová stream** (leg. J. Jedlička 17.8.1958, det. M. Vondráček, BRNM).

Lit: **CZ: valley of Hlučová stream** (Vondráček 1993; Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Nýdek village* (Plášek, ed. 2000b).

O. anomalum Hedw. – fairly frequent; on concrete walls, bridges, rubbles.

Rec: **CZ: 27** (not. V. Plášek 12.10.2001); **61** (leg. V. Plášek 30.8.2000, OP).

PL: 2; 5; 8; 16; 45; 80; 94.

- O. diaphanum*** Brid. – frequent; on concrete walls and bark of solitary or wayside deciduous trees.
 Rec: **CZ:** **15** (not. V. Plášek 30.9.1999); **17** (leg. V. Plášek 18.10.1999, OP); **34** (leg. V. Plášek 29.5.2001, OP).
PL: **2; 5; 6; 26; 27; 30; 38; 79.**
 Lit: **PL:** *Głębce, near railway station, 580 m* (Stebel 1999).
- O. lyellii*** Hook. et Taylor – rare; bark of wayside deciduous trees (*Acer platanoides*, *Fraxinus excelsior*).
 Rec: **CZ:** **17** (leg. J. Kučera 1.10.1999, herb. J. Kučera; leg. V. Plášek 18.10.1999); **66** (leg. V. Plášek 12.5.1998, OP).
PL: **6; 35.**
 Lit: **CZ:** *Nýdek village* (Plášek, ed. 2000b).
- O. obtusifolium*** Brid. – frequent; on concrete walls and bark of solitary or wayside deciduous trees.
 Rec: **CZ:** **5** (leg. V. Plášek 30.9.1999, OP); **17** (leg. I. Novotný 1.10.1999, BRNM; leg. V. Plášek 18.10.1999, teste M. Vondráček, OP); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **34** (leg. V. Plášek 29.5.2001, teste J. Kučera, OP); **64** (leg. V. Plášek 3.8.2000, OP).
PL: **2; 6; 13; 15; 27; 30; 79.**
 Hist: **PL:** *Głębce, near railway station, 580 m* (Stebel 1999); *Soszów-Zawiszc, 800 m* (Szafran 1965)
 Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok brook* (Plášek, ed. 2000b); *Nýdek village* (Plášek, ed. 2000b)
- O. pallens*** Bruch ex Brid. – rare; on bark of wayside deciduous trees.
 Rec: **CZ:** **5** (leg. V. Plášek 30.9.1999, OP); **17** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera).
PL: **14.**
 Hist: **CZ:** *valley of Hlučová stream* (leg. J. Jedlička 18.8.1958, det. M. Vondráček, BRNM).
 Lit: **CZ:** *valley of Hlučová stream* (Vondráček 1993; Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok brook* (Plášek, ed. 2000b); *Nýdek village* (Plášek, ed. 2000b).
- O. pumilum*** Sw. – frequent; on concrete walls and bark of solitary or wayside deciduous trees.
 Rec: **CZ:** **5** (leg. I. Novotný 30.9.1999, BRNM); **17** (leg. J. Kučera 1.10.1999, herb. J. Kučera; leg. V. Plášek 18.10.1999, teste M. Vondráček, OP); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **34** (leg. V. Plášek 29.5.2001, OP); **36** (leg. V. Plášek 12.10.2001, OP); **64** (leg. V. Plášek 3.8.2000, OP).
PL: **2; 9; 13; 15; 26; 30; 35; 40; 72; 79; 80.**
 Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok brook* (Plášek, ed. 2000b); *Nýdek village* (Plášek, ed. 2000b).
- O. speciosum*** Nees – rare; on bark of wayside deciduous trees.
 Rec: **CZ:** **17** (leg. J. Kučera 1.10.1999, herb. J. Kučera).
PL: **27; 30; 79; 80.**
 Hist: **CZ:** *valley of Hlučová stream* (leg. J. Jedlička 18.8.1958, det. M. Vondráček, BRNM).
 Lit: **CZ:** *Nýdek village* (Plášek, ed. 2000b); *valley of Hlučová stream* (Vondráček 1993).
- O. stramineum*** Hornsch. ex Brid. – rare; bark of solitary trees.
 Rec: **CZ:** **5** (leg. V. Plášek 30.9.1999, OP); **7** (leg. V. Plášek 21.9.2000, OP); **8** (leg. V. Plášek 2.10.1999, OP); **9** (leg. V. Plášek 27.8.1997, teste M. Vondráček, OP).
 Hist: **CZ:** *valley of Hlučová stream* (leg. J. Jedlička 17.8.1958, BRNM).
 Lit: **CZ:** *valley of Horský potok brook* (Plášek, ed. 2000b); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *valley of Hlučová stream* (Vondráček 1993)
PL: *valley of the stream Dziechcinka, 720 m* (Szafran 1965); *Kopydło* (Mickiewicz 1965).
- O. striatum*** Hedw. – recently not found.
 Hist: **CZ:** *valley of Hlučová stream* (leg. J. Jedlička 17.8.1958 sub *O. pumilum*, rev. M. Vondráček, BRNM).
 Lit: **CZ:** *valley of Hlučová stream* (Vondráček 1993).
- Ulota bruchii*** Hornsch. ex Brid. – very rare; bark of solitary trees.
 Rec: **CZ:** **13** (leg. V. Plášek 3.9.1999, OP); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera).
 Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

PL: *Ustroń* (Milde 1869).

U. coarctata (P. Beauv.) Hammar – recently not found.

Lit: **PL:** *Ustroń* (Milde 1852).

U. crispata (Hedw.) Brid. – recently not found.

Hist: **CZ:** valley of Hlučová stream, near loc. Filipka (leg. J. Jedlička 15.8.1958 et 18.8.1958 sub *U. bruchii*, rev. M. Vondráček, BRNM).

Lit: **CZ:** *valley of Hlučová stream* (Vondráček 1994).

PL: *Polana Mraźnica, 850 m* (Bielczyk 1984-86); *Ustroń* (Milde 1852, 1869).

? *Zygodon conoideus* (Dicks.) Hook. et Tayl.

Lit: **PL:** This species was reported only one time from *Ustroń* (Milde 1852), but in next works from Silesia (Milde 1869; Limpricht 1876) this locality was not considered. Reported probably wrongly.

Z. rupestris Schimp. ex Lor. – very rare; bark of solitaire trees.

Rec: **CZ:** **5** (leg. V. Plášek 30.9.1999, OP); **17** (leg. V. Plášek 18.10.1999, det. M. Vondráček, OP)

Lit: **CZ:** *valley of Horský potok brook* (Plášek, ed. 2000b).

Schistostegaceae Schimp.

Schistostega pennata (Hedw.) Web. et Mohr – very rare.

Rec: **PL:** **81**, sandstone crevices, 770-775.

Hist: **PL:** *Kobyła Mt, 800 m* (Szafran 1965); *Ustroń* (Milde 1852).

Bryaceae Schwäegr.

Bryum argenteum Hedw. - common; mostly on ruderal habitats, waysides, wasted lands, stubble fields, rarely on concrete walls; throughout the area.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **4** (not. V. Plášek 13.10.2001); **5** (not. V. Plášek 30.9.1999); **6** (not. J. Kučera 2.10.1999); **7** (leg. V. Plášek 21.9.2000, OP); **11** (leg. V. Plášek 27.8.1997, OP); **13** (leg. V. Plášek 3.9.1999, OP); **15** (not. V. Plášek 30.9.1999); **18** (leg. V. Plášek 22.1.1999, OP); **19** (not. J. Kučera 1.10.1999); **22** (not. V. Plášek 1.10.1999); **24** (leg. V. Plášek 3.9.1999, OP); **26** (leg. V. Plášek 14.5.1999, OP); **27** (leg. V. Plášek 12.10.2001, OP); **34** (leg. V. Plášek 29.5.2001, OP); **36** (leg. V. Plášek 12.10.2001, OP); **56** (leg. J. Kučera 3.10.1999, herb. J. Kučera); **57** (not. V. Plášek 15.10.1999); **60** (leg. Z. Platošová 14.10.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **64** (leg. V. Plášek 3.8.2000, OP); **80** (leg. V. Plášek 20.8.1999, OP); **87** (leg. V. Plášek 20.8.1999, OP); **90** (leg. V. Plášek 12.10.2001, OP); **92** (leg. V. Plášek 9.9.1999, OP).

PL: **4; 5; 8; 13; 16; 23; 24; 26; 28; 38; 39; 44; 52; 54; 63; 79; 80; 84; 95; 117.**

Lit: **CZ:** *valley of Horský potok brook* (Plášek, ed. 2000b); *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

B. bicolor Dicks. - rare; on ruderal habitats and concrete walls.

Rec: **PL:** **4; 26; 63.**

B. caespiticium Hedw. – rare; on ruderal habitats and concrete walls.

Rec: **CZ:** **34** (leg. V. Plášek 29.5.2001, teste J. Kučera, OP); **83** (leg. V. Plášek 2.10.1999, OP)
PL: **17; 87; 92.**

Lit: **CZ:** *Plenísko Natural Reservation* (Plášek, ed. 2000b).

PL: *Mt Kiczory, 989 m* (Szafran 1965); *Mt Stożek, 850 m* (Szafran 1965).

B. capillare Hedw. –rare; dry wayside escarp.

Rec: **CZ:** **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **60** (leg. Z. Platošová 20.10.2001, OP).
PL: **8; 100.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

PL: *Mt Soszów, 800 m* (Szafran 1965).

B. klinggraeffii Schimp. – fairly frequent; stubble field, mineral soil on waysides.

Rec: **CZ:** **56** (leg. J. Kučera 3.10.1999, herb. J. Kučera); **63** (leg. V. Plášek 3.8.2000, OP); **87** (leg. V. Plášek

20.8.1999, OP); **92** (leg. V. Plášek 9.9.1999, OP).

PL: 30; 85.

Lit: **CZ:** near *Stožek settlement* (Plášek 2000a); *valley of Rohovec stream* (Plášek, ed. 2000b).

B. laevifilum Syed. (= *B. subelegans* Kindb.) – common; bark of deciduous trees, walls, rare on soil; throughout the area.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **5** (not. V. Plášek 30.9.1999); **6** (not. J. Kučera 2.10.1999); **8** (leg. V. Plášek 2.10.1999, OP); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **15** (not. V. Plášek 30.9.1999); **16** (leg. V. Plášek 12.10.2001, OP); **17** (leg. V. Plášek 18.10.1999, OP); **18** (leg. V. Plášek 22.1.1999, *c. spor.*, OP); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera; leg. I. Vacínová 1.10.1999, herb. I. Vacínová); **20** (leg. V. Plášek 23.4.1999, OP); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **26** (leg. V. Plášek 14.5.1999, OP); **27** (leg. V. Plášek 12.10.2001, OP); **30** (leg. V. Plášek 29.5.2001, OP); **36** (leg. V. Plášek 12.10.2001, OP); **38** (leg. V. Plášek 21.10.1998, *c. spor.*, OP); **56** (not. J. Kučera et V. Plášek 3.10.1999); **57** (not. V. Plášek 15.10.1999); **58** (leg. Z. Platošová 14.7.2001, OP); **60** (leg. Z. Platošová 20.10.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **63** (leg. V. Plášek 3.8.2000, *c. spor.*, OP); **64** (leg. V. Plášek 3.8.2000, OP); **71** (leg. V. Plášek 2.4.1997, OP); **80** (leg. V. Plášek 20.8.1999, OP); **83** (not. J. Kučera 2.10.1999); **86** (leg. V. Plášek 20.8.1999, OP); **92** (leg. V. Plášek 9.9.1999, *c. spor.*, OP).

PL: 2; 3; 6; 8; 13; 14; 15; 16; 17; 18; 19; 20; 24; 26; 27; 28; 30; 37; 38; 39; 40; 44; 47; 49; 51; 72; 80; 84; 110; 117.

Lit: **CZ:** *valley of Horský potok brook* (Plášek, ed. 2000b); *valley of Hluchová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *Kopydło* (Mickiewicz 1965); *Mt Soszów, 800 m* (Szafran 1965); *Mt Wielka Czantoria, N-E slope, ravine of the stream Suchy, 680 m* (Żarnowiec et al. 1986).

B. pallens Sw. – rare; moist open soil.

Rec: **CZ:** **5** (leg. I. Novotný 30.9.1999, BRNM); **56** (not. J. Kučera 3.10.1999); **84** (leg. V. Plášek 20.8.1999, OP).

PL: 99.

Lit: **CZ:** *valley of Horský potok brook* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

B. pseudotriquetrum (Hedw.) Gaertn., Meyer et Scherb. – frequent; spring-bogs, peat-bogs, banks of streams and drainage ditches.

Rec: **CZ:** **11** (leg. V. Plášek 27.8.1997, OP); **18** (leg. V. Plášek 22.1.1999, OP); **32** (not. V. Plášek 15.6.2001); **54** (leg. K. Valdštyňová 2000, OP); **58** (leg. Z. Platošová 4.8.2001, OP); **60** (leg. Z. Platošová 20.10.2001, OP); **77** (leg. V. Plášek 17.8.1999, OP); **78** (leg. V. Plášek 12.5.1998, OP); **80** (leg. V. Plášek 20.8.1999); **83** (leg. V. Plášek 2.10.1999, OP; not. J. Kučera 2.10.1999); **84** (leg. V. Plášek 9.9.1999, OP); **92** (leg. V. Plášek 9.9.1999, OP).

PL: 31; 39; 41; 52; 89.

Lit: **CZ:** *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Hluchová stream* (Plášek, Kučera, et Duda 2000).

PL: *valley of the stream Łabajów, 600 m* (Szafran 1965); *Mt Skalnity Wierch, 700 m* (Szafran 1965).

B. rubens Mitt. – fairly frequent; stubble fields, open soil in the edge of meadows.

Rec: **CZ:** **4** (not. V. Plášek 13.10.2001); **12** (leg. V. Plášek 27.8.1997, OP); **36** (leg. V. Plášek 12.10.2001, OP); **39** (leg. V. Plášek 16.12.1997, OP); **90** (leg. V. Plášek 12.10.2001, OP).

PL: 8.

Lit: **CZ:** *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek 2000a); *Hrádek nad Olší village* (Plášek 2000a).

B. subapiculatum Hampe – very rare.

Rec: **PL: 8** – stubble field; **57** – wayside.

B. tenuisetum Limpr. – very rare; moist soil near a stream.

Rec: **CZ:** **56** (leg. V. Plášek 3.10.1999, OP; leg. J. Kučera 3.10.1999, herb. J. Kučera).

Lit: **CZ:** *valley of Rohovec stream* (Plášek, ed. 2000b).

B. uliginosum (Brid.) Bruch et Schimp. – very rare; peat bog.

Rec: **CZ: 71** (leg. V. Plášek 2.4.1997).

B. weigelii Spreng. – very rare; water-head in peat-bog.

Rec: **PL: 89**.

Pohlia andalusica (Hoehnel) Broth – very rare; open soil.

Rec: **CZ: 7** (leg. V. Plášek 21.9.2000, OP); **8** (leg. V. Plášek 2.10.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera).

Lit: **CZ: between Nýdek village and Velká Čantoryje National Natural Reservation** (Plášek, ed. 2000b).

P. annotina (Hedw.) Lindb. – very rare; open soil, soil on path.

Rec: **CZ: 7** (leg. V. Plášek 21.9.2000, OP); **8** (leg. V. Plášek 2.10.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera).

PL: 18.

Lit: **CZ: between Nýdek village and Velká Čantoryje National Natural Reservation** (Plášek, ed. 2000b).

P. cruda (Hedw.) Lindb. – rare; sandstone crevices and abandoned quarries.

Rec: **PL: 16; 46; 90; 99**.

P. drummondii (C. Muell.) Andrews – very rare.

Rec: **PL: 55**, wet soil on forest road in *Fagus sylvatica-Picea abies* forest, 610-620 m.

P. lescuriana (Sull.) Grout – very rare; wet sandy soil on bank of wayside drainage ditches.

Rec: **PL: 86; 102**.

P. melanodon (Brid.) J. Shaw – very rare.

Rec: **PL: 86**, wet soil on wayside.

P. nutans (Hedw.) Lindb. – common; on ground in forests, rotten wood, bark of trees, waysides and meadows; throughout the area.

Rec: **CZ: 1** (not. V. Plášek 12.10.2001); **6** (leg. V. Plášek 27.8.1997, OP; not. J. Kučera 2.10.1999); **7** (leg. V. Plášek 21.9.2000, OP); **8** (not. V. Plášek 2.10.1999); **9** (leg. V. Plášek 27.8.1997, OP); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **15** (not. V. Plášek 30.9.1999); **19** (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, OP); **27** (not. V. Plášek 12.10.2001); **29** (leg. V. Plášek 29.5.2001, OP); **33** (not. V. Plášek 15.6.2001); **35** (not. V. Plášek 5.9.2000); **37** (not. V. Plášek 11.4.2000); **38** (leg. V. Plášek 21.10.1998, OP); **44** (not. V. Plášek 14.6.1999); **46** (leg. V. Plášek 26.8.1997, OP); **48** (leg. V. Plášek 26.8.1997, OP); **49** (leg. V. Plášek 26.8.1997, OP); **50** (not. V. Plášek 26.8.1997); **51** (leg. V. Plášek 26.8.1997, OP); **56** (not. J. Kučera 3.10.1999; leg. K. Valdštyňová 2000, OP); **57** (not. V. Plášek 15.10.1999); **60** (leg. Z. Platošová 13.10.2001, OP); **62** (not. V. Plášek 3.8.2000); **65** (not. V. Plášek 24.6.1997); **71** (leg. V. Plášek 2.4.1997, OP); **72** (leg. V. Plášek 3.8.2000, OP); **80** (leg. V. Plášek 20.8.1999, OP); **82** (not. V. Plášek 9.9.1999); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **84** (leg. V. Plášek 20.8.1999, OP); **88** (not. V. Plášek 9.9.1999); **91** (not. V. Plášek 1.9.2000).

PL: 3; 8; 14; 17; 18; 19; 20; 21; 26; 28; 31; 34; 39; 43; 48; 54; 55; 57; 61; 66; 69; 75; 79; 80; 81; 82; 83; 92; 98; 104; 105; 106; 107; 108; 110; 111; 112; 114; 115; 116; 117.

Lit: **CZ: valley of Hlučová stream** (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenisko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991; Plášek, ed. 2000b).

PL: Istebna-Bukowiec, 475-675 m (Wilczek 1995: Tab. 22); *Mt Czantoria, S-E slope slope* (Žmuda et Wiśniewski 1930); *Mt Kobyla, 750 m* (Szafran 1965); *Mt Wielka Czantoria, SE slope, 900-950 m* (Wilczek 1995: Tab. 16); *Mt Wielka Czantoria, N slope, 990 m* (Wilczek 1995: Tab. 16); *Forest Inspectorate Istebna, forest compartments 17f, 461, 580-710 m* (Parusel 2001).

P. prolifera (Kindb. ex Breidl.) Lindb. ex H. W. Arnell – very rare; open soil.

Rec: **CZ: 8** (leg. I. Novotný 2.10.1999, BRNM).

Lit: **CZ: between Nýdek village and Velká Čantoryje National Natural Reservation** (Plášek, ed. 2000b).

P. wahlenbergii (F. Weber et D. Mohr) A. L. Andrews – frequent; wet soil on the forest roads, springs.

Rec: **CZ: 7** (leg. V. Plášek 21.9.2000, OP); **19** (leg. V. Plášek 1.10.1999, OP; not. J. Kučera 1.10.1999); **21**

(leg. V. Plášek 1.10.1999, OP); **56** (leg. V. Plášek 3.10.1999, OP; leg. J. Kučera 3.10.1999, herb. J. Kučera); **59** (leg. Z. Platošová 26.8.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **92** (leg. V. Plášek 9.9.1999, OP).

PL: 12; 13; 24; 26; 28; 86; 106.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Rohovec stream* (Plášek, ed. 2000b).

Rhodobryum roseum (Hedw.) Limpr. – very rare; moist shady place near the stream.

Rec: **CZ: 19** (not. J. Kučera 1.10.1999).

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

PL: *valley of the stream Łabajów, 680 m* (Szafran 1965).

Mniaceae Schwäegr.

Mnium hornum Hedw. – common; soil on streams, shades sandstone, rotten wood, at base of deciduous trees; throughout the area.

Rec: **CZ: 1** (not. V. Plášek 12.10.2001); **14** (not. V. Plášek 2.6.2000); **18** (leg. V. Plášek 22.1.1999, OP); **19** (leg. V. Plášek 23.4.1999, OP); **22** (not. V. Plášek 1.10.1999); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, OP); **29** (leg. V. Plášek 29.5.2001, OP); **30** (leg. V. Plášek 29.5.2001, OP); **31** (leg. V. Plášek 29.5.2001, OP); **35** (not. V. Plášek 5.9.2000); **38** (leg. V. Plášek 21.10.1998, OP); **42** (leg. R. Borski, det. V. Plášek 24.4.1997, OP); **44** (not. V. Plášek 14.6.1999); **56** (not. J. Kučera 3.10.1999; leg. K. Valdštýnová 2000, OP); **58** (leg. Z. Platošová 15.7.2001, OP); **60** (leg. Z. Platošová 13.10.2001, OP); **62** (not. V. Plášek 3.8.2000); **65** (not. V. Plášek 24.6.1997); **68** (leg. V. Plášek 12.5.1998, OP); **70** (not. V. Plášek 2.4.1997); **71** (leg. V. Plášek 2.4.1997, OP); **73** (leg. V. Plášek 20.7.2000, OP); **84** (leg. V. Plášek 9.9.1999, OP); **89** (not. V. Plášek 12.10.2001).

PL: 12; 14; 27; 30; 33; 39; 89; 80; 115.

Hist: **CZ:** *valley of Hlučová stream* (leg. J. Jedlička 18.8.1958, BRNM).

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000; Pospíšil 1981); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *valley of the stream Dziechcinka, 550 m* (Szafran 1965); *Głębce, 620 m* (Szafran 1965).

M. marginatum (Dicks.) P. Beauv. – very rare; shaded sandstone.

Rec: **PL: 12; 14.**

M. spinosum (Voit.) Schwägr. – very rare.

Rec: **PL: 14**, shaded sandstone, 460–465.

Lit: **PL:** *Kopydło* (Mickiewicz 1965).

M. spinulosum B. S. G. – very rare; sandstone outcrops covered by humus soil.

Rec: **CZ: 26** (leg. V. Plášek 14.5.1999, OP).

PL: 81; 110.

Hist: **CZ:** *valley of Hlučová stream* (leg. J. Jedlička 18.8.1958, BRNM).

Lit: **CZ:** *valley of Hlučová stream* (Plášek, Kučera, et Duda 2000; Pospíšil 1981)

M. stellare Hedw. – frequent; shaded sandstone crevices.

Rec: **CZ: 6** (leg. I. Vacínová 2.10.1999, herb. I. Vacínová; not. J. Kučera 2.10.1999); **19** (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP); **60** (leg. Z. Platošová 14.10.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **68** (leg. V. Plášek 12.5.1998, OP)

PL: 15; 16; 46; 49; 81; 90; 99; 110.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000)

Cinclidiaceae Kindb.

Rhizomnium magnifolium (Horik.) T. J. Kop. – very rare; on the ground in peaty *Picea abies* forest *Bazzanio-Piceetum*.

Lit: **PL:** *Forest Inspectorate Istebna, forest compartment 21, 590 m* (Parusel 2001).

R. punctatum (Hedw.) T. J. Kop. – common; on wet soil, shaded sandstone and rotten wood; throughout the area.

Rec: **CZ: 1** (not. V. Plášek 12.10.2001); **5** (not. V. Plášek 30.9.1999); **6** (leg. V. Plášek 27.8.1997, OP; not. J.

Kučera 2.10.1999); **8** (not. V. Plášek 2.10.1999); **11** (leg. V. Plášek 27.8.1997); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **18** (leg. V. Plášek 22.1.1999, OP); **19** (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, OP); **32** (not. V. Plášek 15.6.2001); **33** (not. V. Plášek 15.6.2001); **35** (not. V. Plášek 5.9.2000); **38** (leg. V. Plášek 21.10.1998, OP); **43** (not. V. Plášek 14.6.1999); **46** (leg. V. Plášek 26.8.1997, OP); **47** (not. V. Plášek 12.5.2001); **51** (leg. V. Plášek 26.8.1997, OP); **53** (leg. K. Valdštyňová 2000, OP); **56** (leg. J. Kučera 3.10.1999, herb. J. Kučera); **58** (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **62** (not. V. Plášek 3.8.2000); **65** (not. V. Plášek 24.6.1997); **68** (leg. V. Plášek 12.5.1998, OP); **70** (not. V. Plášek 2.4.1997); **71** (leg. V. Plášek 2.4.1997, OP); **78** (leg. V. Plášek 12.5.1998, OP); **80** (leg. V. Plášek 20.8.1999, OP); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **91** (not. V. Plášek 1.9.2000).

PL: **3; 8; 12; 13; 18; 19; 24; 26; 34; 39; 41; 51; 54; 55; 59; 61; 68; 81; 82; 83; 97; 104; 105; 108; 110; 115; 117.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok brook* (Plášek, ed. 2000b); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).
PL: *Mt Kiczory, 800 m* (Szafran 1965); *Mt Wielka Czantoria, NE slope, 855 m* (Żarnowiec et al. 1987); *Mt Wielka Czantoria, N slope, 980-985 m* (Wilczek 1995: Tab. 16); *Forest Inspectorate Istebna, forest compartments 461, 49g, 650-710 m* (Parusel 2001).

Plagiomniaceae T. J. Kop.

Plagiomnium affine (Blandow) T. J. Kop. – common; on ground in forests (mainly coniferous), waysides, sporadically on rotten wood; throughout the area.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **4** (not. V. Plášek 13.10.2001); **6** (not. J. Kučera 2.10.1999); **12** (leg. V. Plášek 27.8.1997, OP); **15** (not. V. Plášek 30.9.1999); **18** (leg. V. Plášek 22.1.1999, OP); **19** (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); **22** (not. V. Plášek 1.10.1999); **24** (leg. V. Plášek 3.9.1999, OP); **32** (not. V. Plášek 15.6.2001); **33** (not. V. Plášek 15.6.2001); **36** (leg. V. Plášek 12.10.2001, OP); **37** (not. V. Plášek 11.4.2000); **38** (leg. V. Plášek 21.10.1998, OP); **43** (not. V. Plášek 14.6.1999); **70** (not. V. Plášek 2.4.1997); **77** (leg. V. Plášek 17.8.1999, OP); **56** (not. J. Kučera 3.10.1999); **57** (not. V. Plášek 15.10.1999); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001 et 14.10.2001, OP); **67** (not. V. Plášek 24.6.1997); **80** (leg. V. Plášek 20.8.1999, OP); **84** (leg. V. Plášek 9.9.1999, OP); **88** (not. V. Plášek 9.9.1999); **91** (not. V. Plášek 1.9.2000).

PL: **3; 6; 7; 14; 19; 26; 28; 33; 39; 40; 41; 58; 60; 61; 71; 80; 82; 83; 86; 92; 99; 105; 106; 108; 113; 114; 117.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *Mt Kiczory, 980 m* (Szafran 1965); *valley of the stream Łabajów, 640 m* (Szafran 1965); *Forest Inspectorate Istebna, forest compartments 82b, 21, 560-590 m* (Parusel 2001).

P. cuspidatum (Hedw.) T. J. Kop. – rare; mainly on moist soil near the streams.

Rec: **CZ:** **6** (leg. J. Kučera 2.10.1999, herb. J. Kučera); **8** (leg. I. Vacínová 2.10.1999, herb. I. Vacínová); **19** (not. J. Kučera et V. Plášek 1.10.1999).

PL: **3** - at base of *Fagus sylvatica* trunk.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).

PL: *Kopydło* (Mickiewicz 1965).

P. elatum (Bruch et Schimp.) T. J. Kop. – rare; spring-bogs, water-heads.

Rec: **CZ:** **83** (leg. V. Plášek 2.10.1999, OP).

PL: **33; 80; 92; 108.**

Lit: **CZ:** *Plenísko Natural Reservation* (Plášek, ed. 2000b).

PL: *Mt Skalnity Wierch, 700 m* (Szafran 1965); *Mt Stożek, 850 m* (Szafran 1965).

P. ellipticum (Brid.) T. J. Kop. – rare; spring-bogs, drainage ditches.

Rec: **PL:** **3; 103; 117.**

PL: *Istebna-Zaolzie*, 590 m (Melosik et Stebel 2000).

P. rostratum (Schrad.) T. J. Kop. – very rare; stony wall.

Rec: **PL:** 12.

P. undulatum (Hedw.) T. J. Kop. – common; water-heads, wet ground in deciduous forests; throughout the area.

Rec: **CZ:** 1 (not. V. Plášek 12.10.2001); 5 (not. V. Plášek 30.9.1999); 13 (leg. V. Plášek 3.9.1999, OP); 14 (not. V. Plášek 2.6.2000); 18 (leg. V. Plášek 22.1.1999, OP); 19 (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); 20 (leg. V. Plášek 23.4.1999, OP); 22 (not. V. Plášek 1.10.1999); 23 (leg. V. Plášek 14.5.1999, OP); 24 (leg. V. Plášek 3.9.1999, OP); 25 (not. V. Plášek 1.10.1999); 32 (leg. V. Plášek 29.5.2001, OP); 44 (not. V. Plášek 14.6.1999); 55 (leg. K. Valdštýnová 2000, OP); 56 (not. J. Kučera 3.10.1999; leg. K. Valdštýnová 2000, OP); 57 (not. V. Plášek 15.10.1999); 58 (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 30.8.2000, OP); 59 (leg. Z. Platošová 25.8.2001, OP); 60 (leg. Z. Platošová 30.9.2001, OP); 62 (not. V. Plášek 3.8.2000); 65 (not. V. Plášek 24.6.1997); 67 (not. V. Plášek 24.6.1997); 70 (not. V. Plášek 2.4.1997); 77 (leg. V. Plášek 17.8.1999, OP); 83 (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); 84 (leg. V. Plášek 9.9.1999, OP).

PL: 1; 2; 3; 8; 12; 14; 18; 24; 33; 35; 39; 47; 51; 55; 63; 80; 105; 108; 109; 115; 117.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok brook* (Plášek, ed. 2000b); *Plenisko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *Istebna-Zaolzie*, 590 m (Melosik et Stebel 2000); *Forest Inspectorate Istebna, forest compartment 57a*, 550 m (Parusel 2001).

Aulacomniaceae Schimp.

Aulacomnium palustre (Hedw.) Schwägr. – rare; spring-bogs and peat-bogs, sporadically on wet wayside escarp in *Picea abies* forest.

Rec: **CZ:** 77 (not. V. Plášek 17.8.1999).

PL: 50; 75; 89; 103.

Bartramiaceae Schwägr.

Bartramia halleriana Hedw. – very rare; shaded sandstone crevices.

Rec: **CZ:** 61 (leg. V. Plášek 30.8.2000, OP).

PL: 90.

B. ithyphylla Brid. – very rare; sandstone crevices and escarp in abandoned quarry.

Rec: **PL:** 16; 99.

Philonotis caespitosa Jur. – rare; water-heads, wet soil on wayside roads.

Rec: **CZ:** 58 (leg. V. Plášek 30.8.2000, det. B. Buryová, OP); 92 (leg. V. Plášek 9.9.1999, det. B. Buryová, OP).

PL: 7; 26; 33.

P. fontana (Hedw.) Brid. – common; spring-bogs, water-heads.

Rec: **CZ:** 11 (leg. V. Plášek 27.8.1997, teste B. Buryová, OP); 19 (leg. J. Kučera 1.10.1999, herb. J. Kučera); 25 (not. V. Plášek 1.10.1999); 32 (not. V. Plášek 15.6.2001); 37 (not. V. Plášek 12.5.2001); 56 (not. J. Kučera 3.10.1999); 58 (leg. V. Plášek 30.8.2000, det. B. Buryová, OP); 80 (leg. V. Plášek 20.8.1999, OP); 83 (leg. V. Plášek 20.8.1999, det. B. Buryová, OP); 84 (leg. V. Plášek 9.9.1999, teste B. Buryová, OP).

PL: 26; 50; 55; 60; 70; 80; 89; 97; 103.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *Mt Skalnity Wierch*, 700 m (Szafran 1965); *Głębce*, 620 m (Szafran 1965).

Thamnobryaceae W. R. Buck et Vitt.

Thamnobryum alopecurum (Hedw.) Nieuwl. – rare; shaded sandstone.

Rec: **CZ:** 19 (leg. I. Novotný 1.10.1999, BRNM; not. J. Kučera 1.10.1999).

PL: 12; 24; 110.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).
PL: *the stream Dziechcinka, 540-720 m* (Szafran 1965).

Fontinalaceae Schimp.

Fontinalis antipyretica Hedw. – frequent; in the streams.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **18** (leg. V. Plášek 22.1.1999, OP); **19** (not. J. Kučera 1.10.1999); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **56** (not. V. Plášek 3.10.1999); **92** (leg. V. Plášek 9.9.1999, OP).

PL: **1; 2; 8; 51; 52; 63; 89.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *the stream Dziechcinka, 500 m* (Szafran 1965); *Istebna-Prędowniec* (Żarnowiec et al. 1987); *Oblaziec, in the Wisła river, 400 m* (Stebel 1999).

Thuidiaceae Schimp.

Heterocladium heteropterum B. S. G. – frequent; shady sandstone boulders.

Rec: **CZ:** **19** (not. J. Kučera 1.10.1999); **20** (leg. V. Plášek 23.4.1999, teste J. Kučera, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **68** (leg. V. Plášek 12.5.1998, teste J. Kučera, OP); **83** (not. V. Plášek 2.10.1999).

PL: **41; 47; 49; 81; 82; 97; 110.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Plenisko Natural Reservation* (Plášek, ed. 2000b).

PL: *valley of the stream Dziechcinka, 750 m* (Szafran 1965).

Pseudoleskeella nervosa (Brid.) Nyholm – frequent; bark of deciduous trees, shaded sandstone.

Rec: **CZ:** **5** (leg. V. Plášek 30.9.1999, OP; leg. I. Novotný 30.9.1999, BRNM); **8** (leg. V. Plášek 2.10.1999, OP); **10** (leg. V. Plášek 27.8.1997, OP); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **45** (leg. V. Plášek 26.8.1997, OP); **80** (leg. V. Plášek 20.8.1999, OP).

PL: **3; 20; 37; 65; 84.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok brook* (Plášek, ed. 2000b); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).

PL: *Kopydlo* (Mickiewicz 1965).

Thuidium abietinum (Hedw.) B. S. G. – rare; dried places near the roads, dry grassy, wayside escarp.

Rec: **CZ:** **5** (not. V. Plášek 30.9.1999); **13** (leg. V. Plášek 3.9.1999, OP).

PL: **23.**

Lit: **CZ:** *valley of Horský potok brook* (Plášek, ed. 2000b).

T. delicatulum (Hedw.) Mitt. – fairly frequent; grassy escarp, abandoned quarries.

Rec: **CZ:** **21** (not. J. Kučera 1.10.1999).

PL: **12; 16; 26; 39; 46; 55; 63; 75; 91.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, Kučera, et Duda 2000).

T. philibertii Limpr. – frequent; moist soil near the streams.

Rec: **CZ:** **13** (leg. V. Plášek 3.9.1999, OP); **18** (leg. V. Plášek 22.1.1999, teste Z. Hradílek, OP); **19** (leg. V. Plášek 1.10.1999, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); **24** (leg. V. Plášek 3.9.1999, OP); **28** (leg. V. Plášek 21.10.2000, OP); **31** (leg. V. Plášek 29.5.2001, OP); **34** (leg. V. Plášek 29.5.2001, OP); **56** (leg. V. Plášek 3.9.1999, OP); **58** (leg. V. Plášek 30.8.2000, OP); **60** (leg. Z. Platošová 14.10.2001, OP); **63** (leg. V. Plášek 3.8.2000, OP); **64** (leg. V. Plášek 3.8.2000, OP).

PL: **47** – wet grassy escarp.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *Forest Inspectorate Istebna, forest compartment 51d, 590 m* (Parusel 2001).

T. recognitum (Hedw.) Lindb. – very rare; forest soil.

Rec: **CZ:** **13** (leg. V. Plášek 3.9.1999, OP).

T. tamariscinum (Hedw.) B. S. G. – common; water-heads, banks of streams, on ground in forests; throughout the area.

Rec: **CZ:** 14 (not. V. Plášek 2.6.2000); 18 (leg. V. Plášek 22.1.1999, OP); 19 (not. J. Kučera 1.10.1999); 22 (not. V. Plášek 1.10.1999); 42 (leg. R. Borski, det. V. Plášek 28.4.1997, OP); 56 (leg. K. Valdštyňová 2000, OP); 59 (leg. Z. Platošová 25.8.2001, OP); 60 (leg. Z. Platošová 14.10.2001, OP); 71 (leg. V. Plášek 2.4.1997, OP); 73 (leg. V. Plášek 20.7.2000, OP); 78 (leg. V. Plášek 12.5.1998, OP); 80 (leg. V. Plášek 20.8.1999, OP); 83 (leg. V. Plášek 2.10.1999, OP; not. J. Kučera 2.10.1999); 84 (leg. V. Plášek 9.9.1999, OP).
PL: 3; 12; 33; 34; 41; 51; 55; 80; 85; 92; 97; 108; 113; 115.

Lit: **CZ:** valley of Hlučová stream (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); Plenisko Natural Reservation (Plášek, ed. 2000b).
PL: Andzielówka, 650 m (Szafran 1965); Mt Kiczory, 980 m (Szafran 1965); Mt Soszów 800 m (Szafran 1965); Forest Inspectorate Istebna, forest compartment 67a, 590 m (Parusel 2001).

Leskeaceae Schimp.

Lescorea mutabilis (Brid.) Lindb. ex I. Hagen – recently not found.

Lit: **PL:** Ustroń (Milde 1869).

Leskea polycarpa Hedw. – frequent; bark of deciduous trees, mainly *Salix* species.

Rec: **CZ:** 3 (leg. V. Plášek 12.10.2001, OP); 5 (leg. V. Plášek 30.9.1999, OP); 17 (leg. V. Plášek 18.10.1999, OP); 19 (not. J. Kučera 1.10.1999); 36 (leg. V. Plášek 12.10.2001, OP); 45 (leg. V. Plášek 26.8.1997, OP); 56 (leg. V. Plášek 3.9.1999 et 3.10.1999, OP; not. J. Kučera 3.10.1999).
PL: 1; 2; 6; 13; 15; 38.

Lit: **CZ:** valley of Hlučová stream (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); valley of Horský potok brook (Plášek, ed. 2000b); valley of Rohovec stream (Plášek, ed. 2000b).

Pterigynandraceae Schimp.

Pterigynandrum filiforme Hedw. – common; bark of deciduous trees, rarely on shaded sandstones.

Rec: **CZ:** 1 (not. V. Plášek 12.10.2001); 6 (leg. V. Plášek 2.10.1999, OP; not. J. Kučera 2.10.1999); 7 (leg. V. Plášek 21.9.2000, OP); 8 (not. V. Plášek 2.10.1999); 9 (leg. V. Plášek 27.8.1997, OP); 10 (leg. V. Plášek 27.8.1997, OP); 13 (leg. V. Plášek 3.9.1999, OP); 15 (not. V. Plášek 30.9.1999); 16 (leg. V. Plášek 12.10.2001, OP); 17 (leg. J. Kučera 1.10.1999, herb. J. Kučera; leg. V. Plášek 18.10.1999, OP); 19 (leg. V. Plášek 23.4.1999, OP; leg. I. Novotný 1.10.1999, BRNM; not. J. Kučera 1.10.1999); 20 (leg. V. Plášek 23.4.1999, OP); 22 (not. V. Plášek 1.10.1999); 25 (not. V. Plášek 1.10.1999); 26 (leg. V. Plášek 14.5.1999, OP); 48 (leg. V. Plášek 26.8.1997, OP); 58 (leg. Z. Platošová 26.5.2001, OP); 59 (leg. Z. Platošová 25.8.2001, OP); 64 (leg. V. Plášek 3.8.2000, OP); 80 (leg. V. Plášek 20.8.1999, OP); 83 (leg. V. Plášek 20.8.1999 et 2.10.1999, OP; not. J. Kučera 2.10.1999); 88 (not. V. Plášek 9.9.1999); 92 (leg. V. Plášek 9.9.1999, OP).
PL: 2; 3; 6; 9; 11; 12; 14; 15; 18; 20; 24; 37; 51; 54; 72; 73; 78; 79; 84; 89; 93; 117.

Hist: **CZ:** valley of Hlučová stream (leg. J. Jedlička 1950, BRNM).

Lit: **CZ:** valley of Hlučová stream (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000; Pospíšil 1985); Nýdek village (Plášek, ed. 2000b); between Nýdek village and Velká Čantoryje National Natural Reservation (Plášek, ed. 2000b); Velká Čantoryje National Natural Reservation (Plášek, ed. 2000b); Plenisko Natural Reservation (Plášek, ed. 2000b).
PL: Kopydło (Mickiewicz 1965); Ustroń (Milde 1869).

Amblystegiaceae G. Roth

Amblystegium fluviatile (Hedw.) B. S. G. – rare; on boulders in streams and rivers.

Rec: **PL:** 1; 26; 89; 90.

A. riparium (Hedw.) B. S. G. – rare; on boulders in streams and rivers, sporadically at base of wayside *Fraxinus excelsior*.

Rec: **CZ:** 29 (leg. V. Plášek 29.5.2001, OP).
PL: 1; 2; 8.

A. serpens (Hedw.) B. S. G.

var. *serpens* – common; bark of deciduous trees, concrete walls, ruderal places.

Rec: **CZ:** 1 (not. V. Plášek 12.10.2001); 7 (leg. V. Plášek 21.9.2000, OP); 8 (not. V. Plášek 2.10.1999); 13 (leg. V. Plášek 3.9.1999, OP); 15 (not. V. Plášek 30.9.1999); 16 (leg. V. Plášek 12.10.2001, OP); 18 (leg. V. Plášek 22.1.1999, OP); 19 (leg. V. Plášek 23.4.1999, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); 27 (not. V. Plášek 12.10.2001); 34 (leg. V. Plášek 29.5.2001, OP); 36 (leg. V. Plášek 12.10.2001, OP); 37 (not. V. Plášek 11.4.2000); 44 (not. V. Plášek 14.6.1999); 48 (leg. V. Plášek 26.8.1997, OP); 54 (leg. K. Valdštýnová 2000, OP); 55 (leg. K. Valdštýnová 2000, OP); 56 (not. J. Kučera 3.10.1999); 57 (leg. K. Valdštýnová 2000, OP); 58 (leg. Z. Platošová 14.7.2001, OP); 59 (leg. Z. Platošová 26.8.2001, OP); 60 (leg. Z. Platošová 13.10.2001, OP); 61 (leg. V. Plášek 30.8.2000, OP); 63 (leg. V. Plášek 3.8.2000, OP); 64 (leg. V. Plášek 3.8.2000, OP); 66 (leg. V. Plášek 12.5.1998, OP); 75 (not. V. Plášek 12.5.1998); 77 (leg. V. Plášek 17.8.1999, OP); 80 (leg. V. Plášek 20.8.1999, OP); 83 (not. J. Kučera 2.10.1999); 88 (not. V. Plášek 9.9.1999); 89 (leg. V. Plášek 12.10.2001, OP).
PL: 2; 3; 8; 9; 13; 20; 26; 28; 30; 39; 40; 43; 51; 55; 66; 80; 84; 106; 109; 117.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenisko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).
PL: *Kopydło* (Mickiewicz 1965).

var. juratzkanum (Schimp.) Rau. et Herv. – very rare; escarp on the stream Łabajów.

Rec: **PL:** 55.

A. tenax (Hedw.) C. Jenn. – very rare; moist place near the stream.

Rec: **CZ:** 21 (leg. V. Plášek 1.10.1999, OP).

A. varium (Hedw.) Lindb. – very rare; moist soil.

Rec: **CZ:** 31 (leg. V. Plášek 29.5.2001, OP).

Calliergonella cuspidata (Hedw.) Loeske – common; peat bogs, wet meadow, water-heads, drainage ditches.

Rec: **CZ:** 5 (not. V. Plášek 30.9.1999); 11 (leg. V. Plášek 27.8.1997, OP); 14 (not. V. Plášek 2.6.2000); 19 (not. J. Kučera 1.10.1999); 21 (leg. V. Plášek 1.10.1999, OP); 22 (not. V. Plášek 1.10.1999); 24 (leg. V. Plášek 3.9.1999, OP); 32 (leg. V. Plášek 29.5.2001, OP); 34 (leg. V. Plášek 29.5.2001, OP); 56 (leg. V. Plášek 3.9.1999; not. J. Kučera 3.10.1999); 58 (leg. Z. Platošová 4.8.2001, OP; leg. V. Plášek 30.8.2000, OP); 60 (leg. Z. Platošová 30.9.2001, OP); 63 (leg. V. Plášek 3.8.2000, OP); 70 (not. V. Plášek 2.4.1997); 71 (leg. V. Plášek 2.4.1997, OP); 74 (leg. V. Plášek 12.5.1998, OP); 77 (leg. V. Plášek 17.8.1999, OP); 84 (leg. V. Plášek 9.9.1999, OP).
PL: 2; 8; 16; 19; 26; 36; 43; 46; 50; 51; 55; 63; 80; 97; 103; 108; 109; 117.

Lit: **CZ:** *valley of Horský potok brook* (Plášek, ed. 2000b); *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *the stream Łabajów, 600 m* (Szafran 1965).

Calliergon cordifolium (Hedw.) Kindb. – rare; drainage ditches, wet place in young *Betula pendula*-*Pinus sylvestris* forest.

Rec: **CZ:** 92 (leg. V. Plášek 9.9.1999, OP).

PL: 63; 80; 89.

C. stramineum (Brid.) Kindb. – rare; spring-bogs and peat-bogs.

Rec: **PL:** 50; 55; 60; 89.

Lit: **PL:** *Mrózków, 780 m* (Stebel 1999).

Campylium protensum (Brid.) Kindb. – recently not found.

Hist: **CZ:** Jablunkov town (Podpěra 1906, BRNM).

Lit: **CZ:** *Jablunkov town* (Meixnerová 1990).

C. stellatum (Hedw.) Lange et C. E. O. Jensen – fairly frequent; drainage ditches, waysides, spring-bogs.

Rec: **CZ:** 34 (leg. V. Plášek 29.5.2001, OP); 78 (leg. V. Plášek 12.5.1998, det Z. Hradílek, OP).

PL: 4; 7; 55; 63; 99.

Cratoneuron filicinum (Hedw.) Spruce – common; on boulders in streams, water-heads, waysides.

Rec: **CZ:** 11 (leg. V. Plášek 27.8.1997, OP); 19 (not. J. Kučera 1.10.1999); 32 (not. V. Plášek 15.6.2001); 56 (leg. V. Plášek 3.9.1999, OP; not. J. Kučera 3.10.1999); 60 (leg. Z. Platošová 30.9.2001, OP); 61 (leg. V. Plášek 30.8.2000, OP); 63 (leg. V. Plášek 3.8.2000, OP); 64 (leg. V. Plášek 3.8.2000, OP); 67 (not.

V. Plášek 24.6.1997); **83** (not. J. Kučera 2.10.1999); **84** (leg. V. Plášek 9.9.1999, OP); **92** (leg. V. Plášek 9.9.1999, OP).

PL: 3; 4; 15; 26; 46; 55; 59; 80; 115.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

Drepanocladus aduncus (Hedw.) Warnst.

var. ***polycarpus*** (Bland. ex Voit) Roth – very rare; wet place on a bridge on the stream Dziechcinka, 520-540.

Rec: **PL: 39.**

Hygrohypnum duriusculum (De Not.) Jamieson – rare; on boulders in streams.

Rec: **CZ: 18** (leg. V. Plášek 22.1.1999, teste J. Kučera, OP).

PL: 39; 51.

Lit: **CZ:** *valley of Hlučová stream* (Plášek 2000a; Plášek, Kučera, et Duda 2000).

PL: the stream Dziechcinka, 720 m (Szafran 1965).

H. luridum (Hedw.) Jenn. – frequent; on boulders in streams and rivers, sporadically old moist concrete walls.

Rec: **CZ: 19** (leg. V. Plášek 1.10.1999, OP; leg. I. Novotný 1.10.1999, BRNM); **24** (leg. V. Plášek 3.9.1999, teste J. Kučera, OP); **56** (leg. V. Plášek 3.10.1999, OP; leg. K. Valdštyňová 2000, OP); **63** (leg. V. Plášek 3.8.2000, OP).

PL: 2; 12; 14; 15; 39; 51; 73; 89; 90; 92; 99.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Rohovec stream* (Plášek, ed. 2000b).

H. ochraceum (Turner ex. Wilson) Loeske – fairly frequent; on boulders in rivers and streams.

Rec: **CZ: 59** (leg. Z. Platošová 29.9.2001, OP); **92** (leg. V. Plášek 9.9.1999, OP).

PL: 1; 80; 85; 105; 108; 117.

Lit: **PL: Ustroń** (Limpricht 1873).

Palustriella commutata (Hedw.) Ochyra – rare; water-heads.

Rec: **CZ: 56** (not. J. Kučera 3.10.1999; leg. K. Valdštyňová 2000, OP); **71** (leg. V. Plášek 2.4.1997, OP); **84** (leg. V. Plášek 9.9.1999, OP).

PL: 55.

Lit: **CZ:** *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: Łabajów, 650 m (Stebel 1999); *Soszów, 800 m* (Szafran 1965).

Sanionia uncinata (Hedw.) Loeske – common; on bark of trees (mainly deciduous), sandstones, rotten wood, sporadically on soil.

Rec: **CZ: 1** (not. V. Plášek 12.10.2001); **6** (not. J. Kučera 2.10.1999); **8** (not. V. Plášek 2.10.1999); **9** (leg. V. Plášek 27.8.1997, OP); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **16** (leg. V. Plášek 12.10.2001, OP); **18** (leg. V. Plášek 22.1.1999, OP); **19** (leg. V. Plášek 23.4.1999, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); **20** (leg. V. Plášek 23.4.1999, OP); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, OP); **29** (leg. V. Plášek 29.5.2001, OP); **33** (not. V. Plášek 15.6.2001); **35** (not. V. Plášek 5.9.2000); **36** (leg. V. Plášek 12.10.2001, OP); **37** (not. V. Plášek 11.4.2000); **38** (leg. V. Plášek 21.10.1998, OP); **43** (not. V. Plášek 14.6.1999); **46** (leg. V. Plášek 26.8.1997, OP); **50** (not. V. Plášek 26.8.1997); **51** (leg. V. Plášek 26.8.1997, OP); **56** (not. J. Kučera 3.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 14.10.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **62** (not. V. Plášek 3.8.2000); **63** (leg. V. Plášek 3.8.2000, OP); **64** (leg. V. Plášek 3.8.2000, OP); **65** (not. V. Plášek 24.6.1997); **77** (leg. V. Plášek 17.8.1999, OP); **83** (leg. V. Plášek 20.8.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera); **89** (not. V. Plášek 12.10.2001); **92** (leg. V. Plášek 9.9.1999, OP).

PL: 3; 7; 12; 16; 21; 24; 26; 28; 29; 30; 33; 39; 42; 46; 51; 63; 71; 75; 79; 80; 82; 99; 106; 108; 111; 114; 117.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: Pietraszyna, 800 m (Szafran 1965); *Polana Mrażnica, 850 m* (Bielczyk 1984-86); *Mt Stożek, 850 m* (Szafran, 1965); *Mt Wielka Czantoria, NE slope, 855 m* (Żarnowiec et al. 1987).

Warnstorfia exannulata (B. S. G.) Loeske – rare; spring-bogs, drainage ditches.

Rec: **PL: 41; 50; 80.**

Lit: **PL: *Mt Skalnity Wierch*, 700 m (Szafran 1965).**

Warnstorfia fluitans (Hedw.) Loeske – very rare; peat bog.

Rec: **CZ: 71** (leg. V. Plášek 2.4.1997, OP).

Fabroniaceae Schimp.

Anacamptodon splachnoides (Brid.) Brid. – recently not found.

Lit: **CZ: *Velká Čantoryje National Natural Reservation* (Reichardt 1858; Milde 1861 et 1869; Podpěra 1928; Vězda 1960); *Jablunkov* (Limpricht 1895); *Jablunkov-Návsí* (Milde 1958, 1961 et 1869; Limpricht 1895; Podpěra 1928; Vězda 1960).**

PL: *Ustroń* (Milde 1852, Reichardt 1858); *Wielka Czantoria Mt.* (Milde 1857, 1869).

Brachytheciaceae Schimp.

Brachythecium albicans (Hedw.) B. S. G. – common; waysides, dry, grassy escarps, abandoned quarries.

Rec: **CZ: 2** (not. V. Plášek 12.10.2001); **8** (not. J. Kučera 2.10.1999); **13** (leg. V. Plášek 3.9.1999, OP); **19** (not. J. Kučera 1.10.1999); **34** (leg. V. Plášek 29.5.2001, OP); **54** (leg. K. Valdštýnová 2000, OP).
PL: 2; 10; 18; 27; 36; 47; 55; 57; 62; 75; 86; 102.

Lit: **CZ: *valley of Hluchová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).**

B. campestre (Müll. Hal.) B. S. G. – very rare; rotten wood.

Rec: **PL: 59; 80.**

B. glareosum (Spruce) B. S. G. – very rare; sandstone crevices.

Rec: **PL: 99.**

B. oedipodium (Mitt.) A. Jaeger – rare; rotten wood.

Rec: **PL: 81; 98; 117.**

Lit: **CZ: *valley of Rohovec stream* (Duda 1991).**

PL: specimens reported from Mt Wielka Czantoria, NE slope, valley of the stream Suchy Potok, 650 m (Żarnowiec et al. 1987) belong to *B. plumosum*.

B. plumosum (Hedw.) B. S. G. – common; mainly on boulders in or on streams, sporadically on shaded sandstone in forests.

Rec: **CZ: 6** (leg. I. Novotný 2.10.1999, BRNM); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera; leg. I. Vacínová 1.10.1999, herb. I. Vacínová); **26** (leg. V. Plášek 14.5.1999, OP); **56** (leg. V. Plášek 3.10.1999, OP; leg. J. Kučera 3.10.1999, herb. J. Kučera); **58** (leg. Z. Platošová 26.5.2001, OP); **83** (not. J. Kučera et V. Plášek 2.10.1999).

PL: 3; 7; 12; 13; 14; 23; 24; 26; 28; 39; 48; 51; 52; 59; 85; 89; 90; 97.

Lit: **CZ: *valley of Hluchová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).**

PL: *the stream Cehura (Gahura)*, 560 m (Szafran 1965); *the stream Dziechcinka*, 720 m (Szafran 1965); *Soszów-Zawisć*, 800 m (Szafran 1965).

B. populeum (Hedw.) B. S. G. – common; sandstones, rarely on bark of deciduous trees.

Rec: **CZ: 5** (not. V. Plášek 30.9.1999); **6** (leg. I. Novotný 2.10.1999, BRNM; not. J. Kučera et V. Plášek 2.10.1999); **7** (leg. V. Plášek 21.9.2000, OP); **18** (leg. V. Plášek 22.1.1999, OP); **19** (not. J. Kučera 1.10.1999); **20** (leg. V. Plášek 23.4.1999, OP); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **26** (leg. V. Plášek 14.5.1999, OP); **33** (leg. V. Plášek 29.5.2001, OP); **54** (leg. K. Valdštýnová 2000, OP); **56** (not. V. Plášek 3.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP); **59** (leg. Z. Platošová 29.9.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **83** (not. J. Kučera 2.10.1999); **92** (leg. V. Plášek 9.9.1999, OP).

PL: 2; 3; 8; 12; 16; 17; 18; 24; 26; 36; 45; 51; 59; 63; 73; 79; 80; 84; 117.

Lit: **CZ: *valley of Horský potok brook* (Plášek, ed. 2000b); *valley of Hluchová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b);**

Plenísko Natural Reservation (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).
PL: *Kopydlo* (Mickiewicz 1965); *Mt Soszów, 850 m* (Szafran 1965).

B. reflexum (Starke) B. S. G. – common; rotten wood, shaded sandstones, sporadically on humus soil.

Rec: **CZ:** **5** (not. V. Plášek 30.9.1999); **6** (leg. V. Plášek 2.10.1999, OP; leg. I. Novotný 2.10.1999, BRNM; leg. I. Vacínová 2.10.1999, herb. I. Vacínová; not. J. Kučera 2.10.1999); **7** (leg. V. Plášek 21.9.2000, OP); **14** (not. V. Plášek 2.6.2000); **19** (not. V. Plášek 1.10.1999); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **26** (leg. V. Plášek 14.5.1999, OP); **35** (not. V. Plášek 5.9.2000); **38** (leg. V. Plášek 21.10.1998, OP); **43** (not. V. Plášek 14.6.1999); **50** (not. V. Plášek 26.8.1997); **51** (leg. V. Plášek 26.8.1997, OP); **53** (leg. K. Valdštýnová 2000, OP); **55** (leg. K. Valdštýnová 2000, OP); **56** (leg. K. Valdštýnová 2000, OP); **58** (leg. Z. Platošová 4.8.2001, OP; leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **64** (leg. V. Plášek 3.8.2000, OP); **65** (not. V. Plášek 24.6.1997); **82** (not. V. Plášek 9.9.1999); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999).

PL: **3; 7; 11; 12; 26; 33.**

Lit: **CZ:** *valley of Horský potok brook* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Hlučová stream* (Plášek, Kučera, et Duda 2000).

PL: *Kopydlo* (Mickiewicz 1965); *Mt Mala Czantoria, 800 m* (Szafran 1965).

B. rivulare B. S. G. – common; water-heads, on boulders in streams and rivers.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **7** (leg. V. Plášek 21.9.2000, OP); **14** (not. V. Plášek 2.6.2000); **19** (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, OP); **28** (leg. V. Plášek 21.10.2000, OP); **29** (leg. V. Plášek 29.5.2001, OP); **37** (not. V. Plášek 12.5.2001); **47** (not. V. Plášek 12.5.2001); **56** (leg. J. Kučera 3.10.1999, herb. J. Kučera); **58** (leg. Z. Platošová 26.5.2001, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **62** (not. V. Plášek 3.8.2000); **68** (leg. V. Plášek 12.5.1998, OP); **72** (leg. V. Plášek 3.8.2000, OP); **83** (leg. V. Plášek 20.8.1999 et 2.10.1999, OP; not. J. Kučera 2.10.1999); **84** (leg. V. Plášek 20.8.1999 et 9.9.1999, OP); **92** (leg. V. Plášek 9.9.1999, OP).

PL: **2; 3; 7; 12; 15; 18; 25; 30; 39; 41; 59; 80; 89; 92; 97; 117.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *Mt Skalnity Wierch, 700 m* [fo. *umbrosum* Mnkm. (Szafran 1965)].

B. rutabulum (Hedw.) B. S. G. – common; rotten wood, on soil in forest and meadows.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **6** (not. J. Kučera 2.10.1999); **14** (not. V. Plášek 2.6.2000); **15** (not. V. Plášek 30.9.1999); **18** (leg. V. Plášek 22.1.1999, OP); **19** (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, OP); **32** (not. V. Plášek 15.6.2001); **35** (not. V. Plášek 5.9.2000); **37** (not. V. Plášek 11.4.2000); **38** (leg. V. Plášek 21.10.1998, OP); **44** (not. V. Plášek 14.6.1999); **55** (leg. K. Valdštýnová 2000, OP); **56** (leg. V. Plášek 3.10.1999, OP; not. J. Kučera 3.10.1999; leg. K. Valdštýnová 2000, OP); **57** (not. V. Plášek 15.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **62** (not. V. Plášek 3.8.2000); **63** (leg. V. Plášek 3.8.2000, OP); **65** (not. V. Plášek 24.6.1997); **77** (leg. V. Plášek 17.8.1999, OP); **82** (not. V. Plášek 9.9.1999); **87** (leg. V. Plášek 20.8.1999, OP); **88** (not. V. Plášek 9.9.1999); **91** (not. V. Plášek 1.9.2000).

PL: **2; 3; 8; 12; 15; 16; 18; 24; 26; 39; 43; 47; 51; 63; 92.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *Forest Inspectorate Istebna, forest compartment 17f, 580 m* (Parusel 2001).

B. salebrosum (F. Weber et D. Mohr) B. S. G. – common; rotten wood, bark of deciduous trees, concrete walls, on soil.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **5** (leg. V. Plášek 30.9.1999, OP); **6** (not. J. Kučera 2.10.1999); **16** (leg. V. Plášek 12.10.2001, OP); **18** (leg. V. Plášek 22.1.1999, OP); **19** (not. J. Kučera 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **33** (not. V. Plášek 15.6.2001); **36** (leg. V. Plášek 12.10.2001, OP); **43** (not. V. Plášek 14.6.1999); **54** (leg. K. Valdštýnová 2000, OP; not. J. Kučera 3.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 13.10.2001, OP); **62** (not. V. Plášek 3.8.2000); **66** (leg. V. Plášek 12.5.1998, OP); **71** (leg. V. Plášek 2.4.1997, OP); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **89** (not. V. Plášek

- 12.10.2001).
PL: 2; 3; 8; 12; 13; 16; 26; 36; 39; 42; 43; 51; 57; 66; 75; 97; 98; 101; 106; 109; 112; 114.
- Lit: **CZ:** *valley of Horský potok brook* (Plášek, ed. 2000b); *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991; Plášek, ed. 2000b).
PL: *Mt Stožek*, 850 m (Szafran 1965).
- B. starkei** (Brid.) B. S. G. – fairly frequent; rotten wood and humus soil.
- Rec: **CZ:** 6 (leg. J. Kučera 2.10.1999, herb. J. Kučera); 8 (leg. V. Plášek 2.10.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera); 58 (leg. Z. Platošová 15.7.2001, OP).
PL: 3; 21; 80; 81; 97.
- Lit: **CZ:** *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).
PL: *Mt Kiczory*, 850 (Szafran 1965); *Mt Wielka Czantoria, SE slope*, 900 (Wilczek 1995: Tab. 16); *Forest Inspectorate Istebna, forest compartment 461*, 710 m (Parusel 2001).
- B. velutinum** (Hedw.) B. S. G. – common; bark of deciduous trees, rotten wood, on soil in deciduous forest
- Rec: **CZ:** 1 (not. V. Plášek 12.10.2001); 6 (leg. V. Plášek 21.9.2000, OP; not. J. Kučera 2.10.1999); 13 (leg. V. Plášek 3.9.1999, OP); 19 (leg. V. Plášek 23.4.1999, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); 20 (leg. V. Plášek 23.4.1999, OP); 22 (not. V. Plášek 1.10.1999); 23 (leg. V. Plášek 14.5.1999, OP); 26 (leg. V. Plášek 14.5.1999, OP); 30 (leg. V. Plášek 29.5.2001, OP); 33 (not. V. Plášek 15.6.2001); 35 (not. V. Plášek 5.9.2000); 38 (leg. V. Plášek 21.10.1998, OP); 43 (not. V. Plášek 14.6.1999); 54 (leg. K. Valdštyňová 2000, OP; not. J. Kučera 3.10.1999); 58 (leg. Z. Platošová 26.5.2001, OP); 59 (leg. Z. Platošová 26.8.2001, OP); 61 (leg. V. Plášek 30.8.2000, OP); 62 (not. V. Plášek 3.8.2000); 80 (leg. V. Plášek 20.8.1999, OP); 82 (not. V. Plášek 9.9.1999); 83 (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999).
PL: 2; 3; 7; 15; 16; 18; 44; 46; 51; 59; 66; 74; 80; 100; 111.
- Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).
PL: *Mt Soszów*, 800 m (Szafran 1965); *Kopydło* (Mickiewicz 1965); *Mt Mała Czantoria, NW slope*, 830 m (Holeksa et Wilczek 1992); *Mt Wielka Czantoria, N slope*, 900 m (Wilczek 1996: Tab. 16).
- Cirriphyllum piliferum** (Hedw.) Grout – common; meadows, spring-bogs, on ground in *Alnus incana* forest.
- Rec: **CZ:** 11 (leg. V. Plášek 27.8.1997, OP); 13 (leg. V. Plášek 3.9.1999, OP); 34 (leg. V. Plášek 29.5.2001, OP); 56 (not. J. Kučera 3.10.1999); 57 (not. V. Plášek 15.10.1999); 60 (leg. Z. Platošová 14.10.2001, OP); 77 (leg. V. Plášek 17.8.1999, OP).
PL: 2; 8; 26; 34; 39; 40; 84; 86; 97; 106; 108; 117.
- Lit: **CZ:** *valley of Rohovec stream* (Plášek, ed. 2000b).
PL: *valley of the stream Łabajów*, 540 m (Szafran 1965).
- Eurhynchium angustirete** (Broth.) T. J. Kop. – frequent; on ground in wet forests.
- Rec: **CZ:** 6 (not. J. Kučera 2.10.1999); 15 (not. V. Plášek 30.9.1999); 18 (leg. V. Plášek 22.1.1999, OP); 19 (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); 22 (not. V. Plášek 1.10.1999); 25 (not. V. Plášek 1.10.1999); 29 (leg. V. Plášek 29.5.2001, OP); 58 (leg. Z. Platošová 26.5.2001, OP); 59 (leg. Z. Platošová 25.8.2001, OP); 69 (leg. V. Plášek 3.8.2000, OP).
PL: 3; 12; 14; 80; 89; 90; 92.
- Hist: **CZ:** *valley of Hlučová stream* (leg. J. Jedlička 16.8.1958, BRNM).
- Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000; Pospíšil 1980); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).
PL: *Mt Kiczory*, 900 m (Szafran 1965).
- E. hians** (Hedw.) Sande Lac. – common; stubble field, waysides, ruderal places, on ground in deciduous forests.
- Rec: **CZ:** 1 (not. V. Plášek 12.10.2001); 4 (not. V. Plášek 13.10.2001); 6 (leg. V. Plášek 21.9.2000, OP); 15 (not. V. Plášek 30.9.1999); 18 (leg. V. Plášek 22.1.1999, OP); 19 (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); 33 (not. V. Plášek 15.6.2001); 37 (not. V. Plášek 11.4.2000); 38 (leg. V. Plášek 21.10.1998, OP); 39 (not. V. Plášek 4.7.2000); 44 (not. V. Plášek 14.6.1999); 56 (leg. V. Plášek 3.10.1999, OP; leg. J. Kučera 3.10.1999, herb. J. Kučera); 57 (not. V. Plášek 15.10.1999); 58 (leg. Z. Platošová 26.5.2001, OP); 59 (leg. Z. Platošová 25.8.2001, OP); 60 (leg. Z. Platošová 30.9.2001, OP); 90 (leg. V. Plášek 12.10.2001, OP).

- PL: 2; 16; 43; 57; 80; 84.**
Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Rohovec stream* (Plášek, ed. 2000b).
- E. praelongum*** (Hedw.) B. S. G. – rare; shady banks of forest roads.
Rec: **CZ:** **11** (leg. V. Plášek 27.8.1997, OP); **19** (not. J. Kučera 1.10.1999); **31** (leg. V. Plášek 29.5.2001, OP); **59** (leg. Z. Platošová 7.10.2001, OP).
Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).
- E. pulchellum*** (Hedw.) Jenn. – rare; forest soil.
Rec: **CZ:** **56** (leg. J. Kučera 3.10.1999, herb. J. Kučera); **83** (leg. V. Plášek 2.10.1999, OP).
PL: 80.
Lit: **CZ:** *Plenisko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).
- E. schleicheri*** (Hedw. f.) Jur. – rare; moist forest soil.
Rec: **CZ:** **11** (leg. V. Plášek 27.8.1997, OP); **12** (leg. V. Plášek 27.8.1997, OP); **61** (leg. V. Plášek 30.8.2000, OP).
Lit: **PL:** *Mt Stožek, 800 m* (Szafran 1965).
- E. speciosum*** (Brid.) Jur. – frequent; on boulders in streams, water-heads.
Rec: **CZ:** **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **26** (leg. V. Plášek 14.5.1999, teste J. Kučera, OP); **83** (leg. V. Plášek 2.10.1999, OP).
PL: 3; 7; 12; 14; 18; 30; 46; 59; 92; 97.
Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Plenisko Natural Reservation* (Plášek, ed. 2000b).
PL: *the stream Dziechcinka, 720 m* (Szafran 1965).
- Homalothecium lutescens*** (Hedw.) H. Rob. – recently not found.
Lit: **PL:** *Wisła-Uzdrowisko, 428 m* (Szafran 1965).
- H. sericeum*** (Hedw.) B. S. G. – rare; bark of trees, artificial surface.
Rec: **CZ:** **27** (not. V. Plášek 12.10.2001); **86** (leg. V. Plášek 20.8.1999, OP).
PL: 3; 27.
Lit: **PL:** *Kopydło* (Mickiewicz 1965).
- Isothecium alopecuroides*** ((Dubois) Isov. – common; sandstones, bark of deciduous trees.
Rec: **CZ:** **6** (not. J. Kučera 2.10.1999); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **19** (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); **20** (leg. V. Plášek 23.4.1999, OP); **22** (not. V. Plášek 1.10.1999); **24** (leg. V. Plášek 3.9.1999, OP); **25** (not. V. Plášek 1.10.1999); **54** (leg. K. Valdštýnová 2000, OP); **58** (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 14.10.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **86** (leg. V. Plášek 20.8.1999, OP).
PL: 3; 12; 14; 18; 21; 47; 49; 55; 59; 68; 71; 74; 81; 90; 99; 110.
Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenisko Natural Reservation* (Plášek, ed. 2000b).
PL: *Mt Skalnity Wierch, 700 m* (Szafran 1965).
- Rhynchostegium murale*** (Hedw.) B. S. G. – common; old concrete walls, abandoned quarries.
Rec: **CZ:** **16** (leg. V. Plášek 12.10.2001, OP); **19** (leg. I. Novotný 1.10.1999, BRNM); **22** (leg. I. Novotný 1.10.1999 [sub *Homomallium incurvatum* (Brid.) Loeske], rev. V. Plášek, BRNM, OP); **26** (leg. V. Plášek 14.5.1999, OP); **36** (leg. V. Plášek 12.10.2001, OP); **57** (not. V. Plášek 15.10.1999); **61** (leg. V. Plášek 30.8.2000, OP); **64** (leg. V. Plášek 3.8.2000, OP).
PL: 2; 4; 16; 17; 39; 46; 63; 65; 79; 84; 95.
Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).
- R. riparioides*** (Hedw.) Cardot – common; boulders in streams and rivers.
Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **14** (not. V. Plášek 2.6.2000); **15** (not. V. Plášek 30.9.1999); **18** (leg. V. Plášek 22.1.1999, OP); **19** (leg. V. Plášek 23.4.1999, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, OP); **29** (leg. V. Plášek 29.5.2001, OP); **34**

(leg. V. Plášek 29.5.2001, OP); **47** (not. V. Plášek 12.5.2001); **56** (not. J. Kučera 3.10.1999); **57** (not. V. Plášek 15.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **68** (leg. V. Plášek 12.5.1998, OP); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999).

PL: 2; 3; 8; 12; 15; 24; 26; 30; 39; 51; 52; 92; 115.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *the stream Dziechcinka, 720 m* (Szafran 1965); *Mt Wielka Czantoria, valley of the stream Suchy Potok, 515 m* (Żarnowiec et al. 1988).

Scleropodium purum (Hedw.) Limpr. – rare; meadows.

Rec: **CZ:** **4** (leg. V. Plášek 12.10.2001, OP); **5** (not. V. Plášek 30.9.1999); **77** (leg. V. Plášek 17.8.1999, OP)

Lit: *valley of Horský potok brook* (Plášek, ed. 2000b).

Tomentypnum nitens (Hedw.) Loeske – recently not found.

Lit: **PL:** *Łabajów* (leg. I. Korlacka 20. 07. 1985, SOSN, Stebel 1999).

Hylocomiaceae (Broth.) M. Fleisch.

Hylocomium splendens (Hedw.) B. S. G. – fairly frequent; grassy escarp, in coniferous forests.

Rec: **CZ:** **12** (leg. V. Plášek 27.8.1997, OP); **19** (not. J. Kučera 1.10.1999).

PL: 12; 16; 34; 39; 99; 105; 115.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

PL: *Mt Mala Czantoria, 880 m* (Koczwara 1930); *Mt Soszów, 800 m* (Szafran 1965); *Mt Wielka Czantoria, E slope, 500-530 m* (Koczwara 1930); *Mt Wielka Czantoria, the peak* (Koczwara 1930).

H. pyrenaicum (Spruce) Lindb. – recently not found.

Lit: **PL:** *Wisła* (leg. A. Graw 23. 7.1941; Ochyra et al. 1992).

Pleurozium schreberi (Brid.) Mitt. – common; in ground in coniferous forests, grassy escarp, among *Vaccinium myrtillus*, sporadically on rotten wood.

Rec: **CZ:** **6** (not. J. Kučera 2.10.1999); **19** (leg. V. Plášek 23.4.1999, OP); **32** (not. V. Plášek 15.6.2001); **46** (leg. V. Plášek 26.8.1997, OP); **57** (not. V. Plášek 15.10.1999); **58** (leg. V. Plášek 30.8.2000, OP); **60** (leg. Z. Platošová 20.10.2001, OP); **80** (leg. V. Plášek 20.8.1999, OP); **83** (not. J. Kučera 2.10.1999). **PL: 3; 19; 33; 39; 44; 83; 91; 92; 99; 104; 105; 106; 108; 112; 114; 115; 116; 117.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b). **PL:** *Mt Kobyla* (Szafran 1965); *Mt Wielka Czantoria, E slope, 500 m* (Koczwara 1930); *Mt Wierch Skalnity, 750 m* (Szafran 1965); *Forest Inspectorate Istebna, forest compartment 67a, 590 m* (Parusel 2001).

Rhytidiadelphus loreus (Hedw.) Warnst. – rare; on ground in *Picea abies* forests.

Rec: **CZ:** **56** (not. J. Kučera et V. Plášek 3.10.1999).

PL: 33; 82; 115; 116.

Lit: **CZ:** *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *Górne Głębcze, 740 m* (Stebel 1999); *Mt Kobyla, 780 m* (Szafran 1965); *Forest Inspectorate Istebna, forest compartment 51d, 590 m* (Parusel 2001).

R. squarrosus (Hedw.) Warnst. – common; grassy escarp, meadows, waysides, spring-bogs.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **4** (not. V. Plášek 13.10.2001); **5** (not. V. Plášek 30.9.1999); **6** (leg. V. Plášek 27.8.1997, OP; not. J. Kučera 2.10.1999); **12** (leg. V. Plášek 27.8.1997, OP); **13** (leg. V. Plášek 3.9.1999, OP); **15** (not. V. Plášek 30.9.1999); **18** (leg. V. Plášek 22.1.1999, OP); **19** (not. J. Kučera 1.10.1999); **32** (not. V. Plášek 15.6.2001); **38** (leg. V. Plášek 21.10.1998, OP); **44** (not. V. Plášek 14.6.1999); **46** (leg. V. Plášek 26.8.1997, OP); **56** (not. J. Kučera 3.10.1999); **57** (not. V. Plášek 15.10.1999); **58** (leg. V. Plášek 30.8.2000, OP); **60** (leg. Z. Platošová 14.10.2001, OP); **77** (leg. V. Plášek 17.8.1999, OP).

PL: 12; 18; 19; 28; 34; 39; 40; 41; 44; 51; 53; 55; 71; 75; 92; 99; 102; 105; 106; 114.

Lit: **CZ:** *valley of Horský potok brook* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991; Plášek, ed. 2000b); *valley of Hlučová stream* (Plášek, Kučera, et Duda 2000).

PL: *Mt Kiczory*, 850 m (Szafran 1965); *Mt Wielka Czantoria*, N slope, 985 m (Wilczek 1995: Tab. 16); *Mt Wierch Skalnity*, 700 m (Szafran 1965); *Forest Inspectorate Istebna*, forest compartment 82b, 560 m (Parusel 2001).

R. subpinnatus (Lindb.) T. J. Kop. – rare; on ground in *Picea abies* forest, near the stream.

Rec: **CZ:** 60 (leg. Z. Platošová 20.10.2001, OP).

Rec: **PL:** 80; 91; 92; 108.

Lit: **PL:** valley of the stream *Dziehcinka*, 720 m (Szafran 1965); *Mt Kiczory*, 750 m (Szafran 1965); valley of the stream *Łabajów*, 680 m (Szafran 1965); *Andzielówka*, 570 m (Szafran 1965); *Forest Inspectorate Istebna*, forest compartment 57a, 550 m (Parusel 2001).

R. triquetrus (Hedw.) Warnst. – very rare; grassy escarps.

Rec: **PL:** 27; 99.

Lit: **PL:** *Głębcze*, 580 m (Stebel 1999).

Plagiotheciaceae (Broth.) M. Fleisch.

Plagiothecium cavifolium (Brid.) Z. Iwats. – fairly frequent; on ground in deciduous forests.

Rec: **CZ:** 6 (leg. J. Kučera 2.10.1999, herb. J. Kučera); 18 (leg. V. Plášek 22.1.1999, OP).

PL: 12; 16; 18; 26; 46; 47; 55; 99.

Lit: **CZ:** *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).

PL: valley of the stream *Dziehcinka*, 720 m (Szafran 1965); *Mt Skalnity Wierch*, 700 m (Szafran 1965).

P. curvifolium Schlieph. ex Limpr. – common; on ground in coniferous forests, rotten wood, bark of trees, sandstones.

Rec: **CZ:** 1 (not. V. Plášek 12.10.2001); 6 (leg. V. Plášek 27.8.1997, OP; not. J. Kučera 2.10.1999); 14 (not. V. Plášek 2.6.2000); 19 (not. J. Kučera 1.10.1999); 22 (not. V. Plášek 1.10.1999); 25 (not. V. Plášek 1.10.1999); 33 (not. V. Plášek 15.6.2001); 35 (not. V. Plášek 5.9.2000); 43 (not. V. Plášek 14.6.1999); 46 (leg. V. Plášek 26.8.1997, OP); 49 (leg. V. Plášek 26.8.1997, OP); 51 (leg. V. Plášek 26.8.1997, OP); 58 (leg. Z. Platošová 26.5.2001, OP); 59 (leg. Z. Platošová 29.9.2001, OP); 60 (leg. Z. Platošová 30.9.2001, OP); 76 (not. V. Plášek 28.9.1999); 79 (not. V. Plášek 28.9.1999); 80 (leg. V. Plášek 13.10.1999, OP); 83 (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); 86 (leg. V. Plášek 20.8.1999, OP); 88 (not. V. Plášek 9.9.1999)
PL: 3; 12; 18; 19; 21; 26; 32; 39; 43; 55; 60; 61; 64; 66; 68; 78; 81; 82; 83; 85; 92; 105; 106; 109; 113; 114; 116; 117.

Lit: **CZ:** valley of *Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b).
PL: *Istebna-Bukowiec*, 475-675 m (Wilczek 1995: Tab. 22); *Mt Kiczory*, 850 m (Szafran 1965); *Mt Kobyła*, 700 m (Szafran 1965); *Forest Inspectorate Istebna*, forest compartments 57a, 67a, 51d, 17f, 21, 46l, 39g, 49g, 550-710 m (Parusel 2001).

P. denticulatum (Hedw.) B. S. G. – frequent; rotten wood, humus soil, at base of deciduous trees.

Rec: **CZ:** 6 (not. J. Kučera et V. Plášek 2.10.1999); 9 (leg. V. Plášek 27.8.1997, OP); 19 (not. J. Kučera 1.10.1999); 38 (leg. V. Plášek 21.10.1998, OP); 46 (leg. V. Plášek 26.8.1997, OP); 56 (not. J. Kučera 3.10.1999); 58 (leg. Z. Platošová 26.5.2001, OP); 59 (leg. Z. Platošová 29.9.2001, OP); 71 (leg. V. Plášek 2.4.1997, OP); 83 (not. J. Kučera 2.10.1999).

PL: 3; 106.

Lit: **CZ:** valley of *Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); valley of *Rohovec stream* (Plášek, ed. 2000b).

PL: *Kopydło* (Mickiewicz 1965); *Kubalonka*, 790 m (Żarnowiec et al. 1987); *Mt Mała Czantoria*, NW slope, 800-830 m (Holeksa et Wilczek 1992); *Ustroń* (Milde 1852); *Mt Wielka Czantoria*, NE slope, 840 m (Żarnowiec et al. 1988); *Mt Wielka Czantoria*, SE slope, 900-950 m (Wilczek 1995: Tab. 16); *Mt Wielka Czantoria*, N slope, 900-985 m (Wilczek 1995: Tab. 16).

P. laetum B. S. G. – common; bark of deciduous trees, sandstones, on forest escarps, rotten wood.

Rec: **CZ:** 1 (not. V. Plášek 12.10.2001); 6 (leg. J. Kučera 2.10.1999, herb. J. Kučera); 8 (not. V. Plášek 2.10.1999); 13 (leg. V. Plášek 3.9.1999, OP); 14 (not. V. Plášek 2.6.2000); 18 (leg. V. Plášek

22.1.1999, OP); **19** (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **26** (leg. V. Plášek 14.5.1999, OP); **33** (not. V. Plášek 15.6.2001); **35** (not. V. Plášek 5.9.2000); **38** (leg. V. Plášek 21.10.1998, OP); **43** (not. V. Plášek 14.6.1999); **46** (leg. V. Plášek 26.8.1997, OP); **49** (leg. V. Plášek 26.8.1997, OP); **56** (not. J. Kučera 3.10.1999; leg. K. Valdštyňová 2000, OP); **58** (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **62** (not. V. Plášek 3.8.2000); **68** (leg. V. Plášek 12.5.1998, OP); **71** (leg. V. Plášek 2.4.1997, OP); **72** (leg. V. Plášek 3.8.2000, OP); **75** (not. V. Plášek 12.5.1998); **76** (not. V. Plášek 28.9.1999); **77** (leg. V. Plášek 17.8.1999, OP); **78** (leg. V. Plášek 12.5.1998, OP); **79** (not. V. Plášek 28.9.1999); **80** (leg. V. Plášek 20.8.1999, OP); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **88** (not. V. Plášek 9.9.1999); **89** (leg. V. Plášek 12.10.2001, OP); **91** (not. V. Plášek 1.9.2000).

PL: 3; 12; 14; 24; 26; 48; 74.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *Kopydło* (Mickiewicz 1965); *Mt Stożek, 840 m* (Szafran 1965); *Mt Wielka Czantoriat, NE slope, 855* (Żarnowiec et al. 1988); *Mt Wielka Czantoriat, SE slope, 950 m* (Wilczek 1995: Tab. 16); *Mt Wielka Czantoria Mt, N slope, 980-990 m* (Wilczek 1995: Tab. 16).

P. nemorale (Mitt.) A. Jaeger – frequent; sandstones in deciduous forest, at base of deciduous trees.

Rec: **CZ:** **6** (leg. J. Kučera 2.10.1999, herb. J. Kučera); **8** (leg. I. Novotný 2.10.1999, BRNM); **19** (leg. V. Plášek 23.4.1999, OP); **23** (leg. V. Plášek 14.5.1999, OP); **26** (leg. V. Plášek 14.5.1999, OP); **56** (leg. V. Plášek 3.9.1999, OP); **58** (leg. Z. Platošová 26.5.2001, OP).

PL: 3; 12; 18; 80; 103; 110.

Lit: **CZ:** *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *valley of Hlučová stream* (Plášek, Kučera, et Duda 2000).

P. ruthei Limpr. – very rare; bank of water-head in *Picea abies* forest.

Rec: **PL: 92.**

P. succulentum (Wilson) Lindb. – frequent; on ground in forests, sandstone crevices.

Rec: **CZ:** **6** (leg. V. Plášek 2.10.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera); **19** (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); **25** (not. V. Plášek 1.10.1999); **38** (leg. V. Plášek 21.10.1998, OP); **58** (leg. Z. Platošová 26.5.2001, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **62** (not. V. Plášek 3.8.2000).

PL: 3; 71; 90.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).

P. undulatum (Hedw.) B. S. G. – common; on ground in *Picea abies* forests, rarely in the others.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **14** (not. V. Plášek 2.6.2000); **58** (not. Plášek 30.8.2000); **59** (not. Plášek 30.8.2000); **60** (not. Plášek 12.5.1998; leg. Z. Platošová 30.9.2001, OP); **68** (not. Plášek 12.5.1998); **74** (not. Plášek 14.5.1999); **76** (not. Plášek 17.8.1999); **79** (not. V. Plášek 28.9.1999)
PL: 31; 32; 33; 39; 52; 53; 55; 60; 64; 65; 71; 80; 81; 82; 85; 92; 96; 104; 105; 114; 115; 116; 117.

Hist: **CZ:** *valley of Hlučová stream* (leg. J. Jedlička 1958, BRNM); *Písek village* (leg. K. Sutorý 1970, BRNM).

PL: *between Łabajów and Mrózków* (leg. I. Korlacka 31. 08. 1985, SOSN).

Lit: **CZ:** *valley of Hlučová stream* (Pospíšil 1976); *Písek village* (Pospíšil 1976).

PL: *Andzielówka, 570 m* (leg. B. Szafran 20. 09. 1962, Ochyra et al. 1990a); *Gańczarka, 880 m* (Szafran 1965); *Głębce, 650 m* (leg. B. Szafran 08. 09. 1962, Ochyra et al. 1990a); *Istebna-Bukowiec, 475-675 m* (Wilczek 1995: Tab. 22); *Mt Kiczory, 800 m* (Szafran 1965); *Kubalonka, SW slope* (Żarnowiec et al. 1988); *valley of the stream Łabajów, 660 m* (leg. B. Szafran 08. 09. 1962, Ochyra et al. 1990a); *Mt Skalnity Wierch* (leg. B. Szafran 11. 9.1962, Ochyra et al. 1990); *Mt Soszów, 800 m* (Szafran 1965); *Ustroń* (Milde 1869). *Forest Inspectorate Istebna, forest compartments 82b, 67a, 51d, 17f, 21, 46l, 39g, 49g, 550-710 m* (Parusel 2001).

Pseudotaxiphyllum elegans (Brid.) Z. Iwats. – common; on paths, waysides and mineral soil in forests, mainly

beech forests.

Rec: **CZ:** **6** (leg. V. Plášek 27.8.1997, OP); leg. I. Vacínová 2.10.1999, herb. I. Vacínová; not. J. Kučera 2.10.1999); **8** (leg. I. Novotný 2.10.1999, BRNM); **19** (not. J. Kučera 1.10.1999); **56** (not. J. Kučera et V. Plášek 3.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP); leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 29.9.2001, OP); **60** (leg. Z. Platošová 20.10.2001, OP); **62** (not. V. Plášek 3.8.2000); **83** (not. J. Kučera 2.10.1999).

PL: **3; 8; 12; 17; 21; 26; 28; 33; 40; 43; 49; 64; 65; 67; 69; 81; 82; 107.**

Lit: **CZ:** valley of *Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); between *Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko National Reservation* (Plášek, ed. 2000b); valley of *Rohovec stream* (Plášek, ed. 2000b).

PL: *Górne Głębce*, 680 m (Stebel 1999).

Hypnaceae Schimp.

Callicladium haldanianum (Grev.) H. A. Crum – very rare; rotten stump in *Picea abies* forest.

Rec: **PL:** **92.**

Ctenidium molluscum (Hedw.) Mitt. – common; wet sandstones, mainly on streams.

Rec: **CZ:** **6** (not. J. Kučera 2.10.1999); **7** (leg. V. Plášek 21.9.2000, OP); **12** (leg. V. Plášek 27.8.1997, OP); **19** (leg. V. Plášek 23.4.1999, OP); leg. J. Kučera 1.10.1999, herb. J. Kučera); **21** (leg. V. Plášek 1.10.1999, OP); **25** (not. V. Plášek 1.10.1999); **31** (leg. V. Plášek 29.5.2001, OP); **58** (leg. Z. Platošová 26.5.2001, OP); leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **68** (leg. V. Plášek 12.5.1998, OP); **78** (leg. V. Plášek 28.5.1998, OP).

PL: **2; 3; 12; 16; 18; 26; 48; 51; 81; 90; 99; 110; 117.**

Lit: **CZ:** valley of *Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Jablunkov* (Milde 1859, 1861, 1869); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).

PL: *Mt Czantoria*, 480 m (Szafran 1965); *Gahura*, 550 m (leg. B. Szafran 19. 09. 1958, Ochyra et al. 1985b); *Pietraszyna*, 840 m (Szafran 1965); *MT Soszów Wielki*, 800 m (Szafran 1965).

Herzogiella seligeri (Brid.) Z. Iwats. – common; rotten wood, humus soil, rarely on sandstones in forests.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **6** (leg. J. Kučera 2.10.1999, herb. J. Kučera); **7** (leg. V. Plášek 21.9.2000, OP); **8** (not. V. Plášek 2.10.1999); **13** (leg. V. Plášek 3.9.1999, OP); **15** (not. V. Plášek 30.9.1999); **18** (leg. V. Plášek 22.1.1999, OP); **19** (leg. V. Plášek 23.4.1999, OP); not. J. Kučera 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **25** (not. V. Plášek 1.10.1999); **26** (leg. V. Plášek 14.5.1999, OP); **29** (leg. V. Plášek 29.5.2001, OP); **33** (not. V. Plášek 15.6.2001); **35** (not. V. Plášek 5.9.2000); **41** (leg. V. Plášek 26.8.1997, OP); **43** (not. V. Plášek 14.6.1999); **44** (not. V. Plášek 14.6.1999); **49** (leg. V. Plášek 26.8.1997, OP); **54** (leg. K. Valdštýnová 2000, OP); **56** (leg. K. Valdštýnová 2000, OP); not. J. Kučera 3.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP); leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **62** (not. V. Plášek 3.8.2000); **65** (not. V. Plášek 24.6.1997); **68** (leg. V. Plášek 12.5.1998, OP); **77** (leg. V. Plášek 17.8.1999, OP); **79** (not. V. Plášek 28.9.1999); **80** (leg. V. Plášek 20.8.1999, OP); **83** (leg. V. Plášek 20.8.1999, OP); not. J. Kučera 2.10.1999); **88** (not. V. Plášek 9.9.1999); **91** (not. V. Plášek 1.9.2000).

PL: **3; 7; 12; 18; 19; 21; 24; 26; 34; 55; 66; 74; 82; 92; 97; 105; 112; 114.**

Lit: **CZ:** valley of *Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); between *Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko National Reservation* (Plášek, ed. 2000b); valley of *Rohovec stream* (Plášek, ed. 2000b).

PL: *Ustroń* (Milde 1852); *Mt Wielka Czantoria, NE slope*, 840 m (Żarnowiec et al. 1988).

Hypnum andoi A. J. E. Sm. (syn. *H. mammillatum* (Brid.) Loeske) – very rare; bark of trees.

Rec: **CZ:** **6** (leg. J. Kučera 2.10.1999, herb. J. Kučera); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera; leg. I. Vacínová 1.10.1999, herb. I. Vacínová).

Lit: **CZ:** valley of *Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).

H. cupressiforme Hedw.

var. *cupressiforme* – common; bark of trees, sandstones, rotten wood, on ground in forests.

- Rec: **CZ:** 1 (not. V. Plášek 12.10.2001); 4 (not. V. Plášek 13.10.2001); 5 (not. V. Plášek 30.9.1999); 6 (leg. V. Plášek 2.10.1999, OP; not. J. Kučera 2.10.1999); 7 (leg. V. Plášek 21.9.2000, OP); 8 (not. V. Plášek 30.9.1999); 11 (leg. V. Plášek 27.8.1997, OP); 13 (leg. V. Plášek 3.9.1999, OP); 14 (not. V. Plášek 2.6.2000); 15 (not. V. Plášek 30.9.1999); 16 (leg. V. Plášek 12.10.2001, OP); 18 (leg. V. Plášek 22.1.1999, OP); 19 (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); 22 (not. V. Plášek 1.10.1999); 24 (leg. V. Plášek 3.9.1999, OP); 25 (not. V. Plášek 1.10.1999); 26 (leg. V. Plášek 14.5.1999, OP); 27 (not. V. Plášek 12.10.2001); 33 (not. V. Plášek 15.6.2001); 35 (not. V. Plášek 5.9.2000); 36 (leg. V. Plášek 12.10.2001, OP); 38 (leg. V. Plášek 21.10.1998, OP); 43 (not. V. Plášek 14.6.1999); 44 (not. V. Plášek 14.6.1999); 45 (leg. V. Plášek 26.8.1997, OP); 50 (not. V. Plášek 26.8.1997); 52 (leg. V. Plášek 3.9.1999, OP); 55 (leg. K. Valdštýnová 2000, OP); 56 (leg. V. Plášek 3.9.1999, OP; leg. J. Kučera 3.10.1999, herb. J. Kučera; leg. K. Valdštýnová 2000, OP); 57 (not. V. Plášek 15.10.1999); 58 (leg. Z. Platošová 26.5.2001, OP); 59 (leg. Z. Platošová 25.8.2001, OP); 60 (leg. Z. Platošová 30.9.2001, OP); 62 (not. V. Plášek 3.8.2000); 65 (not. V. Plášek 24.6.1997); 70 (not. V. Plášek 2.4.1997); 75 (not. V. Plášek 12.5.1998); 76 (not. V. Plášek 28.9.1999); 79 (not. V. Plášek 28.9.1999); 80 (leg. V. Plášek 20.8.1999, OP); 82 (not. V. Plášek 9.9.1999); 83 (not. J. Kučera 2.10.1999); 85 (not. V. Plášek 9.9.1999); 86 (leg. V. Plášek 20.8.1999, OP); 88 (not. V. Plášek 9.9.1999); 89 (not. V. Plášek 12.10.2001); 91 (not. V. Plášek 1.9.2000); 92 (leg. V. Plášek 9.9.1999, OP).
PL: 2; 3; 13; 14; 16; 19; 24; 26; 39; 40; 44; 45; 46; 47; 51; 55; 64; 68; 73; 74; 82; 83; 91; 100; 105; 114; 117.
- Hist: **PL:** *Istebna-Bukowiec*, 475-675 m (Wilczek 1995: Tab. 22); *Mt Kiczory*, 700 m (Szafran 1965); *Mt Kobyła*, 720 m (Szafran 1965).
- Lit: **CZ:** *Valley of Hluchová stream* (Plášek 2000a; Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok brook* (Plášek, ed. 2000b); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991; Plášek, ed. 2000b).

var. *filiforme* Brid. – very rare; bark of *Acer pseudoplatanus*.

Rec: **PL:** 12.

var. *lacunosum* Brid. – recently not found.

Lit: **PL:** *Kopydlo* (Mickiewicz 1965).

H. jutlandicum Holmen et Warncke – recently not found.

Lit: **PL:** *valley of the stream Dziechcinka*, 660 (Szafran 1965); *Mt Soszów*, 800 (Szafran 1965).

H. lindbergii Mitt. – common; waysides, banks of drainage ditches.

Rec: **CZ:** 19 (leg. I. Novotný 1.10.1999, BRNM; leg. I. Vacínová 1.10.1999, herb. I. Vacínová; not. J. Kučera 1.10.1999); 24 (leg. V. Plášek 3.9.1999, OP); 56 (leg. V. Plášek 3.10.1999, OP; not. J. Kučera 3.10.1999; leg. K. Valdštýnová 2000, OP); 58 (leg. V. Plášek 30.8.2000, OP); 59 (leg. Z. Platošová 26.8.2001, OP); 64 (leg. V. Plášek 3.8.2000, OP); 92 (leg. V. Plášek 9.9.1999, OP).
PL: 7; 16; 18; 19; 24; 27; 29; 39; 43; 47; 51; 63; 73; 97; 99; 100; 102; 105; 117.

Lit: **CZ:** *valley of Hluchová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Rohovec stream* (Plášek, ed. 2000b).

H. pallescens (Hedw.) P. Beauv. – frequent; bark of deciduous trees, rarely on rotten logs.

Rec: **CZ:** 19 (leg. V. Plášek 23.4.1999, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera; leg. I. Vacínová 1.10.1999, herb. I. Vacínová); 20 (leg. V. Plášek 23.4.1999, teste Z. Hradílek, OP); 80 (leg. V. Plášek 20.8.1999, det. J. Kučera, OP); 83 (leg. J. Kučera 2.10.1999, herb. J. Kučera).
PL: 3; 18; 21; 74; 97; 99; 112.

Lit: **CZ:** *Valley of Hluchová stream* (Plášek 2000a; Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Plenísko Natural Reservation* (Plášek, ed. 2000b).

H. pratense W. D. J. Koch ex Spruce – rare; moist meadows, banks of drainage ditches.

Rec: **CZ:** 24 (leg. V. Plášek 3.9.1999, OP); 56 (leg. V. Plášek 3.9.1999, OP); 77 (leg. V. Plášek 17.8.1999, OP); 92 (leg. V. Plášek 9.9.1999, OP).

Orthothecium intricatum (Hartm.) B. S. G. – very rare; shaded sandstone crevices.

Rec: **PL:** 99.

Platygyrium repens (Brid.) B. S. G. – common; mainly on bark of wayside trees, rarely in forest, on trees and rotten woods.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **2** (leg. V. Plášek 12.10.2001, OP); **5** (not. V. Plášek 30.9.1999); **10** (leg. V. Plášek 27.8.1997, OP); **12** (leg. V. Plášek 27.8.1997, OP); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **16** (leg. V. Plášek 12.10.2001, OP); **17** (leg. V. Plášek 18.10.1999, OP); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **22** (not. V. Plášek 1.10.1999); **30** (leg. V. Plášek 29.5.2001, OP); **56** (not. J. Kučera 3.10.1999); **64** (leg. V. Plášek 3.8.2000, OP); **85** (not. V. Plášek 9.9.1999); **89** (leg. V. Plášek 12.10.2001, OP).

PL: **2; 3; 5; 8; 11; 12; 14; 15; 24; 37; 39; 50; 54; 69; 73; 80; 84; 89; 93.**

Hist: **CZ:** valley of Hlučová stream (leg. J. Jedlička 1958, BRNM); Jablunkov town, "Městský les" forest (leg. Boros 1964).

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000; Pospíšil 1985); *valley of Horský potok brook* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b); *Jablunkov town* (Pospíšil 1985).

PL: *valley of the stream Dziehcinka, 720 m* (Szafran 1965); *Kopydło* (Mickiewicz 1965); *Mt Soszów* (Szafran 1965).

Ptilium crista-castrensis (Hedw.) De Not. – very rare.

Rec: **PL:** **3**, rotten log of *Fagus sylvatica* in *Fagus sylvatica* forest, 810-830.

PL: *Mt Kiczory, 800 m* (Szafran 1965).

Pylaisia polyantha (Hedw.) Schimp. – common; mainly on bark of wayside trees.

Rec: **CZ:** **2** (leg. V. Plášek 12.10.2001, OP); **5** (not. V. Plášek 30.9.1999); **12** (leg. V. Plášek 27.8.1997, OP); **13** (leg. V. Plášek 3.9.1999, OP); **17** (leg. V. Plášek 18.10.1999, OP); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **26** (leg. V. Plášek 14.5.1999, OP); **36** (leg. V. Plášek 12.10.2001, OP); **56** (leg. V. Plášek 3.10.1999, OP; not. J. Kučera 3.10.1999); **64** (leg. V. Plášek 3.8.2000, OP); **66** (leg. V. Plášek 12.5.1998, OP); **85** (not. V. Plášek 9.9.1999); **89** (leg. V. Plášek 12.10.2001, OP); **92** (leg. V. Plášek 9.9.1999, OP).

PL: **2; 4; 5; 9; 13; 15; 30; 72; 79; 80; 117.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok brook* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

Taxiphyllum wissgrillii (Garov.) Wijk et Margad. – very rare; shaded sandstones.

Rec: **PL:** **12; 49.**

Climaciaceae Kindb.

Climacium dendroides (Hedw.) F. Weber et D. Mohr – common; wet meadow, spring-bogs, waysides, on ground in wet forests.

Rec: **CZ:** **5** (not. V. Plášek 30.9.1999); **12** (leg. V. Plášek 27.8.1997, OP); **13** (leg. V. Plášek 3.9.1999, OP); **18** (leg. V. Plášek 22.1.1999, OP); **19** (not. J. Kučera 1.10.1999); **22** (not. V. Plášek 1.10.1999); **25** (not. V. Plášek 1.10.1999); **32** (not. V. Plášek 15.6.2001); **33** (leg. V. Plášek 29.5.2001, OP); **36** (leg. V. Plášek 12.10.2001, OP); **37** (not. V. Plášek 12.5.2001); **57** (not. V. Plášek 15.10.1999); **58** (leg. V. Plášek 30.8.2000, OP); **70** (not. V. Plášek 2.4.1997); **72** (leg. V. Plášek 3.8.2000, OP); **77** (leg. V. Plášek 17.8.1999, OP).

PL: **8; 12; 26; 31; 47; 50; 51; 60; 63; 80; 89; 91; 103; 117.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok brook* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991).

PL: *Mt Skalnity Wierch, 700 m* (Szafran 1965); *Mt Soszów, 800 m* (Szafran 1965).

Neckeraceae Schimp.

Homalia trichomanoides (Hedw.) Brid. – fairly frequent; bark of deciduous trees and sandstone in forests.

Rec: **CZ:** **1** (leg. V. Plášek 12.10.2001, OP); **2** (leg. V. Plášek 12.10.2001, OP); **19** (leg. V. Plášek 23.4.1999, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera; leg. I. Novotný 1.10.1999, BRNM; leg. I. Vacínová 1.10.1999, herb. I. Vacínová); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **26** (leg. V. Plášek 14.5.1999, OP); **58** (leg. V. Plášek 30.8.2000, OP).

PL: **3; 14; 18.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

PL: *Kopydło* (Mickiewicz 1965).

Neckera besseri (Lobarz.) Jur. – recently not found.

Lit: **CZ:** *Jablunkov town, loc. Městský les* (Kulesza 1922).

N. complanata (Hedw.) Huebener – rare; sandstone outcrops.

Rec: **CZ:** **13** (leg. V. Plášek 3.9.1999, OP).

PL: **49; 71; 81; 110.**

Hist: **CZ:** valley of Hlučová stream (leg. J. Jedlička 1958, BRNM).

Lit: **CZ:** *valley of Hlučová stream* (Kafková 1988).

PL: *Kopydło* (Mickiewicz 1965); *valley of the stream Łabajów, 700 m* (Szafran 1965); *Ustroń* (Milde 1869).

N. crispa Hedw. – rare; sandstone outcrops.

Rec: **PL:** **71; 81; 110.**

Lit: **PL:** *Kobyła Mt, 724* (Szafran 1965); *Ustroń* (Milde 1852; leg. R. Uechtritz 1857, Limpricht 1873); *Wisła, 650* (leg. A. Graw 17.7.1940, Ochyra *et al.* 1988a).

N. pennata Hedw. – recently not found.

Lit: **PL:** *Ustroń* (Milde 1852, 1869).

Anomodontaceae Kindb.

Anomodon attenuatus (Hedw.) Huebener – fairly frequent; bark of deciduous trees and sandstones.

Rec: **CZ:** **16** (leg. V. Plášek 12.10.2001, OP); **18** (leg. V. Plášek 22.1.1999, OP); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **20** (leg. V. Plášek 23.4.1999, OP); **56** (leg. V. Plášek 3.9.1999, OP).
PL: **3; 14.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

A. rugelii (Müll. Hal.) Keissl. – very rare.

Rec: **PL:** **99**, shaded sandstone, 835-845.

Hist: **PL:** *Kopydło* (Mickiewicz 1965).

A. viticulosus (Hedw.) Hook. et Taylor – rare.

Rec: **CZ:** **19** (not. J. Kučera 1.10.1999) – shady sandstone rocks.

PL: **3**, bark of old *Acer pseudoplatanus*, 850-860; **8**, concrete wall on a little stream W of Wiślańska street, 390-400.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

Hedwigiaceae Schimp.

Hedwigia ciliata (Hedw.) P. Beauv. – very rare; sandstone in *Fagus sylvatica* forest.

Rec: **PL:** **26; 47.**

Leucodontaceae Schimp.

Leucodon sciuroides (Hedw.) Schwägr. – frequent; bark of deciduous trees; sporadically on old walls.

Rec: **CZ:** **5** (not. V. Plášek 30.9.1999); **10** (leg. V. Plášek 27.8.1997, OP); **13** (leg. V. Plášek 3.9.1999, OP); **17** (leg. V. Plášek 18.10.1999, OP); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **85** (not. V. Plášek 9.9.1999); **86** (leg. V. Plášek 9.9.1999, OP).
PL: **3; 14; 35; 37; 45; 54; 79.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok brook* (Plášek, ed. 2000b).

PL: *Mt Soszów, 800 m* (Szafran 1965).

Hookeriaceae Schimp.

Hookeria lucens (Hedw.) Sm. – very rare; edge of the peat bog.

Rec: **CZ:** **71** (leg. V. Plášek 2.4.1997, OP).

Lit: **CZ:** "Droserová enkláva" peat bog in valley of Kotelnice stream (Plášek 2000a).
PL: Andzielówka, 570 m (Szafran 1965).

Buxbaumiaceae Schwägr.

Buxbaumia viridis (Moug. ex Lam. et DC.) Brid. ex Moug. et Nestl. – rare.

Rec: **CZ:** 13 (leg. V. Plášek 3.9.1999, OP); 18 (leg. V. Plášek 22.1.1999, OP); 26 (leg. V. Plášek 14.5.1999, OP); 52 (leg. V. Plášek 3.9.1999, OP).

Lit: **CZ:** valley of Hlučová stream (Plášek 2000a; Plášek, Kučera, et Duda 2000; Plášek et Vacinová 2001); valley of Střelma stream (Plášek 2000a, 2001a).
PL: Ustroń (Milde 1852).

Diphysciaceae M. Fleisch.

Diphyscium foliosum (Hedw.) D. Mohr – rare; escarps in forests.

Rec: **CZ:** 6 (leg. V. Plášek 2.10.1999, OP; leg. I. Vacinová 2.10.1999, herb. I. Vacinová; not. J. Kučera 2.10.1999); 19 (leg. V. Plášek 23.4.1999, teste J. Kučera, OP; leg. I. Vacinová 1.10.1999, herb. I. Vacinová); 31 (leg. V. Plášek 29.5.2001, OP); 58 (leg. V. Plášek 30.8.2000, OP); 59 (leg. Z. Platošová 25.8.2001, OP).

Lit: **CZ:** valley of Hlučová stream (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); Velká Čantoryje National Natural Reservation (Plášek, ed. 2000b).
PL: Koczy Zamek Mt (Gierłowczanka) 810 m, leg. B. Szafran 06. 09. 1957 (Ochyra et al. 1990b); valley of the stream Łabajów, 700 m (Szafran 1965); Pochodzita Mt, 840 m (Szafran 1965).

Encalyptaceae Schimp.

Encalypta streptocarpa Hedw. – common; old concrete walls, shaded sandstone crevices, abandoned quarries.

Rec: **CZ:** 16 (leg. V. Plášek 12.10.2001, OP); 18 (leg. V. Plášek 22.1.1999, OP); 19 (not. J. Kučera et V. Plášek 1.10.1999); 26 (leg. V. Plášek 14.5.1999, OP); 27 (not. V. Plášek 12.10.2001); 34 (leg. V. Plášek 29.5.2001, OP); 61 (leg. V. Plášek 30.8.2000, OP).
PL: 23; 26; 27; 29; 39; 45; 46; 51; 63; 79; 80; 91; 99; 117.

Lit: **CZ:** valley of Hlučová stream (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

Pottiaceae Schimp.

Syntrichia latifolia (Bruch ex Hartm.) Huebener – very rare; old concrete stairs.

Rec: **PL:** 2.

S. papillosa (Wilson) Jur. – rare; bark of trees, concrete wall.

Rec: **CZ:** 5 (leg. I. Novotný 30.9.1999, BRNM); 17 (leg. V. Plášek 18.10.1999, OP); 19 (leg. J. Kučera 1.10.1999, herb. J. Kučera).

PL: 2.

Lit: **CZ:** valley of Hlučová stream (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); valley of Horský potok brook (Plášek, ed. 2000b).

S. ruralis (Hedw.) F. Weber et D. Mohr – fairly frequent; old concrete walls, bark of deciduous trees.

Rec: **PL:** 3; 30; 45; 63; 79; 80; 84; 94.

Lit: **PL:** slope on the stream Kopydło (Mickiewicz 1965); Mt Soszów, 700 m (Szafran 1965).

S. virescens (De Not.) Ochyra – rare; bark of deciduous trees, old concrete walls.

Rec: **CZ:** 17 (leg. J. Kučera 1.10.1999, herb. J. Kučera; leg. V. Plášek 18.10.1999, OP).
PL: 2; 84; 93.

T. muralis Hedw. – common; concrete walls, abandoned quarries, sporadically sandstones.

Rec: **CZ:** 5 (leg. V. Plášek 30.9.1999, OP); 13 (leg. V. Plášek 3.9.1999, OP); 15 (not. V. Plášek 30.9.1999); 19 (not. J. Kučera 1.10.1999); 27 (leg. V. Plášek 12.10.2001, OP); 34 (leg. V. Plášek 29.5.2001, OP); 36 (leg. V. Plášek 12.10.2001, OP); 61 (leg. V. Plášek 30.8.2000, OP); 63 (leg. V. Plášek 3.8.2000, OP); 64 (leg. V. Plášek 3.8.2000, OP); 80 (leg. V. Plášek 20.8.1999, OP).
PL: 2; 8; 13; 23; 26; 30; 40; 44; 46; 47; 63; 81.

Lit: **CZ:** valley of Hlučová stream (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); valley of Horský

potok brook (Plášek, ed. 2000b).

T. truncata (Hedw.) Mitt. – frequent; stubble fields.

Rec: **CZ:** **2** (leg. V. Plášek 12.10.2001, OP); **3** (leg. V. Plášek 12.10.2001, OP); **4** (not. V. Plášek 13.10.2001); **15** (not. V. Plášek 30.9.1999); **32** (not. V. Plášek 15.6.2001); **36** (leg. V. Plášek 12.10.2001, OP); **37** (not. V. Plášek 11.4.2000); **39** (leg. V. Plášek 16.12.1997, OP); **87** (leg. V. Plášek 20.8.1999, OP); **90** (leg. V. Plášek 12.10.2001, OP).
PL: **5; 8.**

T. subulata Hedw. – very rare; concrete wall, sandstone crevices in abandoned quarry.

Rec: **PL:** **2; 16.**

Weissia controversa Hedw. – very rare; open soil, wayside escarp.

Rec: **CZ:** **31** (leg. V. Plášek 29.5.2001, teste J. Kučera, OP).
PL: **87.**

W. squarrosa (Nees et Hornsch.) Müll. Hal. – very rare; open soil.

Rec: **CZ:** **31** (leg. V. Plášek 29.5.2001, det. J. Kučera, OP).

Barbula convoluta Hedw. – frequent; ruderal places, waysides

Rec: **CZ:** **4** (not. V. Plášek 13.10.2001); **8** (not. J. Kučera 2.10.1999); **19** (not. J. Kučera 1.10.1999); **24** (leg. V. Plášek 3.9.1999, OP); **28** (leg. V. Plášek 21.10.2000, OP); **34** (leg. V. Plášek 29.5.2001, det. J. Kučera, OP); **37** (not. V. Plášek 11.4.2000); **56** (leg. V. Plášek 3.10.1999, OP; leg. J. Kučera 3.10.1999, herb. J. Kučera); **83** (leg. V. Plášek 2.10.1999, OP); **84** (leg. V. Plášek 9.9.1999, teste J. Kučera, OP).
PL: **16; 30; 46; 52; 85; 115.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenisko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

B. unguiculata Hedw. – common; ruderal places, waysides.

Rec: **CZ:** **4** (leg. V. Plášek 12.10.2001, OP); **5** (leg. V. Plášek 30.9.1999, OP); **7** (leg. V. Plášek 21.9.2000, OP); **8** (leg. V. Plášek 2.10.1999, OP); **14** (not. V. Plášek 2.6.2000); **19** (not. J. Kučera 1.10.1999); **34** (leg. V. Plášek 29.5.2001, teste J. Kučera, OP); **37** (not. V. Plášek 11.4.2000); **39** (not. V. Plášek 4.7.2000); **56** (leg. V. Plášek 3.9.1999, OP; not. J. Kučera 3.10.1999); **58** (leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 29.9.2001, OP); **60** (leg. Z. Platošová 20.10.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **63** (leg. V. Plášek 3.8.2000, OP); **64** (leg. V. Plášek 3.8.2000, OP); **90** (leg. V. Plášek 12.10.2001, OP).
PL: **2; 4; 5; 13; 16; 25; 26; 27; 30; 36; 51; 85; 92; 99; 115.**

Lit: **CZ:** *valley of Horský potok brook* (Plášek, ed. 2000b); *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

Bryoerythrophyllum ferruginascens (Stirt.) Giac. – very rare; on stony soil in abandoned quarry and old concrete wall.

Rec: **PL:** **46; 47.**

B. recurvirostrum (Hedw.) P. C. Chen – common; concrete walls, sandstone crevices.

Rec: **CZ:** **16** (leg. V. Plášek 12.10.2001, OP); **19** (not. J. Kučera 1.10.1999); **21** (leg. V. Plášek 1.10.1999, OP); **26** (leg. V. Plášek 14.5.1999, OP); **27** (not. V. Plášek 12.10.2001); **61** (leg. V. Plášek 30.8.2000, OP).
PL: **2; 12; 16; 23; 24; 26; 27; 29; 39; 46; 51; 63; 73; 80; 90; 91; 99; 117.**

Lit: *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

Didymodon fallax (Hedw.) R. H. Zander – rare; wet loamy soil in abandoned quarries.

Rec: **PL:** **4; 16; 26; 46; 99.**

D. rigidulus Hedw. – frequent; concrete walls, rarely on sandstones.

Rec: **CZ:** **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **27** (leg. V. Plášek 12.10.2001, OP); **56** (leg. J. Kučera 3.10.1999, herb. J. Kučera); **60** (leg. Z. Platošová 20.10.2001, OP).
PL: **2; 16; 17; 23; 26; 30; 39; 51; 63; 99.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Rohovec stream* (Plášek, ed. 2000b).

D. spadiceus (Mitt.) Limpr.– very rare; artificial surface on a bank of a stream.

Rec: **CZ:** **15** (leg. I. Novotný 30.9.1999, det. J. Kučera, BRNM).

Tortella inclinata (Hedw. f.) Limpr. – very rare.

Rec: **PL:** **63**, stony soil in young *Betula pendula* and *Pinus sylvestris* forest, abundantly, 415-420.

T. tortuosa (Hedw.) Limpr. – frequent; sandstones, rarely on old concrete walls.

Rec: **CZ:** **6** (leg. V. Plášek 2.10.1999, OP; not. J. Kučera 2.10.1999); **13** (leg. V. Plášek 3.9.1999, OP); **18** (leg. V. Plášek 22.1.1999, OP); **20** (leg. V. Plášek 23.4.1999, OP); **75** (not. V. Plášek 12.5.1998)
PL: **3; 12; 26; 49; 90; 99**.

Lit: **CZ:** *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *valley of Hlučová stream* (Plášek, Kučera, et Duda 2000).

PL: *valley of the stream Gahura on Mt Wielka Czantoria, 700 m* (Szafran 1965); *Mt Kobyła, 720 m* (Szafran 1965); *Pietraszyna, 845 m* (Szafran 1965); *valley of the stream Poniwiec, 660 m* (Szafran 1965).

Trichostomum tenuirostre (Hook. et Taylor) Lindb. – frequent; shaded sandstone crevices.

Rec: **CZ:** **6** (leg. J. Kučera 2.10.1999, herb. J. Kučera; leg. I. Novotný 2.10.1999, BRNM); **7** (leg. V. Plášek 21.9.2000, OP); **19** (leg. V. Plášek 1.10.1999, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera; leg. I. Vacínová 1.10.1999, herb. I. Vacínová); **21** (leg. V. Plášek 1.10.1999, OP); **28** (leg. V. Plášek 21.10.2000, OP); **56** (leg. V. Plášek 3.10.1999, OP); **60** (leg. Z. Platošová 14.10.2001, OP).
PL: **12; 14; 26; 81; 99**.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).

Dicranaceae Schimp.

Campylopus flexuosus (Hedw.) Brid. – recently not found.

Lit: **PL:** *valley of the stream Łabajów, 650* (Szafran 1965).

C. subulatus Schimp. – very rare; stony wayside.

Rec: **PL:** **22**.

Dicranodontium denudatum (Brid.) E. Britton ex Williams – common; rotten wood, humus soil, sporadically on sandstones

Rec: **CZ:** **6** (not. J. Kučera 2.10.1999); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **22** (not. V. Plášek 1.10.1999); **24** (leg. V. Plášek 3.9.1999, OP); **56** (not. J. Kučera 3.10.1999); **58** (leg. Z. Platošová 14.7.2001, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 13.10.2001, OP); **69** (leg. V. Plášek 3.8.2000, OP); **70** (not. V. Plášek 2.4.1997); **79** (not. V. Plášek 28.9.1999); **83** (leg. V. Plášek 20.8.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera).
PL: **3; 32; 33; 34; 39; 42; 55; 61; 64; 71; 77; 80; 81; 82; 83; 85; 92; 97; 110; 112; 113; 114**.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *Mt Stożek, 800 m* (Szafran 1965); *Ustroń* (Milde 1852, 1869); *Forest Inspectorate Istebna, forest compartments 82b, 67a, 21, 49g, 560-650 m* (Parusel 2001).

Dicranoweisia cirrata (Hedw.) Lindb. ex Milde – fairly frequent; bark of wayside deciduous trees.

Rec: **CZ:** **5** (leg. I. Novotný 30.9.1999, BRNM); **16** (leg. V. Plášek 12.10.2001, OP); **40** (leg. V. Plášek 21.5.1998, OP); **89** (leg. V. Plášek 12.10.2001, OP).
PL: **2; 8; 24; 30; 72; 94**.

Lit: **CZ:** *Hrádek nad Olší village* (Plášek 2000a, 2001b; Stebel et Plášek 2001); *Nýdek village* (Plášek, ed. 2000b; Plášek 2001b; Stebel et Plášek 2001).

PL: *Ustroń-Polana* (Stebel et Plášek 2001); *Wisła-Uzdrowisko* (Stebel et Plášek 2001); *Wisła-Dziehcinka* (Stebel et Plášek 2001).

D. crispula (Hedw.) Lindb. ex Milde – rare; sandstones.

Rec: **CZ:** 6 (leg. V. Plášek 2.10.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera); 7 (leg. V. Plášek 21.9.2000, OP).
PL: 16; 99.

Lit: **CZ:** *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).
PL: *Mt Kobyła, 800 m* (Szafran 1965); *Ustroń* (Milde 1869).

Dicranum bonjeanii De Not. – very rare; spring-bog.

Rec: **PL:** 103.

D. fuscescens Turner – very rare; shaded sandstone.

Rec: **PL:** 83.

Lit: **PL:** *Ustroń* (Milde 1869).

D. montanum Hedw. – common; bark of trees (more frequently on deciduous trees), rotten wood, shaded sandstones, sporadically on humus soil.

Rec: **CZ:** 1 (not. V. Plášek 12.10.2001); 6 (leg. V. Plášek 27.8.1997, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera); 8 (not. V. Plášek 2.10.1999); 10 (leg. V. Plášek 27.8.1997, OP); 12 (leg. V. Plášek 27.8.1997, OP); 13 (leg. V. Plášek 3.9.1999, OP); 14 (not. V. Plášek 2.6.2000); 15 (not. V. Plášek 30.9.1999); 16 (leg. V. Plášek 12.10.2001, OP); 18 (leg. V. Plášek 22.1.1999, OP); 19 (leg. V. Plášek 23.4.1999, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); 22 (not. V. Plášek 1.10.1999); 23 (leg. V. Plášek 14.5.1999, OP); 24 (leg. V. Plášek 3.9.1999, OP); 26 (leg. V. Plášek 14.5.1999, OP); 35 (not. V. Plášek 5.9.2000); 43 (not. V. Plášek 14.6.1999); 46 (leg. V. Plášek 26.8.1997, OP); 47 (leg. V. Plášek 29.5.2001, OP); 49 (leg. V. Plášek 26.8.1997, OP); 56 (not. J. Kučera 3.10.1999); 57 (not. V. Plášek 15.10.1999); 58 (leg. Z. Platošová 26.5.2001, OP); 59 (leg. Z. Platošová 25.8.2001, OP); 60 (leg. Z. Platošová 30.9.2001, OP); 61 (leg. V. Plášek 30.8.2000, OP); 62 (not. V. Plášek 3.8.2000); 65 (not. V. Plášek 24.6.1997); 70 (not. V. Plášek 2.4.1997); 76 (not. V. Plášek 28.9.1999); 79 (not. V. Plášek 28.9.1999); 80 (leg. V. Plášek 20.8.1999, OP); 82 (not. V. Plášek 9.9.1999); 83 (leg. V. Plášek 20.8.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera); 85 (not. V. Plášek 9.9.1999); 86 (leg. V. Plášek 20.8.1999, OP); 89 (leg. V. Plášek 12.10.2001, OP); 91 (not. V. Plášek 1.9.2000).
PL: 3; 11; 12; 18; 19; 20; 21; 26; 33; 34; 39; 43; 44; 48; 54; 55; 61; 69; 73; 74; 77; 78; 80; 82; 83; 84; 86; 97; 104; 105; 106; 107; 108; 110; 112; 114; 117.

Hist: **CZ:** valley of Hlučová stream (leg. J. Jedlička 19.8.1950 et 22.8.1958, BRNM); valley of Rohovec stream, in Rohovec forest (leg. J. Duda 12.8.1991, BRNM).

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000; Franklová 1999); *between Nýdeck village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenisko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991; Plášek, ed. 2000b; Franklová 1999).
PL: *Mt Kiczory, 980 m* (Szafran 1965); *Kopydło* (Mickiewicz 1965); *Ustroń* (Milde 1869); *Mt Wielka Czantoria, NE slope, 855 m* (Żarnowiec et al. 1986).

! *D. muehlenbeckii* B., S. et G. - The species was published from the loc. No. 21 in the Czech part of the studied area (Plášek, Kučera et Duda 2000). However, it was a mistake - the specimen was redetermined as *Dicranum montanum* in 2001.

D. scoparium Hedw. – common; on ground in coniferous forests, rotten wood, bark of trees, shaded sandstones.

Rec: **CZ:** 1 (not. V. Plášek 12.10.2001); 6 (not. J. Kučera 2.10.1999); 14 (not. V. Plášek 2.6.2000); 18 (leg. V. Plášek 22.1.1999, OP); 19 (not. J. Kučera 1.10.1999); 24 (leg. V. Plášek 3.9.1999, OP); 26 (leg. V. Plášek 14.5.1999, OP); 35 (not. V. Plášek 5.9.2000); 49 (leg. V. Plášek 26.8.1997, OP); 51 (leg. V. Plášek 26.8.1997, OP); 56 (not. J. Kučera 3.10.1999); 58 (leg. Z. Platošová 22.6.2001, OP; leg. V. Plášek 30.8.2000, OP); 59 (leg. Z. Platošová 25.8.2001, OP); 60 (leg. Z. Platošová 13.10.2001, OP); 62 (not. V. Plášek 3.8.2000); 65 (not. V. Plášek 24.6.1997); 71 (leg. V. Plášek 2.4.1997, OP); 75 (not. V. Plášek 12.5.1998); 76 (not. V. Plášek 28.9.1999); 77 (leg. V. Plášek 17.8.1999, OP); 79 (not. V. Plášek 28.9.1999); 83 (not. J. Kučera et V. Plášek 2.10.1999); 86 (leg. V. Plášek 20.8.1999, OP); 89 (leg. V. Plášek 12.10.2001, OP); 91 (not. V. Plášek 1.9.2000).
PL: 3; 17; 19; 21; 26; 31; 33; 34; 39; 43; 48; 55; 61; 64; 69; 77; 82; 83; 92; 97; 99; 104; 105; 106; 107; 113; 114; 115; 117.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenisko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *Istebna-Bukowiec*, 475-675 m (Wilczek 1995: Tab. 22); *Mt Kiczory*, 980 m (Szafran 1965); *Kubalonka, SW slope*, 780 m (Żarnowiec et al. 1986); *Forest Inspectorate Istebna, forest compartments 82b, 57a, 67a, 51d, 17f, 21, 39g, 550-620 m* (Parusel 2001).

D. tauricum Sap. – very rare; bark of wayside *Fraxinus excelsior*.

Rec: **PL: 93.**

Paraleucobryum longifolium (Hedw.) Loeske – frequent; shaded sandstones, rarely on bark of trees (mostly *Fagus sylvatica*).

Rec: **CZ: 6** (not. J. Kučera et V. Plášek 2.10.1999); **18** (leg. V. Plášek 22.1.1999, OP); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **53** (leg. K. Valdštyňová 2000, OP); **80** (leg. V. Plášek 20.8.1999, OP); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **86** (leg. V. Plášek 20.8.1999, OP).
PL: 3; 14; 21; 26; 34; 40; 81; 82.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b)
PL: *Kopydło* (Mickiewicz 1965); *Mt Skalnity Wierch*, 750 m (Szafran 1965); *Stecówka*, 650 m (Szafran 1965).

Dicranella cerviculata (Hedw.) Schimp. – very rare; wet sandy soil on banks of drainage ditches.

Rec: **PL: 31; 102.**

D. heteromalla (Hedw.) Schimp. – common; on ground in forests (mostly *Fagus sylvatica* forests), rotten wood, wayside escarp, rarely bark of trees and shaded boulders and sandstones.

Rec: **CZ: 1** (not. V. Plášek 12.10.2001); **4** (not. V. Plášek 13.10.2001); **5** (not. V. Plášek 30.9.1999); **6** (leg. V. Plášek 27.8.1997, OP); **8** (leg. J. Kučera 2.10.1999, herb. J. Kučera); **11** (leg. V. Plášek 27.8.1997, OP); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **15** (not. V. Plášek 30.9.1999); **18** (leg. V. Plášek 22.1.1999, OP); **19** (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); **22** (not. V. Plášek 1.10.1999); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **26** (leg. V. Plášek 14.5.1999, OP); **28** (leg. V. Plášek 21.10.2000, OP); **29** (leg. V. Plášek 29.5.2001, OP); **35** (not. V. Plášek 5.9.2000); **37** (not. V. Plášek 11.4.2000); **38** (leg. V. Plášek 21.10.1998, OP); **41** (leg. V. Plášek 26.8.1997, OP); **43** (not. V. Plášek 14.6.1999); **49** (leg. V. Plášek 26.8.1997, OP); **50** (not. V. Plášek 26.8.1997); **51** (leg. V. Plášek 26.8.1997, OP); **53** (leg. K. Valdštyňová 2000, OP); **54** (leg. K. Valdštyňová 2000, OP); **56** (leg. K. Valdštyňová 2000, OP; not. J. Kučera 3.10.1999); **57** (not. V. Plášek 15.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 7.10.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **62** (not. V. Plášek 3.8.2000); **65** (not. V. Plášek 24.6.1997); **68** (leg. V. Plášek 12.5.1998, OP); **69** (leg. V. Plášek 3.8.2000, OP); **71** (leg. V. Plášek 2.4.1997, OP); **74** (leg. V. Plášek 12.5.1998, OP); **76** (not. V. Plášek 28.9.1999); **77** (leg. V. Plášek 17.8.1999, OP); **78** (leg. V. Plášek 12.5.1998, OP); **79** (not. V. Plášek 28.9.1999); **80** (leg. V. Plášek 20.8.1999, OP); **82** (not. V. Plášek 9.9.1999); **83** (leg. V. Plášek 20.8.1999, OP; not. J. Kučera 2.10.1999); **84** (leg. V. Plášek 20.8.1999, OP); **89** (not. V. Plášek 12.10.2001); **91** (not. V. Plášek 1.9.2000).

PL: 2; 3; 4; 8; 11; 12; 13; 16; 17; 19; 20; 21; 26; 31; 39; 41; 42; 43; 48; 49; 52; 55; 61; 64; 68; 69; 74; 77; 82; 83; 85; 88; 92; 93; 104; 106; 107; 114; 117.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok brook* (Plášek, ed. 2000b); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenísko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991; Plášek, ed. 2000b).

PL: *Mt Wielka Czantoria, NE slope*, 845 m (Żarnowiec et al. 1986); *Mt Kiczory*, 900 m (Szafran 1965); *Mt Soszów*, 800 m (Szafran 1965); *Forest Inspectorate Istebna, forest compartments 461, 39g, 49g, 620-710 m* (Parusel 2001).

D. palustris (Dicks.) Crundw. et E. F. Warb. – very rare; water-head.

Rec: **PL: 41.**

Lit: **PL:** *Mt Skalnity Wierch*, 700 m (Szafran 1965);

D. rufescens (Dicks.) Schimp. – fairly frequent; wet wayside escarp, banks of ditches and streams.

Rec: **CZ: 42** (leg. V. Plášek 26.8.1997, OP) **56** (leg. V. Plášek 3.9.1999, OP; leg. J. Kučera 3.10.1999, herb. J. Kučera).

PL: 55; 85; 86; 117.

Lit: **CZ:** *valley of Rohovec stream* (Plášek, ed. 2000b).

D. schreberiana (Hedw.) Dix. – very rare; open soil, stubble field.

Rec: **CZ:** **12** (leg. V. Plášek 27.8.1997, det. Z. Hradílek, OP).

PL: **8.**

Lit: **CZ:** *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek 2000a).

D. staphylina H. Whitehouse – rare; arable fields, stubble field, open soil.

Rec: **CZ:** **5** (leg. V. Plášek 30.9.1999, OP); **36** (leg. V. Plášek 12.10.2001, OP); **87** (leg. V. Plášek 20.8.1999, OP).

PL: **4.**

Lit: **CZ:** *valley of Horský potok brook* (Plášek, ed. 2000b).

Pseudephemerum nitidum (Hedw.) Loeske – very rare; open soil, stubble field.

Rec: **CZ:** **2** (leg. V. Plášek 12.10.2001, OP).

PL: **5.**

Cynodontium polycarpon (Hedw.) Schimp. – fairly frequent; shaded sandstone outcrops.

Rec: **CZ:** **6** (leg. J. Kučera 2.10.1999, herb. J. Kučera); **19** (leg. V. Plášek 23.4.1999, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); **58** (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 30.8.2000, OP) **61** (leg. V. Plášek 30.8.2000, OP).

PL: **49; 71; 81.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).

PL: *Mt Mała Czantoria, 800 m* (Szafran 1965); *Mt Kiczory, 980 m* (Szafran 1965); *Mt Kobyla, 750 m* (Szafran 1965).

C. strumiferum (Hedw.) Lindb. – recently not found.

Lit: **PL:** *Mt Kobyla, 700 m* (Szafran 1965); *Mt Mała Czantoria, 800 m* (Szafran 1965).

Dichodontium pellucidum (Hedw.) Schimp. – common; boulders in streams and rivers, water-heads.

Rec: **CZ:** **1** (not. V. Plášek 12.10.2001); **5** (not. V. Plášek 30.9.1999); **13** (leg. V. Plášek 3.9.1999, OP); **14** (not. V. Plášek 2.6.2000); **18** (leg. V. Plášek 22.1.1999, det. J. Kučera, OP); **19** (leg. V. Plášek 23.4.1999, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera; leg. I. Vacínová 1.10.1999, herb. I. Vacínová); **20** (leg. V. Plášek 23.4.1999, OP); **22** (not. V. Plášek 1.10.1999); **24** (leg. V. Plášek 3.9.1999, OP); **26** (leg. V. Plášek 14.5.1999, OP); **28** (leg. V. Plášek 21.10.2000, OP); **29** (leg. V. Plášek 29.5.2001, OP); **56** (leg. V. Plášek 3.10.1999, OP; leg. J. Kučera 3.10.1999, herb. J. Kučera); **58** (leg. Z. Platošová 26.5.2001, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 13.10.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **62** (not. V. Plášek 3.8.2000); **63** (leg. V. Plášek 3.8.2000, OP); **64** (leg. V. Plášek 3.8.2000, OP); **83** (not. J. Kučera 2.10.1999); **92** (leg. V. Plášek 9.9.1999, OP).

PL: **3; 7; 12; 14; 30; 33; 39; 51; 52; 80; 85; 89; 90; 92; 99.**

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok brook* (Plášek, ed. 2000b); *Plenisko Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

PL: *Mt Wielka Czantoria, N-E slope, valley of the stream Suchy Potok, 640 m* (Żarnowiec et al. 1986); *the stream Dziechcinka, 720 m* (Szafran 1965); *Istebna-Prędołwiec* (Żarnowiec et al. 1986); *the stream Łabajów, 880 m* (Szafran 1965).

Leucobryaceae Schimp.

Leucobryum glaucum (Hedw.) Angstr. – common; on ground in forests (mainly coniferous).

Rec: **CZ:** **53** (leg. K. Valdštyňová 2000, OP); **56** (leg. K. Valdštyňová 2000, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **70** (not. V. Plášek 2.4.1997); **71** (leg. V. Plášek 2.4.1997, OP); **76** (not. V. Plášek 28.9.1999); **80** (leg. V. Plášek 20.8.1999, OP).

PL: **33; 39; 42; 43; 48; 49; 55; 77; 82; 85; 97; 105; 106; 109; 114; 115.**

Lit: **CZ:** *valley of Rohovec stream* (Duda 1991).

PL: *Istebna-Bukowiec, 475-675 m* (Wilczek 1995: Tab. 22); *Kubalonka, SW slope* (Żarnowiec et al. 1986); *Mt Młoda Góra, 950 m* (Szafran 1965).

Ditrichaceae Limpr.

Ditrichum cylindricum (Hedw.) Grout – very rare, open soil

Rec: **CZ: 92** (leg. V. Plášek 9.9.1999, OP).

D. heteromallum (Hedw.) E. Britton – fairly frequent; wayside escarps.

Rec: **CZ: 6** (leg. V. Plášek 27.8.1997 et 2.10.1999, teste I. Novotný, OP); **13** (leg. V. Plášek 3.9.1999, OP); **24** (leg. V. Plášek 3.9.1999, teste I. Novotný, OP); **55** (leg. K. Valdštýnová 2000, OP); **58** (leg. V. Plášek 30.8.2000, OP); **68** (leg. V. Plášek 12.5.1998, OP); **80** (leg. V. Plášek 20.8.1999, OP).
PL: 55; 68; 97.

Lit: **CZ: valley of Hlučová stream** (Plášek, Kučera, et Duda 2000).

PL: Mt Kiczory, 980 m (Szafran 1965).

D. lineare (Sw.) Lindb. – very rare; open soil.

Rec: **CZ: 6** (leg. V. Plášek 2.10.1999, det. I. Novotný, OP); **8** (leg. V. Plášek 27.8.1997, det. I. Novotný, OP, BRNM; leg. J. Kučera 2.10.1999, herb. J. Kučera; leg. I. Novotný 2.10.1999, BRNM).

Lit: **CZ: between Nýdek village and Velká Čantoryje National Natural Reservation** (Plášek 2000a ; Plášek, ed. 2000b).

D. pusillum (Hedw.) Hampe – very rare; open soil.

Rec: **CZ: 8** (leg. J. Kučera 2.10.1999 - c. spor, herb. J. Kučera).

Lit: **CZ: between Nýdek village and Velká Čantoryje National Natural Reservation** (Plášek, ed. 2000b).

Pleuridium acuminatum Lindb. – very rare; open soil.

Rec: **CZ: 31** (leg. V. Plášek 29.5.2001, OP).

Ceratodon purpureus (Hedw.) Brid. – common; concrete walls, ruderal places, stubble fields, arable fields, waysides.

Rec: **CZ: 4** (not. V. Plášek 13.10.2001); **6** (not. J. Kučera 2.10.1999); **8** (not. V. Plášek 2.10.1999); **13** (leg. V. Plášek 3.9.1999, OP); **15** (not. V. Plášek 30.9.1999); **16** (leg. V. Plášek 12.10.2001, OP); **17** (leg. V. Plášek 18.10.1999, OP); **18** (leg. V. Plášek 22.1.1999, OP); **19** (not. J. Kučera 1.10.1999); **20** (leg. V. Plášek 23.4.1999, OP); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **26** (leg. V. Plášek 14.5.1999, OP); **27** (not. V. Plášek 12.10.2001); **29** (leg. V. Plášek 29.5.2001, OP); **34** (leg. V. Plášek 29.5.2001, OP); **36** (leg. V. Plášek 12.10.2001, OP); **37** (not. V. Plášek 12.5.2001); **46** (leg. V. Plášek 26.8.1997, OP); **54** (leg. K. Valdštýnová 2000, OP); **56** (leg. V. Plášek 3.9.1999, OP; not. J. Kučera 3.10.1999; leg. K. Valdštýnová 2000, OP); **57** (not. V. Plášek 15.10.1999; leg. K. Valdštýnová 2000, OP); **59** (leg. Z. Platošová 26.8.2001, OP); **60** (leg. Z. Platošová 14.10.2001, OP); **63** (leg. V. Plášek 3.8.2000, OP); **64** (leg. V. Plášek 3.8.2000, OP); **69** (leg. V. Plášek 3.8.2000, OP); **72** (leg. V. Plášek 3.8.2000, OP); **80** (leg. V. Plášek 20.8.1999, OP); **84** (leg. V. Plášek 20.8.1999, OP); **92** (leg. V. Plášek 9.9.1999, OP).

PL: 1; 2; 4; 8; 10; 13; 16; 19; 28; 36; 38; 39; 40; 43; 45; 46; 47; 55; 56; 66; 73; 79; 80; 84; 86; 88; 93; 94; 95; 97; 99; 104; 106; 111; 115; 117.

Lit: **CZ: valley of Hlučová stream** (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Duda 1991; Plášek, ed. 2000b).

PL: Mt Soszów, 700 m (Szafran 1965); *Mt Stožek, 800 m* (Szafran 1965).

Distichum capillaceum (Hedw.) B. S. G. – very rare; sandstone crevices.

Rec: **PL: 99.**

Fissidentaceae Schimp.

Fissidens adianthoides Hedw. – very rare; wayside water-head.

Rec: **PL: 55.**

F. bryoides Hedw. – common; mineral soil, wayside escarps.

Rec: **CZ: 1** (not. V. Plášek 12.10.2001); **6** (not. J. Kučera 2.10.1999); **14** (not. V. Plášek 2.6.2000); **18** (leg. V. Plášek 22.1.1999, OP); **19** (leg. V. Plášek 23.4.1999, OP; not. J. Kučera 1.10.1999); **20** (leg. V. Plášek 23.4.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **31** (leg. V. Plášek 29.5.2001, OP); **36** (leg. V.

Plášek 12.10.2001, OP); **56** (leg. V. Plášek 3.9.1999, OP; not. J. Kučera 3.10.1999); **57** (not. V. Plášek 15.10.1999); **58** (leg. Z. Platošová 4.8.2001, OP; leg. V. Plášek 30.8.2000, OP); **59** (leg. Z. Platošová 25.8.2001, OP); **60** (leg. Z. Platošová 20.10.2001, OP); **61** (leg. V. Plášek 30.8.2000, OP); **64** (leg. V. Plášek 3.8.2000, OP); **68** (leg. V. Plášek 12.5.1998, det. Z. Hradílek, OP).

PL: 12; 24; 27; 28; 43; 46; 51; 55; 92.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).
PL: *Stožek Mt., 900 m* (Szafran 1965).

F. dubius P. Beauv. – fairly frequent; sandstone crevices.

Rec: **CZ:** **6** (leg. V. Plášek 2.10.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera; leg. I. Vacínová 2.10.1999, herb. I. Vacínová); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera).
PL: 40; 48; 49; 71; 81; 99.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).
PL: *Mt Kobyła, 724 m* (Szafran 1965).

F. exilis Hedw. – very rare; humus on shaded sandstone rocks.

Rec: **CZ: 19** (leg. J. Kučera 1.10.1999, herb. J. Kučera).

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

F. gracilifolius Brugg.-Nann. et Nyholm – very rare; moist humus on shaded sandstone boulders (saturated by limestone).

Rec: **CZ: 23** (leg. V. Plášek 14.5.1999, det. Z. Hradílek, OP); **68** (leg. V. Plášek 12.5.1998, det. Z. Hradílek, OP).

Lit: **CZ:** *valley of Kotelnice stream* (Plášek 2000a); *valley of Hlučová stream* (Plášek, Kučera, et Duda 2000).

F. pusillus (Wilson) Milde – common; wet, shaded sandstones, mainly in stream valleys.

Rec: **CZ: 6** (leg. V. Plášek 2.10.1999, OP); **13** (leg. V. Plášek 3.9.1999, OP); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **23** (leg. V. Plášek 14.5.1999, OP); **24** (leg. V. Plášek 3.9.1999, OP); **26** (leg. V. Plášek 14.5.1999, OP); **56** (leg. V. Plášek 3.10.1999, OP; leg. J. Kučera 3.10.1999, herb. J. Kučera); **58** (leg. Z. Platošová 26.5.2001, OP; leg. V. Plášek 30.8.2000, OP); **83** (leg. V. Plášek 20.8.1999, teste Z. Hradílek, OP).

PL: 3; 12; 14; 18; 48; 49; 59; 71; 81; 85; 99.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

F. taxifolius Hedw. – common; on ground in deciduous trees, wayside escarps.

Rec: **CZ: 1** (not. V. Plášek 12.10.2001); **4** (not. V. Plášek 13.10.2001); **5** (leg. V. Plášek 30.9.1999, OP); **12** (leg. V. Plášek 27.8.1997, teste Z. Hradílek, OP); **15** (not. V. Plášek 30.9.1999); **18** (leg. V. Plášek 22.1.1999, OP); **19** (not. J. Kučera 1.10.1999); **24** (leg. V. Plášek 3.9.1999, OP); **31** (leg. V. Plášek 29.5.2001, OP); **37** (not. V. Plášek 11.4.2000); **39** (not. V. Plášek 4.7.2000); **55** (leg. K. Valdštyňová 2000, OP); **56** (leg. V. Plášek 3.10.1999, OP; not. J. Kučera 3.10.1999); **57** (not. V. Plášek 15.10.1999); **58** (leg. Z. Platošová 26.5.2001, OP); **60** (leg. Z. Platošová 30.9.2001, OP); **64** (leg. V. Plášek 3.8.2000, OP); **74** (leg. V. Plášek 1.10.1999, det. Z. Hradílek, OP).

PL: 2; 3; 4; 18; 51; 84.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Horský potok brook* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

F. viridulus (Sw.) Wahlenb. – very rare; moist humus on shaded sandstone boulders (saturated by limestone)

Rec: **CZ: 12** (leg. V. Plášek 27.8.1997, det. Z. Hradílek, OP).

PL: 5 – stubble field.

Lit: **CZ:** *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek 2000a).

Seligeriaceae Schimp.

Brachydontium trichodes (F. Weber) Milde. – fairly frequent; wet shaded sandstones.

Rec: **CZ: 6** (leg. V. Plášek 27.8.1997, OP); **7** (leg. V. Plášek 21.9.2000, OP); **8** (leg. V. Plášek 2.10.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **26** (leg.

V. Plášek 14.5.1999, OP); **56** (leg. V. Plášek 3.10.1999, OP; leg. J. Kučera 3.10.1999, herb. J. Kučera); **83** (leg. J. Kučera 2.10.1999, herb. J. Kučera).
PL: 3; 18; 97.

Hist: **CZ:** valley of Hlučová stream, near loc. Filipka (leg. J. Jedlička 1958, BRNM).

Lit: **CZ:** *Velká Čantoryje National Natural Reservation* (Plášek 2000a); *valley of Hlučová stream* (Soldán 1991; Plášek 2000a; Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *Plenisko National Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

Seligeria recurvata (Hedw.) B. S. G. – fairly frequent; wet shaded sandstones.

Rec: **CZ: 26** (leg. V. Plášek 14.5.1999, OP); **61** (leg. V. Plášek 30.8.2000, OP); **68** (leg. V. Plášek 12.5.1998, OP).

PL: 3; 12; 14; 71; 99.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, Kučera, et Duda 2000).

Ptychomitriaceae Schimp.

Campylostelium saxicola (F. Weber et D. Mohr) B. S. G. – fairly frequent; wet shaded sandstones.

Rec: **CZ: 8** (leg. I. Novotný 2.10.1999, BRNM; leg. I. Vacínová 2.10.1999, herb. I. Vacínová); **19** (leg. V. Plášek 23.4.1999, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); **23** (leg. V. Plášek 14.5.1999, OP); **26** (leg. V. Plášek 14.5.1999, OP).

PL: 3; 12; 18; 59; 99.

Lit: **CZ:** *Valley of Hlučová stream* (Plášek 2000a; Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *between Nýdek village and Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).

PL: *Mt Wielka Czantoria, NE slope, valley of the stream Suchy, 610 m* (Żarnowiec et al. 1987).

Grimmiaceae Arnott

Grimmia hartmanii Schimp. – frequent; shaded sandstones.

Rec: **CZ: 6** (leg. V. Plášek 27.8.1997 et 2.10.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera); leg. I. Novotný 2.10.1999 [sub *Racomitrium microcarpon*], rev. V. Plášek, BRNM, OP); **7** (leg. V. Plášek 21.9.2000, OP); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **24** (leg. I. Novotný 1.10.1999 [sub *Racomitrium microcarpon*], rev. V. Plášek, BRNM, OP); **56** (leg. V. Plášek 3.10.1999, OP; leg. J. Kučera 3.10.1999, herb. J. Kučera).

PL: 3; 12; 14; 18; 26; 40; 60; 81; 110.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).

G. pulvinata (Hedw.) Sm. – fairly frequent; old concrete walls.

Rec: **CZ: 3** (leg. V. Plášek 12.10.1999, OP); **15** (not. V. Plášek 30.9.1999); **19** (not. J. Kučera 1.10.1999); **27** (leg. V. Plášek 12.10.1999, OP); **64** (leg. V. Plášek 3.8.2000, OP); **92** (leg. V. Plášek 9.9.1999, OP).
PL: 39; 51; 63; 99.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

Racomitrium aciculare (Hedw.) Brid. – frequent; on boulders in streams, sporadically on moist sandstone in *Picea abies* forest.

Rec: **CZ: 7** (leg. V. Plášek 21.9.2000, OP); **18** (leg. V. Plášek 22.1.1999, OP); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **92** (leg. V. Plášek 9.9.1999, OP).

PL: 28; 39; 51; 52; 59; 89; 92.

Lit: **CZ:** *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

PL: *Istebna-Prędowniec* (Żarnowiec et al. 1986).

R. aquaticum (Schrad.) Brid. – very rare; sprinkled stone, shaded sandstone in stream-bed.

Rec: **CZ: 68** (leg. V. Plášek 12.5.1998, OP).

PL: 12.

R. canescens (Hedw.) Brid. – fairly frequent; dry escarps, grassy places, old concrete walls.

Rec: **CZ: 13** (leg. V. Plášek 3.9.1999, OP).

PL: 5; 12; 16; 23; 47; 91.

Lit: **CZ:** *Pietraszyna-Koczy Zamek Mt* (leg. B. Szafran 05. 09. 1957, Bednarek-Ochyra 1995); *Ustroń* (Milde 1852); *Wisła* (leg. Z. Czubiński 07. 08. 1939, Bednarek-Ochyra 1995).

R. elongatum Frisvoll – rare; grassy escarps on wayside and streams.

Rec: **PL: 22; 53; 55; 57; 62.**

Lit: **PL: *Łabajów*, 580 m (Stebel 1999).**

R. fasciculare (Hedw.) Brid. – very rare; shaded sandstone in *Fagus sylvatica* forest.

Rec: **PL: 3.**

R. heterostichum (Hedw.) Brid. – very rare.

Rec: **CZ: 6** (leg. V. Plášek 2.10.1999, OP; leg. J. Kučera 2.10.1999, herb. J. Kučera).

Lit: **CZ: *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).**

PL: *Wisła*, 600 m (leg. A. Graw 04.7.1940, Bednarek-Ochyra et al. 1990a; Bednarek-Ochyra 1995).

R. microcarpon (Hedw.) Brid. – rare; shaded sandstone boulders.

Rec: **CZ: 6** (leg. J. Kučera 2.10.1999, herb. J. Kučera).

PL: 39; 64; 71; 96.

Lit: **CZ: *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b).**

PL: *Wisła*, 900 m (leg. A. Graw 17. 07. 1940, Bednarek-Ochyra et al. 1990b; Bednarek-Ochyra 1995).

R. sudeticum (Funck) Bruch et Schimp. – very rare.

Rec: **PL: 18** shaded sandstone in *Fagus sylvatica* forest.

Lit: **PL: *Wisła*, 700 m (leg. A. Graw 03. 08. 1940, Bednarek-Ochyra et al. 1990c; Bednarek-Ochyra 1995).**

Specimen reported from Kiczory Mt, 980 (Stebel 1999) belongs to *R. microcarpon*.

Schistidium apocarpum (Hedw.) Bruch et Schimp. – common; sandstones, rarely on concrete.

Rec: **CZ: 6** (leg. J. Kučera 2.10.1999, herb. J. Kučera); **13** (leg. V. Plášek 3.9.1999, OP); **18** (leg. V. Plášek 22.1.1999, OP); **19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **26** (leg. V. Plášek 14.5.1999, OP); **56** (leg. J. Kučera 3.10.1999, herb. V. Plášek); **68** (leg. V. Plášek 12.5.1998, OP).

PL: 2; 12; 14; 16; 24; 26; 36; 39; 46; 47; 51; 53; 80; 89; 91; 117.

Lit: **CZ: *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).**

PL: (s. l.) *Pietraszyna*, 845 m (Szafran 1965); *Mt Stožek*, 800 m (Szafran 1965).

S. crassipilum Blom – frequent; concrete.

Rec: **CZ: 19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **26** (leg. V. Plášek 14.5.1999, OP); **34** (leg. V. Plášek 29.5.2001, det. J. Kučera, OP); **56** (leg. V. Plášek 3.9.1999, OP; leg. J. Kučera 3.10.1999, herb. J. Kučera).

PL: 8; 27; 39; 47; 52; 79; 94.

Lit: **CZ: *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Rohovec stream* (Plášek, ed. 2000b).**

S. dupretii (Thér.) W. A. Weber – fairly frequent; concrete.

Rec: **CZ: 19** (leg. J. Kučera 1.10.1999, herb. J. Kučera); **56** (leg. J. Kučera 3.10.1999, herb. J. Kučera); **61** (leg. V. Plášek 30.8.2000, OP).

PL: 8; 23; 26; 39; 63.

Lit: **CZ: *valley of Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000); *valley of Rohovec stream* (Plášek, ed. 2000b).**

S. elegantulum Blom – very rare; concrete wall.

Rec: **PL: 23.**

S. lancifolium (Kindb.) Blom – rare; concrete, sandstones.

Rec: **CZ: 6** (leg. J. Kučera 2.10.1999, herb. J. Kučera); **19** (leg. V. Plášek 1.10.1999, OP; leg. J. Kučera 1.10.1999, herb. J. Kučera); **56** (leg. V. Plášek 3.9.1999, OP; leg. J. Kučera 3.10.1999, herb. J. Kučera)

PL: 81; 99.

Lit: **CZ: *valley of Hlučová stream* (Plášek, ed. 2000b); *Velká Čantoryje National Natural Reservation* (Plášek, ed. 2000b); *valley of Rohovec stream* (Plášek, ed. 2000b).**

S. papillosum Culm. – very rare; concrete.

Rec: **CZ: 19** (leg. J. Kučera 1.10.1999, herb. J. Kučera).

Lit: **CZ:** valley of *Hlučová stream* (Plášek, ed. 2000b; Plášek, Kučera, et Duda 2000).

S. rivulare (Brid.) Podp. – very rare; on boulders in Olza river.

Rec: **PL: 98; 90.**

S. trichodon (Brid.) Poelt – very rare; on concrete wall of bridge over Olza river, c. spor.

Rec: **PL: 80.**

Annotations on rare and threatened taxa

All bryophytes considered as threatened in the Czech Republic (Váňa 1993, 1995), Poland (Ochyra 1992; Szweykowski 1992) as well as Europe (Schumacker et Martiny 1995) were listed below in alphabetical order. For each species the following information was given: short distributional characteristic in the Czech Republic and Poland and threat categories. Regionally threat categories for Čantoryjský hřbet range (Czantoria range) are proposed.

Abbreviations: **C** - Čantoryjský hřbet range (Czantoria range); **Cz** – the Czech Republic; **E**- endangered taxa; **Eu** – Europe; **Ex** – extinct; **I** – indeterminate (taxa known to be extinct, endangered, vulnerable or rare but where there is not enough information to say which of the four categories is appropriate. It is using in Polish literature; the sense is similar to category **K**); **K** – insufficiently known taxa; **NT** - not threatened taxa; **PL** – Poland; **R** – rare taxa; **RT** – regionally threatened species (taxa obviously not threatened in the whole of Europe, but threatened in or vanished from a large part of it. This category is used in “Red Data Book of Europeans bryophytes”); **V** – vulnerable taxa.

Hornworts

Anthoceros agrestis Paton

In the Czech Silesia the species grows mainly in the shady edges of arable fields. It has an irregular distribution but it does not seem to be a rare there. In Poland *A. agrestis* is considered as rare species, but it seems to be rather a consequence its overlooking then rarity. In lower part of all Beskid Mts. it grows in scattered localities on arable fields, stubble fields, bare soil by waysides etc. (Mierzeńska 1994; Klama 1996; Stebel et Stebel 1998).

Threat categories: **Eu:** NT; **Cz:** NT; **PL:** E; **C:** NT.

Phaeoceros carolinianus (Michx.) Prosk.

In the Czech Silesia and Poland the situation of *P. carolinianus* is comparable to *Anthoceros agrestis*, but it is less frequent. Recently in the all Beskid Mts. it was reported from several localities (Klama 1996; Stebel et Stebel 1998).

Threat categories: **Eu:** NT; **Cz:** NT; **PL:** E; **C:** NT.

Liverworts

Anastrophyllum hellerianum (Nees ex Lindenb.) R. M. Schust.

In the Czech Silesia the species seems to be very rare. Most historical localities is situated in Moravskoslezské Beskydy Mts. (Duda et Váňa 1984), but this liverwort has not been recently found in the area.

In Poland *A. hellerianum* is a very rare species. It occurs in lower mountain altitudes and in the northern part of the country (Szweykowski 1971). In all Beskid Mts. it is very rare, recently reported from Gorce Mts (Mierzeńska 1994) and Beskid Żywiecko-Orawski range (Klama 1996).

Threat categories: **Eu:** NT; **Cz:** E; **PL:** NT; **C:** Ex.

Cephaloziella rubella (Nees) Warnst.

In the past, this little liverwort has not been recorded in the Czech part of the mountain range. Currently it was found for two times in the studied area. It grew on open soil along tourist roads in the mountain area. In the ecological requirements and appearance it is similar to the liverwort *Jungermannia gracillima*, together with which it grew in the studied area.

In the wider region of Moravskoslezské Beskydy Mts. the species was recorded only twice (leg. J. Podpěra 1906; leg. J. Duda 1948), in the past (Duda et Váňa 1974). There is not clear, thanks to absence of detailed bryofloristic research, the species is overlooked or really vulnerable in the territory of Silesia.

In Poland *C. rubella* is rather rare species, known from scattered localities (Szweykowski 1958). In all Beskid Mts. it is very rare, recently reported from Gorce Mts. (Mierzeńska 1994) and Beskid Żywiecko-Orawski range (Klama 1996).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R

Fossombronia wondraczekii (Corda) Lindb

In the Czech part of studied area the liverwort occurs infrequently (in arable fields or moist banks of road) but it does not seem to be a rare. The same situation is on the whole territory of the Czech Republic (cf. Duda et Váňa 1976).

In Poland its position is similar to *Anthoceros agrestis*.

Threat categories: **Eu**: NT; **Cz**: NT; **PL**: E; **C**: NT

Frullania tamarisci (L.) Dumort.

In the Czech Silesia the species is known from about 15 historical localities (cf. Duda et Váňa 1976). Unfortunately there is none known current finding from the area. In the studied area the liverwort has not been recorded.

In Poland *F. tamarisci* occurs mainly in the southern part of the country in the lower mountain altitudes (Szweykowski et Koźlicka 1977). Now in all Beskid Mts. it is a very rare species, reported from single localities (Mierzeńska 1994; Klama 1996).

Threat categories: **Eu**: NT; **Cz**: NT; **PL**: E; **C**: Ex.

Jamesoniella autumnalis (DC.) Steph.

In the past this liverwort was observed by J. Jedlička in Hluchová stream valley (leg. Jedlička, 1958, BRNM). In the area the species was currently confirmed for two times. It always grew on sandstone boulders covered by wide humus layer near the stream. The species was placed among vulnerable taxa in the Czech Republic (Váňa 1993). However, in the territory of Moravskoslezské Beskydy Mts. the placement is unwarranted, due to the presence of a lot of suitable habitats and many know records of the species there in the past (Duda et Váňa 1970).

In Poland it is rather rare species (Szweykowski 1971), but in all Beskid Mts. it seems to be fairly frequent. Recently reported from many localities (Mierzeńska 1994; Klama 1996).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: NT.

Jungermannia caespiticia Lindenb.

Until now, the liverwort has not been recorded in the Czech part of the mountain range. This sample was recently found on a gravel bank of Rohovec stream at 430 m a.s.l. This place seems to be the most eastern known locality in the Czech Republic. From a vertical perspective the locality belongs to the lowest places with a presence of the species in the country (cf. Anonymus 1997b; Anonymus 2000; Duda et Váňa 1970).

This rare liverwort has until now been recorded only sporadically, mainly in the west

part of the country in the altitude of over 800 m a.s.l. (Anonymus 1997b; Anonymus 2000). The nearest known locality is situated in the valley of Travenký potok stream in Radhošťské Beskydy Mts. (leg. Duda, 30.8.1955). Until now, this place was the only one where the presence of the species was recorded and published in the region. The occurrence of the species in Rohovec stream valley confirms its presence there for approximately 50 years.

From herbarium specimens and literature data it is obvious that the species grows nearly always on an open gravel soil near the streams. The colonist species (During 1979) has to, as a result of cyclic succession of the riverside plant communities, continuously spread to new suitable location. This forced migration seems to be the obvious reason of its rare occurrence.

In Poland it is a rare species, known from scattered localities in lowlands (Szweykowski 1958). In all Beskid Mts. it is known from only one station in Gorce Mts. (Mierzeńska 1994).

Threat categories: **Eu**: NT; **Cz**: E; **PL**: NT; **C**: V.

J. leiantha Grolle

In the past, this leafy liverwort has not been recorded in the Czech part of the studied area. Currently it was found in six localities there (Plášek 2000a; Plášek, ed. 2000b; Plášek, Kučera et Duda 2000; Platošová in litt.). The species always grew on rotten spruce logs and it was always recorded with perianths.

In the territory of Radhošťské Beskydy Mts. the occurrence of the species is more often in comparison of the other part of the Czech Republic (Duda et Váňa 1969).

In Poland it is generally rare species (Szweykowski 1958), but in all Beskid Mts. it seems to be fairly frequent (Mierzeńska 1994, 2001; Klama 1996).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: NT

J. subelliptica (Lindb. ex Kaal.) Lev.

The current occurrence of the species in the Czech part of the studied area confirms its presence there for approximately 25 years. Firstly it was found there in 1975 by J. Duda in Radvanov stream valley. The occurrence of the species in the Czech Republic is known mainly from Radhošťské Beskydy Mts. (about 10 recorded location) and rarely in the W Bohemia near Mariánské Lázně town (Duda et Váňa 1970).

In Poland *J. subelliptica* is a rare species, but recently in all Beskid Mts. many localities were found in Gorce Mts. (Mierzeńska 1994) and Beskid Żywiecko-Orawski range (Klama 1996).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R-V

Lophozia obtusa (Lindb.) A. Evans

In both of the Czech Republic and Poland *L. obtusa* is a rare species occurring mainly in the mountain areas (Szweykowski et Kožlicka 1974; Duda et Váňa 1990). The presence of this liverwort exists from the Czech part only in form of publication (Kulesza 1922), without any collected specimen. It is unknown from Polish part of Silesian Beskid Mts. but recently it was reported from adjacent mountain ranges - Gorce Mts. (Mierzeńska 1994) and Beskid Żywiecko-Orawski range (Klama 1996).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: Ex.

Metzgeria conjugata Lindb.

In the Czech Republic the liverwort mainly grows in shady rocks or bark of trees from middle altitudes to the mountain areas. According to article about its distribution published by Duda (in Duda et Váňa 1989) the species seems to be often in the all Western Carpathians.

In Poland *M. conjugata* occurs mainly in the mountains at all altitude of 600-1200 m, very rarely on the lowlands (Szwejkowski 1968). In all Beskid Mts. it is fairly frequent (Mierzeńska 1994, 2001; Klama 1996)

Threat categories: **Eu**: NT; **Cz**: NT; **PL**: V; **C**: NT

Nowellia curvifolia (Dicks.) Mitt.

In the past this liverwort was observed in 1958 by J. Jedlička in Hluchová stream valley (Duda et Váňa 1983). Even after an extensive research, it was not possible to confirm the presence of the species in the area.

In the territory of Silesia the occurrence of the species is known mainly from Radhošťské Beskydy Mts., where about 20 records were published (Duda et Váňa 1983).

In Poland *N. curvifolia* is rather rare species, growing mainly in E part of the country (Szwejkowski 1969). In all Beskid Mts. it is very rare now, known from several localities (Mierzeńska 1994; Klama 1996; Żarnowiec et Klama 1996).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R-Ex

Porella platyphylla (L.) Pfeiff.

In the Czech Republic the species frequently occurs in both of sandstone and calcareous rocks or on the bark of deciduous trees. Many historical localities from Silesia are situated in the wider region of Moravskoslezské Beskydy Mts. (Duda et Váňa 1979).

In Poland *P. platyphylla* occurs fairly frequently only on calcareous areas, where it grows mainly on limestone. On the epiphytic habitats this liverworts is almost entirely extinct. In all Beskid Mts., *P. platyphylla* is very rare now and grows mainly on sandstones enriched in calcium. Recently it was reported from few localities (Mierzeńska 1994, 2001; Klama 1996; Stebel et Stebel 1998).

Threat categories: **Eu**: NT; **Cz**: NT; **PL**: E; **C**: NT

Riccardia chamaedryfolia (With.) Grolle

In the Czech Republic the species occurs very rarely. Until now there is only known locality from Moravskoslezské Beskydy Mts. (leg. Podpěra 1906 – cf. Duda et Váňa 1981). In the studied area the liverwort has not been recorded.

In Poland *R. chamaedryfolia* is rare species. It occurs mainly in N part of the country, very rarely in mountains (Szwejkowski et Koźlicka 1980). Recently it has not been observed in all Beskid Mts.

Threat categories: **Eu**: NT; **Cz**: E; **PL**: E; **C**: Ex.

Riccardia latifrons (Lindb.) Lindb.

The historical presence of this epixylous liverwort exists only in form of publication (Kulesza 1922), without any collected specimen (Duda et Váňa 1982a). It was in the recent years found in several localities in the Czech part of studied area: in valley of Hluchová and Radvanov streams and in Plenisko primeval forest. The species grew on rotten spruce logs sometimes together with liverwort *Riccardia palmata*.

In the area of Moravskoslezské Beskydy Mts. the occurrence of the species is known from 20 localities at the altitude ranging 480-860 m a.s.l. (Duda et Váňa 1982a). Its occurrence recorded in the studied area lay in the similar ranging - 440-720 m.

The species was placed among the vulnerable taxa in the Czech Republic (Váňa 1993). However, the liverwort is not threatened in the part Silesia.

In Poland *R. latifrons* occurs mainly in the lowlands, rarely in the mountains (Szwejkowski et Koźlicka 1980). In all Beskid Mts. it is rare, recently reported from several

localities (Mierzeńska 1994, 2001; Klama 1996).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: NT

Riccardia multifida (L.) S. Gray

In the past this liverwort was observed by Jedlička in Hluchová stream valley (leg. Jedlička, 1958, BRNM). Although its presence was not established there, it was recently found in the Kotelnice stream valley and Kostkov stream valley. This species was grown on the wet underside of the stream bank together with other liverwort *Aneura pinguis*. The findings in the stream valleys mean the only known locations in the study area where *Riccardia multifida* currently grows (Anonymus 1999a; Plášek 2000a; Platošová in litt.).

In the wider region this liverwort was in the recent years found in several other locations - in Radhošťské Beskydy Mts. (leg. V. Plášek, OP), Hostýnské vrchy Mts. (Hradílek in litt.; Dančák in litt.) and in the spring areas on the all range of Western Carpathians (Hájek in litt.). There are also ten historically known localities of its occurrence there (Duda et Váňa 1981). It seems, therefore, to be the case of a neglected rather than endangered species.

In Poland *R. multifida* is fairly frequent species. Recently from all Beskid Mts. it was reported from many localities (Mierzeńska 1994, 2001; Klama 1996; Stebel et Stebel 1998).

Threat categories: **Eu**: NT; **Cz**: E; **PL**: NT; **C**: R

Riccardia palmata (Hedw.) Carruth.

In the past this liverwort was observed in 1958 by J. Jedlička in Hluchová stream valley. Recently it was confirm there by author and its occurrence was in addition recorded in valley of Radvanov and Rohovec streams. The species grew on rotten spruce logs sometimes together with liverwort *Riccardia latifrons*.

There are known about 10 historical localities with occurrence of the species from Radhošťské Beskydy Mts. (Duda et Váňa 1982b).

In Poland *R. palmata* occurs mainly in the mountains (Szweykowski, Kožlicka 1980). In all Beskid Mts. it is fairly frequent. Recently it was reported from many localities (Mierzeńska 1994, 2001; Klama 1996).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: NT

Riccia bifurca Hoffm.

The presence of this terrestrial liverwort exists only in form of publication (Kulesza 1922), without any collected specimen. Nevertheless, its presence in the mountain range can not be excluded because of sufficient number of arable fields and similar places. Even after an extensive research, it was not possible to confirm the presence of the species in the area. The nearest and so far unique record in Silesia comes from 1950 from Opava vicinity (Duda et Váňa 1975; Rivola 1975).

In Poland *R. bifurca* is a rare species. Overwhelming majority of its localities origin from 19th century and first half of 20th century (Szweykowski 1958). Current distribution of this species is unknown.

Threat categories: **Eu**: NT; **Cz**: E; **PL**: NT; **C**: Ex.

Scapania carinthiaca Jack ex Lindb.

Until now the sub arctic liverwort has not been found in the Czech Republic.

In Poland *S. carinthiaca* is known only from two localities located in Silesian Beskid Mts. reported by Rejment-Grochowska (1950). Since that time nobody has observed this species on whole area of Poland

Threat categories: **Europe**: E; **Cz**: not known ; **PL**: NT; **C**: Ex.

Mosses

Amblystegium fluviatile (Hedw.) B., S. et G.

The moss seems to be an infrequent to rare species in both of the Czech Republic and Poland. It grows mainly in the streams and rivers. Its current distribution is unknown but it is evaluated as fairly frequent in lower parts of all Beskid Mts. (Stebel et Stebel 1998; Stebel 1999; Stebel et Ochrya 2000). The occurrence of the species is not recently known from the Czech part of the mountain range.

Threat categories: **Eu**: NT; **Cz**: NT; **PL**: R; **C**: R.

A. tenax (Hedw.) C. Jen.

In the Czech Silesia and Poland the situation of *A. tenax* is comparable to *A. fluviatile* but it seems to be more frequent. In Poland the species occurs regularly in N part of the country.

Threat categories: **Eu**: NT; **Cz**: NT; **PL**: R; **C**: K-R

Anacamptodon splachnoides (Brid.) Brid.

The presence of this epiphytic moss in the Czech part of investigated area has been recorded in three separate locations: in virgin forest in Velká Čantoryje Mt. (Reichardt 1858; Milde 1861; Podpěra 1928; Vězda 1960); in vicinity of Jablunkov town (Limpricht 1895) and Jablunkov - Návsí town (Milde 1858, 1861 et 1869; Limpricht 1895; Podpěra 1928; Vězda 1960). These records, although made by different authors, are repeated confirmations of Plucar findings from the middle of 19th century.

In the Polish part this species was reported from Ustroń town and Wielka Czantoria Mt (Milde 1852, 1857, 1869; Reichardt 1858). The localities of Velká Čantoryje Mt. and Wielka Czantoria Mt are probably one station, because it is simply the Czech and Polish name of the same mount. The last data of *A. splachnoides* from the all Beskid Mts. origin from Barania Góra range in the Silesian Beskid Mts. (Szafran 1965; Bednarek-Ochrya et al. 1994). It worth to noting, that recently this moss was found in the Katowice town, about 80 km N of investigated area (Fojcik et Stebel 2001).

Although the species is easily recognizable in the terrain, its presence has not been confirmed in the studied area. This fact places it on a list of extinct species in the area.

Threat categories: **Eu**: E; **Cz**: E; **PL**: E; **C**: Ex.

Anomodon rugelii (Müll. Hal.) Keissl.

In both of the Czech Republic and Poland *A. rugelii* is a very rare moss. Its current distribution is unknown. In all Beskid Mts. it occurs on scattered localities (Stebel 2000 and unpublished data).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R.

Atrichum angustatum (Brid.) Bruch et Schimp.

In the past the species was recorded only sporadically from the Czech Republic. Until now there are known about 10 historical specimens from the country (housed mainly in PR, PRC and OP) and 2 recent ones found by Kučerová in 1992 and 1993 in the territory of Southern Bohemia (housed in PRC). In the studied area the moss has not been recorded.

In Poland *A. angustatum* is considered as a rare species, but it seems to be rather a consequence its overlooking then rarity. In all Beskid Mts. it grows on scattered localities (Szafran 1965; Stebel et Stebel 1998; Stebel et Ochrya 2000; Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: E; **PL**: NT; **C**: R.

A. tenellum (Röhl.) Bruch et Schimp.

The situation of the species is comparable to *A. angustatum* in the Czech Republic. It has not been found in the studied area. Only current finding in the Czech part of Silesia comes from kaolin's mine situated near Vidnava town (Plášek 1997a).

In Poland *A. tenellum* is considered as a rare species, but it seems, like *A. angustatum*, to be rather a consequence its overlooking than rarity. It seems to be more frequent than previously species. In all Beskid Mts. it grows on scattered localities (Stebel 2000; Stebel et Stebel 1998; Stebel et Ochrya 2000; Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R.

Brachydontium trichodes (Web.) Milde

A small epilithic moss prefers moist sandstone boulders near the streams or shaded stones along forest roads. In these ecological requirements and appearance it is similar to the moss *Campylostelium saxicola*, together with which it sometimes grows in the studied area. Overall spread in the Czech Republic is limited to boundary mountain ranges especially to Moravskoslezské Beskydy Mts. (Soldán 1991).

First herbarium specimen from the study area was collected by J. Jedlička in 1958. It comes from Hluchová stream valley (Soldán 1991). Recently it was confirm there by author and its occurrence was in addition recorded in 6 localities (Anonymus 1998; Plášek 2000a; Plášek, ed. 2000b; Plášek, Kučera et Duda 2000). The moss is not endangered in the mountain range now.

In Poland this species was considered as a very rare moss, but recently it has been found in many localities in all Beskid Mts. (Stebel 1999; Stebel et Ochrya 2000; Stebel, unpublished data).

Threat categories: **Eu**: R; **Cz**: V; **PL**: NT; **C**: NT.

Brachythecium campestre (Müll. Hal.) B., S. et G.

In both of the Czech Republic and Poland current distribution of *B. campestre* is unknown. In the Polish part of the mountain range it is known from two localities, where this species grows on rotten wood. The species occurs in scattered localities in wider region of the Beskid Mts. (Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R.

B. oedipodium (Mitt.) A. Jaeger

There is known only literature reference about recording of the species in the Czech part of the studied area (Duda 1991). Even after an extensive research, it was not possible to confirm the presence of the species in the mountain range.

In Poland *B. oedipodium* is fairly frequent, locally even common species. It occurs mainly on lowlands, rarely in mountains. It grows on humus soil in coniferous forest, rarely on rotten wood.

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R.

Bryoerythrophyllum ferruginascens (Stirt.) Giac.

The species has not been recoded in the Czech part of the studied area.

In Poland *B. ferruginascens* is a very rare species, till this time known from only two stations (Duell et Meinunger 1989; Karczmarz, et Żarnowiec 1989b). The new findings are the first localities of this species in the Beskid Mts. The nearest locality is located in the Oświęcim town, about 50 km NE from Wisła town.

Threat categories: **Eu**: NT; **Cz**: R; **PL**: I; **C**: R.

Bryum klinggraeffii Schimp.

The placement of this species among endangered taxa in the Czech Republic (Váňa 1995) is unwarranted, even though it has been regularly overlooked in the past and its natural habitats (edges of arable fields, open soil) were seldom studied by bryologists. V. Pospíšil even placed it among extinct species in Moravia (Pospíšil 1988). Nowadays, thanks to intensive research, it is often found on the whole territory of the Czech Republic including the studied area (Anonymus 1996; Hradílek, ed. 1998).

In Poland this species seems to be fairly frequent in the lowlands and lower part of mountains. It grows mainly on bare soil, ruderal places, arable fields, stubble fields etc.

Threat categories: **Eu**: NT; **Cz**: E; **PL**: NT; **C**: NT.

Bryum rubens Mitt.

A common terrestrial moss with a presence of rhizoid tubers. The placement of this species among vulnerable taxa in the Czech Republic (Váňa 1995) is unwarranted, even though it has been regularly overlooked in the past and its natural habitats (edges of arable fields, open soil) were seldom studied by bryologists. Nowadays, thanks to intensive research, it is often found on the whole territory of the Czech Republic (Soldán, ed. 1996; Hradílek, ed. 1998; Plášek, ed. 1998; Kučera in litt.).

In Poland the situation is similar to *B. klinggraeffii*.

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: NT.

Bryum tenuisetum Limpr.

There is only location with the occurrence of the species in the Czech part of the mountain range. It was recorded in Rohovec stream valley, where it grew on moist open soil.

In Poland *B. tenuisetum* is a very rare moss, knowing only from SW part of the country (Karczmarz 1975).

Threat categories: **Eu**: I; **Cz**: K; **PL**: NT; **C**: K-R

Bryum uliginosum (Brid.) Bruch et Schimp.

A very rare species with currently insufficiently known occurrence in the Czech Republic. In the past, it has not been recorded in the area (cf. Podpěra 1973). The only current specimen was found in the edge of peat bog (so-called Droserová enkláva) at the altitude about 550 m a.s.l.

In Poland it is rather rare species but its current distribution is unknown. In Polish part of Czantoria range it has not been found.

Threat category: **Eu**: RT; **Cz**: E; **PL**: NT; **C**: V.

Buxbaumia viridis (Moug. ex Lam. et DC.) Brid. ex Moug. et Nestl.

An interesting epixyloous moss, its distribution in the Czech Republic and Europe is currently been extensively studied as part of NATURA' 2000 project. Even though the number of known locations is slowly growing each year, this species is still considered as endangered (Váňa 1995a). This classification is justified because its existence in a given locality is not a proof of its permanent presence there. Ecology and population biology of the species in the area are intensively studied by the first author and preliminary results have been published (Plášek et Vacínová 2001). The distribution of the species in the Czech and Slovak Republics, prior to the commencement of NATURA' 2000 project, was documented by Soldán (Soldán 1992) and subsequently the species was placed in the Red Book of threatened species (Kotlaba et al. 1995).

In the Czech part of Čantoryjský hřbet range this species was recorded in four various

locations (cf. Anonymus 1999a; Plášek 2000a et 2001a), but only in one of them *Buxbaumia viridis* currently exists and its population is sufficiently vital. This location is situated in upper part of Hluchová stream valley where the moss grows on rotten spruce log nearby the stream.

What makes it interesting is the fact that the first time the moss was found in the mountain range (leg. Plášek 22.1.1999, OP) was only the third time in the last thirty years this species was found in the Czech Republic (cf. Soldán 1992; Anonymus 1998).

In Poland *B. viridis* is very rare species (Szmajda et al. 1991). In Polish part of Czantoria range this moss was reported only once from Ustroń town (Milde 1852), and till this time it was not rediscovered.

Threat categories: **Eu**: V; **Cz**: E; **PL**: V; **C**: V.

Callicladium haldanianum (Grev.) H. A. Crum

The species has not been recoded in the Czech part of the studied area. However, in the wider region this moss has been recently found in several locations - in valley of Odra river (Duda 1997).

In Poland *C. haldanianum* occurs in lowlands and lower part of mountains. It was considered as a rare species, but recently a lot of its localities have been found, especially in management forests near industrial centers and towns (cf. Stebel 1997a; Fojcik et Stebel 2001). It grows mainly on rotten log and stumps, rarely on lower part of deciduous tree trunks and soil. The populations are as a rule abundant, the most common fertile.

Threat categories: **Eu**: RT; **Cz**: V; **PL**: NT; **C**: R.

Campylopus flexuosus (Hedw.) Brid.

The species has not been recoded in the Czech part of the studied area. In Poland most of its localities came from the mountains or adjacent regions and were collected in the 19th century and the first half of 20th century (Rusińska 1995). Unfortunately, locality from Czantoria range reported by Szafran (1965) was not confirmed.

Threat categories: **Eu**: NT; **Cz**: NT; **PL**: V; **C**: Ex.

C. subulatus Schimp.

The species has not been recoded in the Czech part of the studied area.

In Poland *C. subulatus* seems to be rare species, but its current distribution is unknown. In Beskid mountains ranges it occurs on scattered localities, mainly on soil, on places disturbed by human activities (Szafran 1965; Stebel et Ochrya 2000; Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: E; **PL**: NT; **C**: R.

Campylostelium saxicola (Web. et Mphr.) B.S. et G.

Considered to be the smallest species of order *Grimmiales* in the territory. It prefers moist sandstone boulders near the streams or shaded stones along forest roads. In these ecological requirements and appearance it is similar to the moss *Brachydontium trichodes*, together with which it often grows in the studied area. Overall spread in the Czech Republic is limited to Sudeten mountain ranges and Moravskoslezské Beskydy Mts. (Soldán 1991). Most recorded locations, including recent yet unpublished (leg. Plášek, OP), come from Moravskoslezské Beskydy Mts. One can conclude that, thank to sufficient substrate, this species is not considered as endangered. It can, however, be overlooked especially during the period when capsules are not mature.

In Poland *C. saxicola* was considered as a very rare species, but recently a lot of localities have been found in the Beskid Mts. (Żarnowiec et Klama 1996, Żarnowiec et al. 1997; Stebel 1999, 2000; Stebel et Ochrya 2000; Stebel, unpublished data).

Threat categories: **Eu**: R; **Cz**: E; **PL**: NT; **C**: NT.

Dicranella schreberiana (Hedw.) Dix.

The terrestrial species which grows mainly in the edges of arable fields or open soil. The distribution of the species is currently insufficiently known in the Czech Republic. In the studied area was found in only locality where grew together with *Bryum rubens*, *Fissidens taxifolius* and *F. viridulus*.

In Poland it seems to be fairly frequent moss. It occurs mainly on bare soil, wasted lands, arable fields, stubble fields, ruderal places etc. on lowlands and lower part of mountains.

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: K-NT.

Dicranoweisia cirrata (Hedw.) Lindb. ex Milde

The epiphytic moss which is currently spreading undoubtedly from NW part of Europe to the East. Its precise distribution in the Czech Republic with analysis of its ecological requirements was published for two times (Pospíšil 1989; Plášek 2001b). The survey shows that the species was found in 159 localities in the Czech Republic, mainly in NW part of the country.

One of the recent findings of the species in the studied area (loc. "Městský les" nearby Jablunkov town) is the most eastern known locality in the Czech Republic.

The species creates, beside the spores, a lot of gemmae. They help the moss to continuously spread to the new locations.

Considering these facts, it is surprising to find the species listed as one of the vulnerable species in the Czech Republic (Váňa 1995a).

In Poland, like in the Czech Republic, this species spreads rapidly from west to east. Now it is difficult to count all its localities, but only in the Polish part of Upper Silesia it is known from the more than 90 stations (Stebel, Plášek 2001; Stebel, unpublished data). In the Polish part of Czantoria range some populations of *D. cirrata* are abundant.

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: NT.

Dicranum bonjeanii De Not.

The species has not been recoded in the Czech part of the studied area.

In Poland *D. bonjeanii* is rare species now, but its current distribution is unknown. In Beskid mountains ranges it is known in scattered localities (Stebel et Stebel 1998; Stebel et Ochyra 2000; Stebel, unpublished data). It grows in water heads and spring-bogs.

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R.

D. tauricum Sap.

Till middle 80's of 20th century this species was very rare in Poland. Since this time, it has been rapidly expanding in western part of the country. Its current distribution is unknown. For example, in the area of Upper Silesia it has about 50 localities (Stebel et Plášek 2001; Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: NT; **PL**: R; **C**: NT.

Didymodon spadiceus (Mitt.) Limpr.

A moss with scattered distribution in the Czech Republic prefers basic and moist surface (Kučera 1998, 2000a). In the past, this species has not been recorded in the studied area. Only recent finding comes from the center of Nýdek village (leg. I. Novotný 30.9.1999, det J. Kučera, BRNM) from an artificial surface.

In Poland it is rather rare species, growing in the same ecological condition as in the

Czech Republic. It is unknown from Polish part of Czantoria range.

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: K

Ditrichum lineare (Sw.) Lindb.

First finding in the Czech part of the studied area comes from the bank of tourist road towards Velká Čantoryje Mt. (leg. Plášek 27.8.1997, OP). After two years, during the field trip of Bryo – lichenological section of the Czech Botanical Society, the occurrence of the species was confirmed in the locality (Plášek, ed. 2000b).

This species has not been recorded in territory of Moravia and Silesia more than for 40 years. Prior known specimen was collected in 1954 by Šmarda (BRNM) and it comes from Hrubý Jeseník Mts. (Novotný in litt.).

In Poland it is a very rare species, known only from the mountains. It has not been found in the Polish part of Czantoria range.

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R.

Ephemerum serratum (Hedw.) Hampe

The species was recently found twice in the studied area. Always it grew on open soil in arable fields. One can conclude that, thank to sufficient substrate, this species is not considered as rare in the area.

In Poland *E. serratum* is considered as a rare species, but it seems to be rather a consequence its overlooking then rarity. In lower part of Beskid mountains ranges it grows in scattered localities (Stebel et Stebel 1998; Stebel 2000; Stebel et Ochrya 2000; Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: NT; **PL**: I; **C**: NT.

Eurhynchium speciosum (Brid.) Jur.

New species for the mountain range. It was collected in Hluchová stream valley and Plenisko primeval forest where always grew on shaded moist soil. Precise distribution in the Czech Republic is not currently known but it seems to be, thanks to study of herbarium specimens, very scattered in the all country (Soldán in litt.).

In Poland, distribution of this species needs a carefully study. In Polish part of Czantoria range and other ranges of the Beskid Mts. it occurs mainly on water-heads and boulders in streams in scattered localities (Stebel 2000; Stebel et Stebel 1998; Stebel et Ochrya 2000; Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**:

Fissidens adianthoides Hedw.

The species has not been recoded in the Czech part of the studied area.

In Poland *F. adianthoides* is rather rare, but locally frequent species. In the Beskid Mts. it is known from many localities (Stebel et Stebel 1998; Stebel 1999, 2000; Stebel et Ochrya 2000; Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R-V.

F. gracilifolius Brugg.-Nann. et Nyh.

Small moss occurs mainly in calcareous areas (Hradílek 1994). In the studied area the species grows because of some sandstone stones or rocks are saturated by limestone. The moss was found there in 2 localities: valleys of Hluchová and Kotelnice streams (Plášek 2000a, Plášek, Kučera et Duda 2000).

In Poland distribution of *F. gracilifolius* needs detailed study. It is unknown from Polish part of the study area.

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R.

Fissidens viridulus (Sw.) Wahlenb.

A variable species grows mainly on the open soil in calcareous areas (Hradílek 1994). In the mountain range the moss was found on moist soil, which covered a rock outcrop. In the same place grew mosses *Bryum rubens*, *Dicranella schreberiana* and *Fissidens taxifolius*, too (Plášek, 2000a). It is only known finding in the studied area.

In Poland distribution of *F. viridulus* needs detailed study. In Polish part of the study area and in other ranges of the Beskid Mts. it seems to be very rare (Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R.

Hookeria lucens (Hedw.) Sm.

The suboceanic moss. Overall spread in the Czech Republic is limited to the S and SW part of Bohemia and NE Moravia (Duda 1951; Kotlaba et al. 1995; Pilous 1937; Anonymus 1992). Most of Moravian localities, recorded by J. Duda, come from the middle of 20th century from the range and foothills of Moravskoslezské Beskydy Mts.

In the past, it has not been recorded in the studied area. The only current specimen, recorded in 1997 by V. Plášek, grew on rotten wood in the edge of peat bog (so-called Droserová enkláva) at the altitude about 550 m a.s.l. (Anonymus 1997b; Plášek 2000a). Unfortunately, it was not possible to confirm the presence of the species there in the next years. One can conclude that, thanks to making of insensitive forest management, this species vanished from the locality.

The species was rightfully placed among endangered taxa in the Czech Republic (Váňa 1995a) and in the Red Book of threatened species (Kotlaba et al. 1995).

In Polish part of Czantoria range this species was reported only once from Istebna-Andzielówka by Szafran (1965) and now it is not rediscovered. At the present time it is a very rare species in Poland (Ochyra et al. 1985a). Recently it has been found only few times on scattered localities (Mierzeńska 1999; Stebel, unpublished data). It seems to be in danger of extinction in Poland.

Threat categories: **Eu**: NT; **Cz**: E; **PL**: NT; **C**: E-(Ex).

Hygrohypnum duriuculum (Hedw.) Loeske

First finding of the moss in the Czech part of the studied area. The only current specimen was found on strongly sprinkled stone in the middle part of Hluchová stream at the altitude about 440-450 m a.s.l., which is probably the lowest and the most eastern known locality in the Czech Republic. The precise distribution of the moss in the country is not known but most localities are situated in the mountain to upper mountain belt in the Krkonoše and Šumava Mts. The species was placed (as *H. molle*) among endangered taxa in the Czech Republic (Váňa 1995a).

In Poland *H. duriusculum* is known from many localities in the mountains (Szafran 1961). In Polish part of Czantoria range and in other ranges of the Beskid Mts. it grows on boulders in streams at scattered, but sometimes abundant localities (Stebel 1999, 2000 and unpublished data).

Threat categories: **Eu**: NT; **Cz**: E; **PL**: NT; **C**: R.

Hylocomium pyrenaicum (Spruce) Lindb.

The species has not been recoded in the Czech part of the studied area.

In Poland distribution of *H. pyrenaicum* was detailed elaborated by Ochyra et al. (1992). It occurs only in the mountains, especially in the sub alpine and alpine belts.

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: Ex.

Hypnum andoi A. J. E. Sm. (syn. *H. mammillatum* (Brid.) Loeske)

In the Czech part of the studied area the species was found in 2 localities. It grew on bark of tree, mainly on *Fagus sylvatica* and *Fraxinus excelsior*. In the Czech Republic it grows mostly in the mountain areas or less on humid places of lower altitudes (Kučera in litt.).

In Poland current distribution of this species is unknown and needs carefully study.
Threat categories: **Eu**: NT; **Cz**: K; **PL**: NT; **C**: NT.

H. jutlandicum Holmen et Warncke

The species has not been recoded in the Czech part of the studied area.

In Poland current distribution of this species is unknown and it needs carefully study.
Threat categories: **Eu**: NT; **Cz**: K; **PL**: NT; **C**: K.

H. pallescens (Hedw.) Pal. Beauv.

An epiphytic moss which grows mainly in the mountain to upper mountain belt. Its current distribution is a rather poorly known in the Czech Republic. In the studied area the species was found in 4 localities where always occurred at the bark of *Acer pseudoplatanus* (Plášek 2000a; Plášek, ed. 2000b; Plášek, Kučera et Duda 2000). All the found populations were sufficiently vital and they even produced the capsules.

In Poland detailed distribution of *H. pallescens* is unknown. It was considered as a rare species, growing mainly in the mountain areas. Recently, more and more localities of this species are being found on the lowlands too, especially in management forest, near towns and industrial centers (Stebel 1997a; Fojcik et Stebel 2001). The populations are sometimes abundant, almost always fertile. It seems to be a spreading epiphytic species, probably in consequence of bark acidification under the influence of “acid rains” (Stebel 1997b).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: NT.

H. pratense W. D. J. Koch ex Spruce

In the Czech part of the area the species grew on 4 localities, mostly on moist meadows or in banks of drainage ditches.

In Poland it is a rare species, but its detailed distribution is unknown. In Beskid mountains ranges it grows mainly in rich spring-bogs in scattered localities (Stebel et Stebel 1998; Stebel 1999; Stebel 2000; Stebel et Ochyra 2000).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: V; **C**: NT.

Neckera besseri (Lobarz.) Jur.

The presence of this moss in the studied area exists only in form of publication (Kulesza 1922), without any collected specimen. Even after an extensive research, it was not possible to confirm the presence of the species in the area.

In Poland *N. besseri* is rare species, growing mainly on rocks, especially limestone (Ochyra et al. 1988b). In the Beskid Mts. it grows on scattered localities on sandstone enriched with calcium, sporadically on bark of deciduous trees (Szafran 1965; Stebel et Stebel 1998; Stebel et Ochyra 2000).

Threat categories: **Eu**: R; **Cz**: NT; **PL**: NT; **C**: Ex.

N. pennata Hedw.

The species has not been recoded in the Czech part of the studied area.

In Poland *N. pennata* was reported almost exclusively from tree trunks. It is very sensitive on human impact and actually this species seems to be in danger of extinction on

almost whole area. Now, in the Beskid Mts. it has been found only in few localities (Stebel, unpublished data).

Threat categories: **Eu**: V; **Cz**: E; **PL**: NT; **C**: Ex.

Orthotrichum lyellii Hook. et Tayl.

The epiphytic moss produces the gemmae. The species is currently known only from two localities in the Czech part (Plášek, ed. 2000b). It grew on old solitaire maples (*Acer pseudoplatanus*). There were no historical data about the occurrence of the species known from the studied area. The nearest known localities are situated in Radhošťské Beskydy Mts. (cf. Vondráček 1993).

In Poland this moss grows on lowlands and lower part of mountains, but its current distribution is unknown. Now in Polish part of Czantoria range and other ranges of the Beskid Mts. it occurs in scattered localities, exclusively on bark of wayside trees (Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: I; **C**: R.

Orthotrichum obtusifolium Brid.

The epiphytic gemmiferous moss which occurs often than previous species in the Czech part of the studied area. It is recently known from 5 localities there. (Plášek 2000a, Plášek, ed. 2000b; Plášek, Kučera et Duda 2000). The species grew mainly at the bark of old solitaire maples, but one of finding comes from a concrete bridge.

In Poland it is fairly frequent moss. It grows mainly on bark of solitary or wayside deciduous trees, but it is also frequently found on concrete walls.

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: NT.

Philonotis caespitosa Jur.

In the Czech part of the studied area small populations of the moss grew only in 2 localities – always on moist soil in drainage ditches. In the territory of the Czech Republic the species occurs in scatter localities but it does not appear to be a rare or vulnerable species (Buryová 1996).

In Poland *Ph. caespitosa* is rather rare species, but its current distribution is unknown. In other ranges of the Beskid Mts. it is known from scattered localities (Stebel et Stebel 1998; Stebel 2000; Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: NT; **PL**: V; **C**: R.

Plagiomnium ellipticum (Brid.) T. J. Kop.

In the Czech part of the mountain range the species has not been recorded. However, it was found near the territory in Horní Líštná village on the bank of a pond (leg. Plášek 17.11.1998, OP).

In Poland *P. ellipticum* is rather rare species, but locally seems to be frequent (Rusińska 1981). Its current distribution is unknown. In the Beskid Mts. it is known from scattered localities (Stebel et Stebel 1998; Stebel 2000; Stebel et Ochrya 2000; Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: E; **PL**: NT; **C**: R.

Platygyrium repens (Brid.) B.S. et G.

Although the epiphytic moss was placed among the vulnerable species in the Czech Republic (Váňa 1995a), it occurs very often in the studied area. The species was found in 16 localities (Plášek, ed. 2000b; Plášek, Kučera et Duda 2000) and the populations were always sufficiently vital and produced many capsules and asexual flagellate branches. It grew at the

bark of several trees, e.g. *Fraxinus*, *Acer*, *Salix*, *Tilia*, *Quercus* or *Malus*.

In Poland it is a frequent moss, growing sometimes in great abundance on bark of deciduous trees and logs. Like *Hypnum pallescens*, it is probably next species belonging to the group called “acidophilous epiphytes”, spreading under influence of “acid rains” (Söderström 1989, Stebel 1997).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: NT.

Pohlia andalusica (Hoehnel) Broth.

It is the first finding in the Czech part of the mountain range (Plášek, ed. 2000b). The species was found in 2 near one's localities where it grew on open soil along the tourist road.

In Poland *P. andalusica* grows in scattered localities in lowland and in higher mountains, mainly on denudated soils of roadsides, ditch margins and moraine hills (Karczmarz, Żarnowiec 1989). From Polish part of Czantoria range unknown.

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R.

P. lescuriana (Sull.) Grout

The species has not been recoded in the Czech part of the studied area.

In Poland *P. lescuriana* is a very rare species but its current distribution is unknown.

Threat categories: **Europe**: NT; **Cz**: E; **PL**: NT; **C**: R.

P. melanodon (Brid.) J. Shaw

The species has not been recoded in the Czech part of the studied area.

In Poland *P. melanodon* is fairly frequent species but its current distribution of is unknown. It occurs in lowland and lower part of mountains. This moss grows mainly on arable fields, stubble fields, ruderal places, waysides etc. In the Beskid Mts. it is known from scattered localities (Stebel et Stebel 1998; Stebel et Ochyra 2000; Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R.

Pseudephemerum nitidum (Hedw.) Loeske

In the Czech part of the studied area the small moss was found just the once. It grew in the edge of arable field. It seems to be overlooked but almost certainly not vulnerable in the country.

In Poland *P. nitidum* is rather rare species but its current distribution of is unknown. It occurs in lowland and lower part of mountains. This moss grows mainly on arable fields, stubble fields, waysides etc. In the Beskid Mts. it is known from scattered localities (Stebel et Stebel 1998; Stebel 2000; Stebel et Ochyra 2000; Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: K-R.

Schistidium dupretii (Ther.) W. A. Weber

In the Czech Republic the moss occurs mostly in boulders, rocks or artificial surfaces (concrete, bridges, etc.). It is one of the most often species of genus *Schistidium* in the country (Kučera in litt.)

In Poland detailed distribution of this species is unknown.

Threat categories: **Eu**: NT; **Cz**: K; **PL**: NT; **C**: NT.

Schistidium papillosum Culm.

The occurrence of the species is not precise know because it was not distinguished from *S. strictum* or other species of the genus in the past (Kučera in litt). In the Czech part of the studied area it was found in only locality, where grew on the concrete.

In Poland detailed distribution of this species is unknown.

Threat categories: **Eu**: I; **Cz**: NT; **PL**: NT; **C**: K-R.

S. rivulare (Brid.) Podp.

The precise distribution of the species is not known because it was confused with other species of the genus, mainly *S. apocarpum* (Kučera in litt.). In the Czech part of the studied area it has not been recently found.

In Poland detailed distribution of this species is unknown.

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: R.

S. trichodon (Brid.) Poelt

The species grows mostly in moist calcareous rocks in the mountain areas (Kučera in litt.). It has not been recorded in the Czech part of the area.

In Poland detailed distribution of this species is unknown.

Threat categories: **Eu**: I; **Cz**: E; **PL**: NT; **C**: R.

Sphagnum contortum Schultz

The species has not been recoded in the Czech part of the studied area.

In Poland *S. contortum* grows mainly in N and SE part of the country (Melosik 2000). In the Beskid Mts. it is known from several localities, situated mainly on E part of this area.

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: Ex.

Sphagnum papillosum Lindb.

The species has not been recoded in the Czech part of the studied area.

In Poland this species grows on peat bog mainly in W part of the country. In Beskid mountains ranges it is known from scattered localities (Stebel et Stebel 1998).

Threat categories: **Eu**: NT; **Cz**: NT; **PL**: V; **C**: R.

Sphagnum subnitens Russow et Warnst.

The species has not been recoded in the Czech part of the studied area.

In Poland it is fairly frequent moss, but overwhelming majority of its localities are situated in N part of the country. Current distribution of this moss is unknown.

Threat categories: **Eu**: NT; **Cz**: V; **PL**: NT; **C**: Ex.

Syntrichia latifolia (Bruch ex Hartm.) Huebener

The species has not been recoded in the Czech part of the studied area. However, in the Silesian region the species has been recently found by Duda (specimens are housed in OP) in many localities near Odra river. It always grew on concrete walls and bridges over the river.

In Poland *S. latifolia* grows in scattered localities in lowlands and lower part of mountains, but its current distribution is unknown. In the Upper Silesia region it is almost exclusively found on concrete walls, very rare on bark of deciduous trees (Stebel 1997a, 1999). It is unknown from other ranges of the Beskid Mts.

Threat categories: **Eu**: NT; **Cz**: E; **PL**: I; **C**: K-R.

Syntrichia papillosa (Wils.) Jur.

Epiphytic species with occurrence mainly in lower and middle altitudes. It seems to be scattered in the territory of the Czech Republic. More often occurs in the southern and central part of Moravia and central part of Bohemia. In the past, this moss has not been recorded in

the area Moravskoslezské Beskydy Mts. (cf. Pospíšil 1987). It is recently known from 3 localities in the studied area (Plášek 2000b; Plášek, Kučera et Duda 2000). It always grew at the bark of *Acer pseudoplatanus*.

In Poland, *S. papillosa* occurs mainly on bark of deciduous trees, but sometimes it is found on concrete walls and rocks. Its current distribution is unknown. It is fairly frequent in east part of the Beskid Mts. (Stebel 1999, unpublished data).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: I; **C**: R.

Syntrichia virescens (De Not.) Ochyra

The species was currently found in only place in the studied area. It grew at the bark of old tree (*Acer pseudoplatanus*) together with other mosses, e.g. *S. papillosa* and *Zygodon rupestris*. In the past, this moss has not been recorded in the area Moravskoslezské Beskydy Mts. (cf. Pospíšil 1987).

In Poland, *S. virescens* grows mainly on bark of solitary or wayside deciduous trees, but it is also frequently found on concrete walls. Its current distribution is unknown. In other ranges of the Beskid Mts. it is known from scattered localities (Stebel, unpublished data).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: I; **C**: R.

Tomentypnum nitens (Hedw.) Loeske

The species has not been recoded in the Czech part of the studied area.

In Poland *T. nitens* grows mainly on lowlands, rarely in the mountains, but like most of other paludicolous mosses, a lot of its localities does not exist now (Ochyra et al. 1985c). In other ranges of the Beskid Mts. it grows in scattered localities (Stebel 1999 and unpublished data; Stebel et Ochyra 2000).

Threat categories: **Eu**: NT; **Cz**: V; **PL**: V; **C**: Ex.

Ulota bruchii Hornsch. ex Brid.

In the past the species has not been recoded in the Czech part of the studied area (cf. Vondráček 1994). It is recently known from 2 localities, where it grew on bark of maple trees.

In Poland *U. bruchii* was reported from many localities, but its current distribution is unknown.

Threat categories: **Eu**: NT; **Cz**: NT; **PL**: V; **C**: R.

U. coarctata (P. Beauv.) Hammar

The species has not currently been recoded in the Czech part of the studied area. However, in Radhošťské Beskydy Mts. the species was found in begin of the 20th century in 2 localities (cf. Vondráček 1994).

In Poland the situation of this moss is similar to *U. bruchii*.

Threat categories: **Eu**: RT; **Cz**: E; **PL**: V; **C**: Ex.

U. crispa (Hedw.) Brid.

In the past, this moss was observed in 1958 by J. Jedlička in Hluchová stream valley near loc. Filipka. Even after an extensive research, it was not possible to confirm the presence of the species in the area.

In Poland the situation of this species is similar to *U. bruchii*.

Threat categories: **Eu**: NT; **Cz**: NT; **PL**: V; **C**: K-(Ex).

Weissia squarrosa (Nees et Hornsch.) Müll. Hal.

First finding of the moss in the Czech part of the mountain range. In the wider region

of NE Moravia this rare species are known only from tree localities. First published locality comes from vicinity of Opava town (Hein 1874) but herbarium specimen of the finding does not exist. The first current specimen, collected in 1998 by V. Plášek, grew on the open soil in Trubiska valley, distr. Vsetín, (cf. Anonymus 1999a). In the studied area the species was found in the similar habitat (leg. V. Plášek, 2001, OP), where it grew together with *W. controversa*. At the time the precise distribution of the moss in the Czech Republic is not known. The terrestrial moss is classified as the endangered species in the country (Váňa 1995a). V. Pospíšil even placed it among extinct species in Moravia (Pospíšil 1988).

In Poland it is a very rare species. Its current distribution is unknown.

Threat categories: **Eu**: R; **Cz**: E; **PL**: R; **C**: R.

Zygodon rupestris Schimp. Ex Lor.

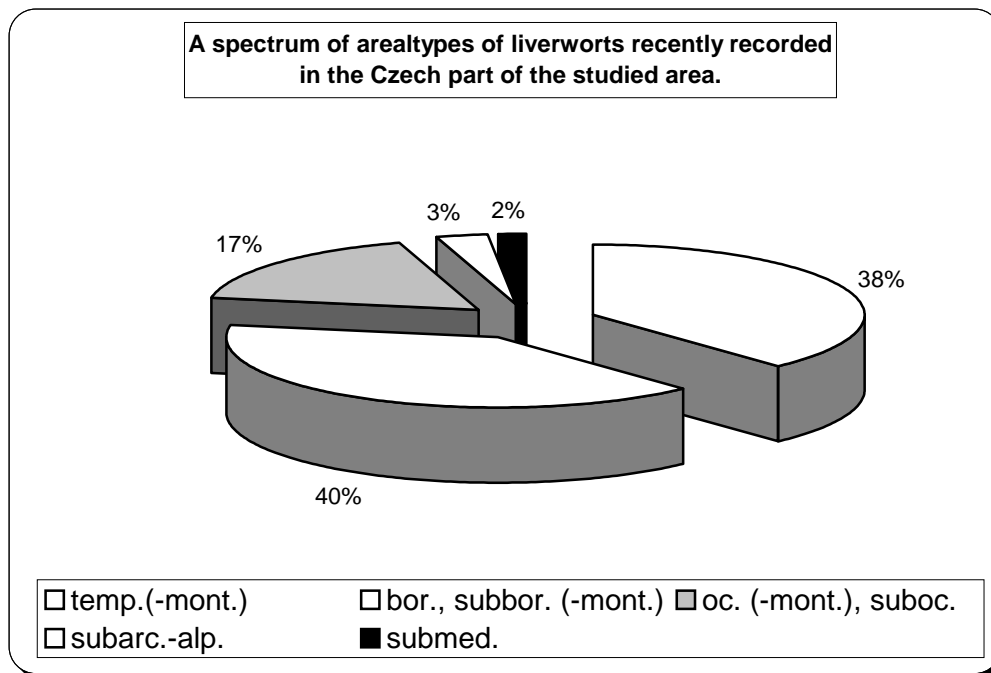
There are about 10 known localities of the species in the Czech Republic (cf. Vondráček 1994; Anonymus 1997a; Hradílek in litt.). In the past, it has not been recorded in the studied area. In two current localities, observed in 1999 by V. Plášek (Anonymus 1999b; Plášek, ed. 2000b), the species always grew on the bark of *Acer pseudoplatanus* together with other mosses, e.g. *Syntrichia papillosa* a *S. virescens*. These places seem to be the most eastern known localities in the Czech Republic.

In Poland the whole genus *Zygodon* needs a revision. In Polish part of Czantoria range this species is unknown, but it occurs in scattered localities in other ranges of the Beskid Mts. (Stebel, unpublished data).

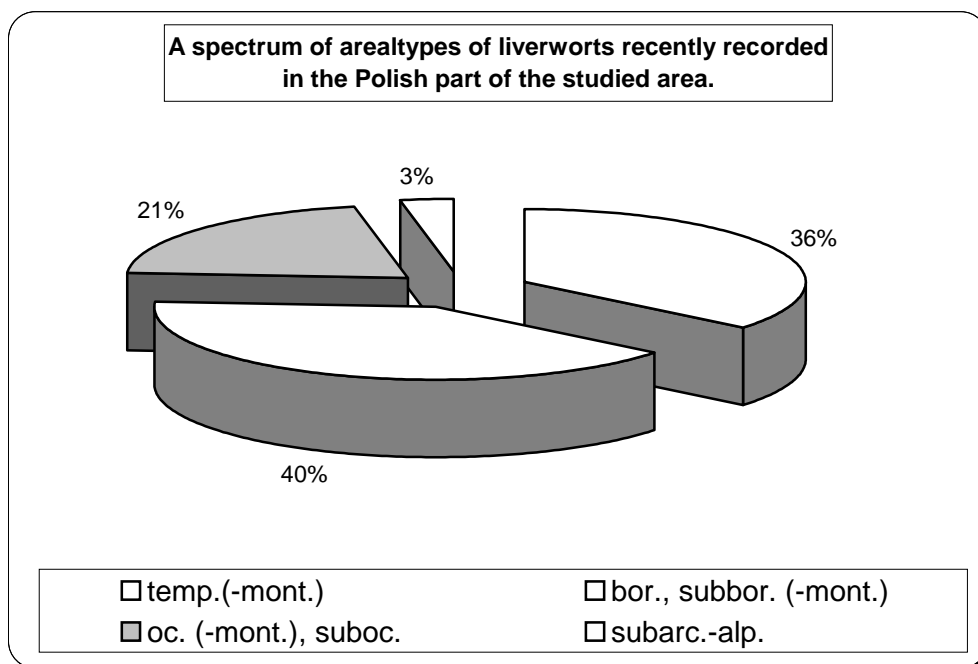
Threat categories: **Eu**: NT; **Cz**: E; **PL**: NT; **C**: R-V.

A comparison of the bryophytes areatypes recently recorded in the Czech and Polish part of studied area

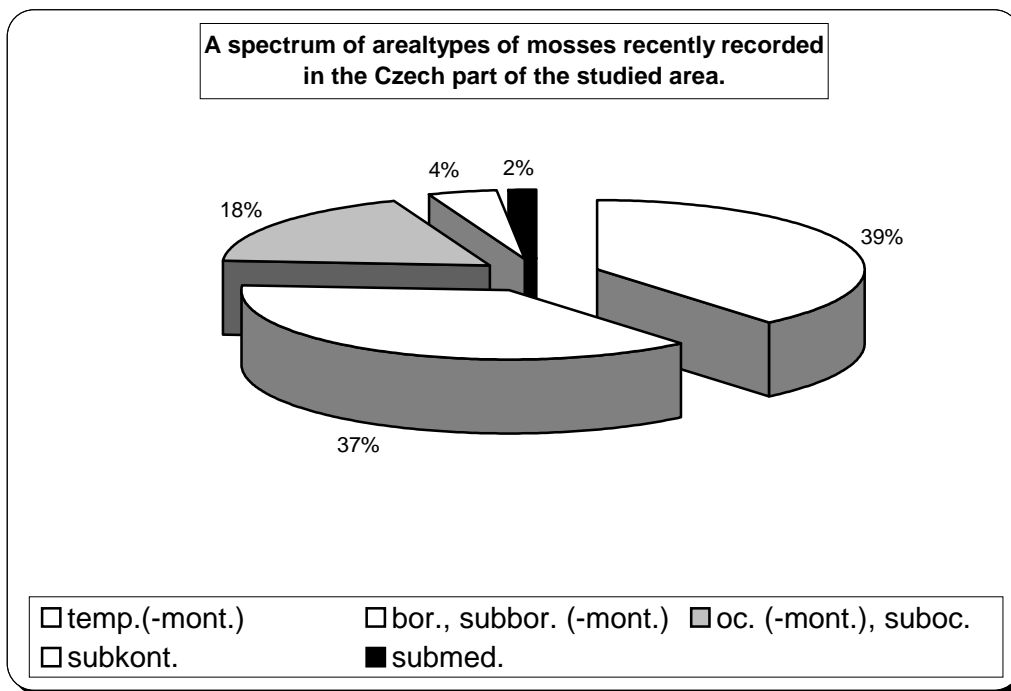
The graphs present a spectrum of the bryophytes areatypes (*sensu* Duell 1983, 1984 et 1985) in both of Czech and Polish part of the studied area. Only recently recorded data have been analyzed to making the graphs. The results show the spectrum of presented areatypes of liverworts or mosses is very similar in both of Czech and Polish part of the area (see below).



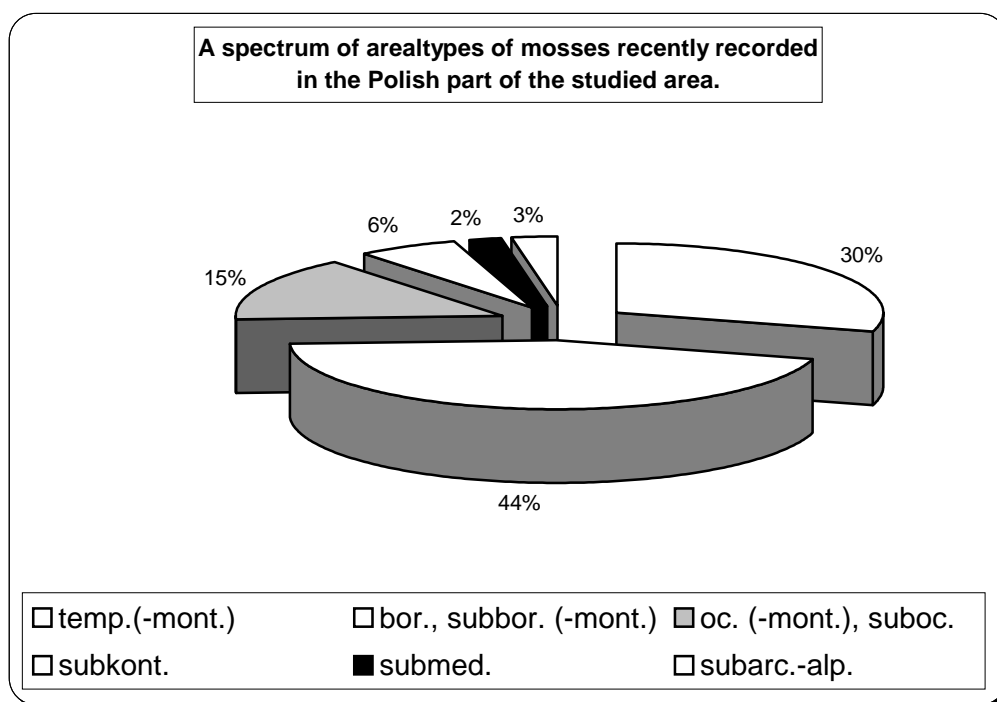
Graph 1. A spectrum of areatypes of liverworts recently recorded in the Czech part of the studied area.



Graph 2. A spectrum of areatypes of liverworts recently recorded in the Polish part of the studied area.



Graph 3. A spectrum of areatypes of mosses recently recorded in the Czech part of the studied area.



Graph 4. A spectrum of areatypes of mosses recently recorded in the Polish part of the studied area.

Acknowledgement

Authors would like to thank all colleagues who extended them the bryofloristic data or help them with the determination. It was mainly J. Duda, J. Kučera, Z. Hradílek, B. Buryová, I. Jansová (Vacínová), Z. Platošová, J. Váňa and I. Novotný. Great thank belongs to Leon Sverdlin for English corrections.

References

- A n o n y m u s (1992): Zajímavé nálezy.- Bryonora, Praha, 10:15-16.
- A n o n y m u s (1996): Zajímavé nálezy.- Bryonora, Praha, 18:23-24.
- A n o n y m u s (1997a): Zajímavé nálezy.- Bryonora, Praha, 19:16-17.
- A n o n y m u s (1997b): Zajímavé nálezy.- Bryonora, Praha, 20:22.
- A n o n y m u s (1998): Zajímavé nálezy.- Bryonora, Praha, 21:13-14.
- A n o n y m u s (1999a): Zajímavé nálezy.- Bryonora, Praha, 23:9-10.
- A n o n y m u s (1999b): Zajímavé nálezy.- Bryonora, Praha, 24:29.
- A n o n y m u s (2000): Zajímavé nálezy.- Bryonora, Praha, 25:17-18.
- B e d n a r e k – O c h y r a, H. (1995): Rodzaj *Racomitrium* (*Musci*, *Grimmiaceae*) w Polsce: taksonomia, ekologia i fitogeografia.– *Fragm. Flor. Geobot. Series Polonica* 2: 6–307.
- B e d n a r e k – O c h y r a, H., O c h y r a, R., S z m a j d a, P. (1991a): M. 268. *Racomitrium heterostichum* (Hedw.) Brid. In: O c h y r a, R. et S z m a j d a, P. (eds), Atlas of the geographical distribution of spore plants in Poland. Ser. V. Mosses (*Musci*) 6: 15–20 + 1 map. W. Szafer Institute of Botany of the Polish Academy of Sciences et Adam Mickiewicz Univeristy, Kraków-Poznań.
- (1991b): M. 270. *Racomitrium microcarpon* (Hedw.) Brid. In: O c h y r a, R. et S z m a j d a, P. (eds), Atlas of the geographical distribution of spore plants in Poland. Ser. V. Mosses (*Musci*) 6: 25–30 + 1 map. W. Szafer Institute of Botany of the Polish Academy of Sciences et Adam Mickiewicz Univeristy, Kraków-Poznań.
- (1991c): M. 665. *Racomitrium sudeticum* (Funck) Bruch et Schimp. In: O c h y r a, R. et S z m a j d a, P. (eds), Atlas of the geographical distribution of spore plants in Poland. Ser. V. Mosses (*Musci*) 6: 41–46 + 1 map. W. Szafer Institute of Botany of the Polish Academy of Sciences et Adam Mickiewicz Univeristy, Kraków-Poznań.
- (1994): M. 460. *Anacamptodon splachnoides* (Brid.) Brid. In: O c h y r a, R. et S z m a j d a, P. (eds), Atlas of the geographical distribution of mosses in Poland 9: 37–40 + 1 map. W. Szafer Institute of Botany of the Polish Academy of Sciences, Kraków.
- B i e l c z y k, U. (1984): Zbiorowiska porostów epifitycznych w Beskidach Zachodnich.– *Fragm. Flor. Geobot.* 30(1): 1–89.
- B u r y o v á, B. (in litt.): Rozšíření druhů rodu *Philonotis* v České republice. (Diplomová práce). PŘF UK, Katedra botaniky, 1996, 86 + 37 pp. (+7 map), Praha.
- D u e l l, R. (1983): Distribution of European and Macaronesian Liverworts (Hepaticophytina).- *Bryologische Beitrage*, Band 2., Duisburg, 115 p.
- (1984): Distribution of European and Macaronesian Mosses (Bryophytina). Part I.- *Bryologische Beitrage*, Band 4., Duisburg, 109 p.
- (1985): Distribution of European and Macaronesian Mosses (Bryophytina). Part II.- *Bryologische Beitrage*, Band 4., Duisburg, 121 p.
- D u e l l, R. et M e i n u n g e r, L. (1989): Deutschlands Moose. Die Verbreitung der deutschen Moose in der BR Deutschland und in der DDR, ihre Höhenverbreitung, ihre Arealtypen, sowie Angaben zum Rückgang der Arten. 1 Teil. pp. 368. IDH Verlag, Bad Münstereifel - Ohlerath.
- D u d a, J. (in litt.): Navrhovaný CHPV Rohovec – Mechorosty (*Bryophyta*). (Zpráva o výzkumu). Muzea Beskyd, 1991, Frýdek-Místek.
- (1997): *Callicladium haldanianum* (Grev.) Crum. v České republice a ve Slovenské republice.- *Čas. Slez. Muz. Opava* (A), 46:129-133.
- (2000): Epifytické mechorosty na stromech podél silnic a veřejných cest v Beskydách.- *Čas. Slez. Muz. Opava* (A), 49:137-142.
- D u d a, J., H e r b e n, T. et N o v o t n ý, I. (1985): Strategies in bryofloristic research: a simulation study using real data.- *Abstracta Botanica*, 9/2: 19-31.
- D u d a, J. et V á ň a, J.: Rozšíření játrovek Československu. IV (1969); VIII (1970); IX (1971a); X (1971b); XI (1972a); XII (1972b); XIV (1973); XV (1974); XVIII (1975); XX (1976); XXV (1979); XXXII (1981); XXXIII (1982a); XXXIV (1982b); XXXVIII (1983); XXXIX (1984); LIV (1989); LIX (1990); LXIII (1992).- *Čas. Slez. Muz. Opava* (A).
- F o j c i k, B. et S t e b e l, A. (2001): Struktura ekologiczna i przestrzenna brioflory miasta Katowice. – *Materiały Opracowania* 5: 1-128. Centrum Dziedzictwa Przyrody Górnego Śląska, Katowice.
- F r a n k l o v á, H. (1999): Distribution of the species of *Dicranum* Hedw. (*Musci*, *Dicranaceae*) in the Czech Republic – V.- *Časopis Národního muzea, ř. přírodovědecká*, Praha, 168:103-115.
- H a u s b r a n d t, L. (1949): Gatunki rodzaju *Scapania* Dum w Polsce i krajach ościennych. *Mat. do Fizj.* Kr. 16 s. 1.
- H e i n, T. (1874): Beiträge zur Laubmoosflora der Troppauer Kreises.- *Jahresber. Staatsoberrealschule Troppau Schulj.* 1873-74, Troppau (Opava).
- H o l e k s a, J. et W i l c z e k, Z. (1992): Charakterystyka fitosocjologiczna lasów jaworowo-jesionowych w reglu dolnym Beskidu Śląskiego. - *Acta Biol. Siles.* 21(38): 74-80.
- H r a d í l e k, Z. (1994): Klíč na určování zástupců rodu *Fissidens* (sekke *Fissidens* a *Pycnothallia*) v ČR a SR.-

- Bryonora, Praha, 14:7-11.
- , ed. (1998): Seznam mechorostů nalezených během 10. bryologicko-lichenologických dnů v Bílých Karpatech.- Bryonora, Praha, 21:3-6.
- Jędrzejko, K., Żarnowiec, J., Stebel, A. et Klama, H. (1997a): Musci Macroregioni Meridionali Poloniae Exsiccati. Fasc. XXII, No. 576–600. Śląska Akademia Medyczna w Katowicach, Katowice.
- (1997b): Musci Macroregioni Meridionali Poloniae Exsiccati. Fasc. XXIII, No. 601–625. Śląska Akademia Medyczna w Katowicach, Katowice.
- Kafková, O. (in litt.): Rozšíření druhů rodu *Neckera* Hedw. v Československu. (Diplomová práce). PřF UK Katedra botaniky, 1988, 90 pp.; Praha.
- Karczmarz, K. (1975): Studia taksonomiczne nad gatunkami *Bryum* w Polsce. Sect. *Erythrocarpa* Kindb. i sect. *Anaglyphodon* Philibert. Ann. Univ. M. Curie-Skłodowska Sect. C 30(10): 143-164.
- Karczmarz, K. et Żarnowiec, J. (1989a): Studies on propaguliferous species of *Pohlia* section *Pohliella* in Poland. Taxonomy and distribution. Ann. Univ. M. Curie-Skłodowska Sect. C 44(9): 143-164.
- (1989b): *Barbula ferruginascens* Stirt. (Musci: Pottiaceae) in Poland. Ann. Univ. M. Curie-Skłodowska Sect. C 44(10): 165-171.
- Klama, H. (1996): Wątrobowce (Hepaticae) Beskidu Żywiecko-Orawskiego (Karpaty Zachodnie). - Monogr. Bot. 79: 1-144.
- Klama, H., Jędrzejko, K. et Żarnowiec, J. (1987): *Hepaticae* Macroregioni Meridionali Poloniae Exsiccati. Fasc. VI, No. 76-90. Śląska Akademia Medyczna w Katowicach, Katowice–Sosnowiec.
- (1988): *Hepaticae* Macroregioni Meridionali Poloniae Exsiccati. Fasc. VI, No. 91-105. Śląska Akademia Medyczna w Katowicach, Katowice–Sosnowiec.
- Koczwara, M. (1930): Szata roślinna Beskidu Ustrońskiego. - Wydawnictwa Muzeum Śląskiego w Katowicach. Dział III - Nr 1. pp. 66. Katowice.
- Kotlaba, F. (2000): Potřeba latinské zkratky pro “zapsal” v přírodních vědách.- Bryonora, Praha, 26:12-13.
- , et al. (1995): Červená kniha ohrožených a vzácných druhov rastlin a živočíchov SR a ČR – IV.-Příroda, Bratislava.
- Kučera, J. (1998): Klíč k určování českých zástupců rodu *Didymodon* Hedw. s poznámkami k rozšíření a ekologii jednotlivých zástupců.- Bryonora, Praha, 22:2-8.
- (2000): Illustrierter Bestimmungsschlüssel zu den mitteleuropäischen Arten der Gattung *Didymodon*.- Meylania, Schweiz, N°19, 48 p.
- Kulesza, W. (1922): Przyczynek do znajomości wątrobowców na ziemiach polskich. Wątrobowce zebrane w początkach grudnia 1914 r. pod Jabłonkowem na Śląsku Cieszyńskim.- Kosmos 47: 274-277.
- Limpriecht, K. G. (1873): Nachträge zu J. Milde: Bryologia Silesiaca, 1869.- Jahresber. Schles. Ges. Vaterl. Cult. 50: 124–140.
- (1876): Lebermoose. W: F. Cohn (ed.) Kryptogamen-Flora von Schlesien. 1, pp. 225–352. J. U. Kern's Verlag (Max Müller), Breslau.
- (1895): Die Laubmoose Deutschlands, Oesterreichs und der Schweiz.- Rabenhorst's Krypt. Flora, IV. Band, Leipzig, p. 1-853.
- Lisowski, S., Kornas, J. (1966): Mchy Gorców. - Fragm. Flor. Geobot. 12(1): 41–111.
- Meixnerová, M. (in litt.): Rozšíření druhů rodu *Campylium* Mitt. V Československu. (Diplomová práce). PřF UK, Katedra botaniky, 1990, 73 pp., Praha.
- Melosi, I. (2000): Distribution of species of the *Subsecunda* section of *Sphagnum* genus in Poland. In: Krzakowa M., Melosi, I. (eds.): The variability in Polish populations of *Sphagnum* taxa (*Subsecunda* section), according to morphological, anatomical and biochemical traits. pp. 27-47, Poznań.
- Melosi, I. et Stebel, A. (2000): An unusual form of peatmoss in the *Subsecunda* section, *Sphagnum* genus. In: Krzakowa, M. et Melosi, I. The variability in Polish populations of *Sphagnum* taxa (*Subsecunda* section), according to morphological, anatomical and biochemical traits. ss. 111-121. Adam Mickiewicz University, Department of Genetics, Poznań.
- Mickiewicz, J. (1965): Udział mszaków w epifitycznych zespołach buka. - Monogr. Bot. 19: 3-83.
- Mierzewska, M. (1994): Wątrobowce Gorców. - Fragm. Flor. Geobot. Ser. Polonica 1: 235-346.
- (1998): Nowe stanowisko *Hookaria lucens* (Musci, Hookeriaceae) w Beskidzie Śląskim (Karpaty Zachodnie). - Fragm. Flor. Geobot. Ser. Polonica 5: 311-312.
- (2001): Materiały do geograficznego rozmieszczenia wątrobowców (Hepaticae) w Polsce. 1. Wątrobowce Magurskiego Parku Narodowego. - Fragm. Flor. Geobot. Polonica 8: 257-261.
- Milde, J. (1852): Zur Flora von Ustron bei Teschen.– Bot. Zeitung 10(41): 715-717.
- (1857): Übersicht der in Schlesien bisher beobachteten Laubmoose. - Jahresber. Schles. Ges. Vaterl. Cult., Breslau, 34: 64-77.
- (1858): Mitteilungen über die schlesische Moss-Flora. - Jahresber. Schles. Ges. Vaterl. Cult., Breslau, 36: 70-76.
- (1961): Uebersicht über die schlesische Laubmoos- Flora.- Bot. Ztg., Mohl Schlehtedal, Liepzig, 19: 1-48.

- (1869): *Bryologia Silesiaca*, Laubmoos-Flora von Nord- und Mittel-Deutschland, unter besonderer Berücksichtigung Schlesiens und Hinzunahme der Floren von Jütland, Holland, der Rheinpfalz, von Baden, Böhmen, Mähren und der Umgegend von München. ss. ix + 410. Arthur Felix, Leipzig.
- Ochrya, R. (1992): Czerwona lista mechów zagrożonych w Polsce.– In: Zarzycki, K., Wojewoda, W. et Heinrich, Z. (red.), *Lista roślin zagrożonych w Polsce*. Wyd. 2. ss. 79–85. Instytut Botaniki im. W. Szafera, Polska Akademia Nauk, Kraków.
- Ochrya, R., Bednarek – Ochrya, H. et Szmajd a, P. (1990a): M. 598. *Plagiothecium undulatum* (Hedw.) B. S. G. In: Ochrya, R. et Szmajd a, P. (eds), *Atlas of the geographical distribution of spore plants in Poland. Series V. Mosses (Musci)*. 5, ss. 41–45 + 1 map. W. Szafer Institute of Botany of Polish Academy of Sciences et Adam Mickiewicz University, Kraków–Poznań.
- (1990b): M. 640. *Diphyscium foliosum* (Hedw.) Mohr. In: Ochrya, R. et Szmajd a, P. (eds.), *Atlas of the geographical distribution of spore plants in Poland. Series V. Mosses (Musci)*. 5, ss. 47–52 + 1 map. W. Szafer Institute of Botany of Polish Academy of Sciences et Adam Mickiewicz University, Kraków–Poznań.
- Ochrya, R., Rusińska, A. et Szmajd a, P. (1985a): M. 456. *Hookeria lucens* (Hedw.) Sm. In: Tobolewski, Z. et Wojterski, T. (eds.), *Atlas of the geographical distribution of spore plants in Poland. Series V. Mosses (Musci)*. 2, ss. 21–22 + 1 map. Państwowe Wydawnictwo Naukowe, Warszawa–Poznań.
- (1985b): M. 626. *Ctenidium molluscum* (Hedw.) Mitt. In: Tobolewski, Z. et Wojterski, T. (eds.), *Atlas of the geographical distribution of spore plants in Poland. Series V. Mosses (Musci)*. 2, ss. 29–33 + 1 map. Państwowe Wydawnictwo Naukowe, Warszawa–Poznań.
- Ochrya, R., Szmajd a, P., Bednarek – Ochrya, H. (1992): M. 635. *Hylocomiastrum pyrenaicum* (Spruce) Fleisch. In: Ochrya, R. et Szmajd a, P. (eds), *Atlas of the geographical distribution of mosses in Poland 8*: 61–65 + 1 map. W. Szafer Institute of Botany of the Polish Academy of Sciences et Adam Mickiewicz University, Kraków – Poznań.
- Ochrya, R., Szmajd a, P., Bednarek, H. et Bocheński, W. (1988a): M. 524. *Tomentypnum nitens* (Hedw.) Limpr. In: Tobolewski, Z. et Wojterski, T. (eds.), *Atlas of the geographical distribution of spore plants in Poland. Series V. Mosses (Musci)*. 3, pp. 53–61 + 1 map. Państwowe Wydawnictwo Naukowe, Warszawa – Poznań.
- Ochrya, R., Szmajd a, P., Bocheński, W. et Karczmarz, K. (1988b): M. 451. *Neckera crispa* Hedw. In: Tobolewski, Z. et Wojterski, T. (eds.), *Atlas of the geographical distribution of spore plants in Poland. Series V. Mosses (Musci)*. 4, pp. 27–31 + 1 map. Państwowe Wydawnictwo Naukowe, Warszawa – Poznań.
- (1988c): M. 453. *Neckera webbiana* (Mont.) Duell. In: Tobolewski, Z. et Wojterski, T. (eds.), *Atlas of the geographical distribution of spore plants in Poland. Series V. Mosses (Musci)*. 4, pp. 41–43 + 1 map. Państwowe Wydawnictwo Naukowe, Warszawa – Poznań.
- Parusel, J., B. (2001): *Bazzanio-Piceetum* Br.-Bl. et Siss. 1939 – nowy i zagrożony zespół leśny w Paśmie Beskidu Śląskiego (Górny Śląsk) - *Acta Facultatis Rerum Naturalium Universitatis Ostraviensis* 200, *Biologia - Ekologia* 8:169-172.
- Pilous, Z. (1937): Rozšíření mechu *Hookeria lucens* v Československu.- *Čas. Nár. Mus., Praha, sect. natur.*, 111: 157-159.
- (1971): *Sphagnidae* – Mechy rašeliníkové.- *Flora ČSSR, řada C (bryologická)*, svazek 1, Academia, Praha, 412 p.
- Plášek, V. (1997a): Vidnavský kaolínový důl - zajímavá bryologická lokalita.- *Čas. Slez. Muz. Opava (A)*, 46:50-52.
- (1997b): The occurrence of the gemmae in liverwort *Cephalozia bicuspidata* (L.) Dum.- *Čas. Slez. Muz. Opava (A)*, 46:197-199.
- , ed. (1998): Seznam mechorostů zaznamenaných během jarního bryologicko-lichenologického setkání – Huslenky 1998.- *Bryonora, Praha*, 22:9-12.
- (2000a): Ohrožené a vzácné mechorosty Slezských Beskyd - I.- *Acta Facultatis Rerum Naturalium, Universitas Ostraviensis*, 6-7:7-15.
- , ed. (2000b): Seznam mechorostů zaznamenaných v průběhu bryo-lichenologických dnů ve Slezských Beskydech.- *Bryonora, Praha*, 25:10-13.
- (2001a): Příspěvek k rozšíření mechu *Buxbaumia viridis* v Moravskoslezských Beskydech.- *Čas. Slez. Muz. Opava (A)*, 50(supl.): 1-3.
- (2001b): *Dicranoweisia cirrata* (Hedw.) Lindb. ex Milde (*Bryophyta*) in the Czech Republic – distribution and ecology.- *Čas. Slez. Muz. Opava (A)*, 50: 31-41.
- Plášek, V., Kučera J., et Duda, J. (2000): The bryoflora of the Hlučová valley in Slezské Beskydy Mts. (Czech Republic).- *Čas. Slez. Muz. Opava (A)*, 49:21-27.
- Plášek, V. et Vácínová, I. (2001): Příspěvek k poznání ekologie a populační biologie mechu *Buxbaumia viridis*.- *Čas. Slez. Muz. Opava (A)*, 50(supl.): 11-19.

- P o d p ě r a, J. (1928): Zajímavý mechový nález na Moravě.- Příroda 21, příloha 23, Praha.
- (1973): Bryum generis monographiae prodromus I., II.- Academia, Praha, 470 p.
- P o s p í š í l, V. (1976): *Plagiothecium undulatum* (Hedw.) B.S.G., Verbreitung und Beziehung zu den Klimagebieten der Tschechoslowakei.- Acta Musei Moraviae, Brno, 61:115-132.
- (1980): Lie Laubmoose *Eurhynchium angustirete* (Broth.) Kop., *E. striatum* (Hedw.) Schimp. und *E. pulchellum* (Hedw.) Jenn. in der Tschechoslowakei.- Acta Musei Moraviae, Brno, 65:71-106.
- (1981): Die Laubmoose *Mnium spinulosum* B.S.G., *M. spinosum* (Voit) Schwaegr. und *M. hornum* Hedw. in der Tschechoslowakei.- Acta Musei Moraviae, Brno, 66:51-88.
- (1985): Die Laubmoose *Pterigynandrum filiforme* Hedw. und *Platygyrium repens* (Brid.) B.S.G., mögliche Indikatoren der Luftverschmutzung, in der Tschechoslowakei.- Acta Musei Moraviae, Brno, 70:115-145.
- (1987): Verbreitung, Ökologie und Grade der Gefährdung der Laubmoose *Tortula virescens* (De Not.) De Not., *T. papillosa* Wils. Und *T. latifolia* Bruch ex Hartm. in der Tschechoslowakei.- Acta Musei Moraviae, Brno, 72:107-134.
- (1988): Die Laubmoose Mährens, ihr Häufigkeits- und Gefährdungsgrad.- Acta Musei Moraviae, Brno, 73:123-148.
- R e i c h a r d t, H. W. (1858): Gibt folgende Mitteilungen.-Verh. Zoo-Bot. Ges. Wien, Band VIII., p.58-62.
- R e j m e n t – G r o c h o w s k a, I. (1950): Czynniki ekologiczne i rozmieszczenie wątrobowców (*Hepaticae*) Beskidu Śląskiego. Prace Biol. Śląskie 2: 1-71.
- R i v o l a, M. (1975): Stručný přehled čs. Druhů rodu *Riccia*.- Zpr. Čs. Bot. Společ., Praha, 10:1-10.
- R u s i ň s k a, A. (1981): Mchy Pojezierza Kartuskiego
- R u s i ň s k a, A. (1995): New locality of *Campylopus flexuosus* (*Musci*, *Dicranaceae*) in West Pomerania and a review of its distribution in Poland. Fragm. Flor. Geobot. 40(1): 305-309.
- S c h u m a c k e r, R. et M a r t i n y, P. (1995): Threatened bryophytes in Europe including Macaronesia. In: Red Data Book of European Bryophytes. pp. 31-193. European Committee for the Conservation of Bryophytes, Trondheim.
- S ö d e r s t r ö m, L. (1992): Invasions and range expansions and contractions of bryophytes. – In: B a t e s, J. W. et F a r m e r, A. M. (eds.), Bryophytes and Lichens in changing environment. pp.131-158. Oxford University Press.
- S o l d á n, Z. (1991): Rozšíření mechů *Brachydontium trichodes* (Web.) Milde a *Campylostelium saxicola* (Web. et Mohr) B.S.G. v Československu.- Zpr. Čs. Bot. Společ., Praha, 26:69-77.
- (1992): *Buxbaumia viridis* – a candidate of “Red Lists” of Bryophytes.- Bryonora, Praha, 9:40-44.
- , ed. (1996): Seznam mechorostů sebraných na Jihlavsku během 9. bryo-lichenologických dnů.- Bryonora, Praha, 18:20-22.
- S t e b e l, A. (1997a): Mszaki Rybnickiego Okręgu Węglowego. – Fragm. Flor. Geobot. Ser. Polonica 4: 121–233.
- (1997b): Bryophytes expanding in natural habitats in the Rybnik Coal District (S Poland) – Biol. Bull. Poznań, 34: 12-13.
- (1999): Nowe stanowiska rzadkich i zagrożonych mchów w Beskidach Zachodnich i na Pogórze Zachodniobeskidzkim (Karpaty Zachodnie). - Fragm. Flor. Geobot. Ser. Polonica 6: 203-210.
- (2000): Materiały do flory mchów masywu Babiej Góry (Karpaty Zachodnie). – Parki Narodowe i Rezerваты Przyrody 19(3): 43-54.
- S t e b e l, A. et O c h y r a, R. (2000): Flora mchów Magurskiego Parku Narodowego w Beskidzie Niskim (Karpaty Zachodnie). – Fragm. Flor. Geobot. Polonica 7: 229-263.
- S t e b e l, A. et P l á š e k, V. (2001): *Dicranoweisia cirrata* and *Orthodicranum tauricum* (*Musci*,) in the Upper Silesia (Poland and Czech Republic) – distribution and ecology.- Natura Silesiae Superioris, Katowice 6, *in press*.
- S t e b e l, A. et S t e b e l, A., M. (1998): Materiały do brioflory Beskidu Małego i północnej części Kotliny Żywieckiej (Karpaty Zachodnie). – Fragm. Flor. Geobot. Ser. Polonica 5: 217–236.
- S z a f r a n, B. (1961): Mchy (*Musci*). Flora polska. Rośliny zarodnikowe Polski i ziem ościennych. T. II. p. 1–405. PWN, Warszawa.
- (1965): Mchy Beskidu Śląskiego i Małego. - Fragm. Flor. Geobot. 11(4): 607-630.
- S z m a j d a, P., B e d n a r e k – O c h y r a, H. et O c h y r a, R. (1991): M 639. *Buxbaumia viridis* (DC.) Moug. et Nestl. In: O c h y r a, R. et S z m a j d a, P. (eds.), Atlas of the geographical distribution of spore plants in Poland. Series V. Mosses (*Musci*). 7, pp. 47–52 + 1 map. W. Szafer Institute of Botany, Polish Academy of Sciences and Adam Mickiewicz University, Kraków – Poznań.
- S z w e y k o w s k i, J. (1958): Prodrumus Florae Hepaticorum Poloniae. Pr. Komis. Biol. Pozn. Tow. Przyj. Nauk 19: 1–596.
- (1968): Wątrobowce (*Hepaticae*). In: C z u b i ŋ s k i, Z. et S z w e y k o w s k i, J. (eds.), Atlas of the geographical distribution of spore plants in Poland. Series IV. 5. Kom. Bot. Polskiej Akademii Nauk et Pozn. Tow. Przyj. Nauk, Wyd. Mat.-Przyr., Komis. Biol., Poznań.

- (1969): Wątrobowce (*Hepaticae*). In: S z w e y k o w s k i, J. et W o j t e r s k i, T. (eds.), Atlas of the geographical distribution of spore plants in Poland. Series IV. 6. Kom. Bot. Polskiej Akademii Nauk et Pozn. Tow. Przyj. Nauk, Wyd. Mat.-Przyr., Komis. Biol., Poznań.
- (1971): Wątrobowce (*Hepaticae*). In: S z w e y k o w s k i, J. et W o j t e r s k i, T. (eds.), Atlas of the geographical distribution of spore plants in Poland. Series IV. 7. Kom. Bot. Polskiej Akademii Nauk et Pozn. Tow. Przyj. Nauk, Wyd. Mat.-Przyr., Komis. Biol., Poznań.
- (1992): Czerwona lista wątrobowców zagrożonych w Polsce. In: Z a r z y c k i, K., W o j e w o d a, W. et H e i n r i c h, Z. (eds.), Lista roślin zagrożonych w Polsce. Wyd. 2, pp. 75–78. Instytut Botaniki im. W. Szafera, Polska Akademia Nauk, Kraków.
- S z w e y k o w s k i, J. et K o ź l i c k a, M. (1974): Wątrobowce (*Hepaticae*). In: S z w e y k o w s k i, J. et W o j t e r s k i, T. (eds.), Atlas of the geographical distribution of spore-plants in Poland. Series IV. 8. Pol. Akad. Nauk, Kom. Bot. et Inst. Bot., Warszawa-Poznań.
- (1977): Wątrobowce (*Hepaticae*). In: S z w e y k o w s k i, J. et W o j t e r s k i, T. (eds.), Atlas of the geographical distribution of spore-plants in Poland. Series IV. 9. Pol. Akad. Nauk, Kom. Bot. et Inst. Bot., Warszawa-Poznań, PWN.
- (1980): Wątrobowce (*Hepaticae*). In: S z w e y k o w s k i, J. et W o j t e r s k i, T. (eds.), Atlas of the geographical distribution of spore-plants in Poland. Series IV. 10. Pol. Akad. Nauk, Kom. Bot. et Inst. Bot., Warszawa-Poznań, PWN.
- W i l c z e k, Z. (1995): Zespoły leśne Beskidu Śląskiego i zachodniej części Beskidu Żywieckiego na tle zbiorowisk leśnych Karpat zachodnich. - Prace Nauk. Uniw. Śląskiego 1490: 1-129.
- V a l d š t ý n o v á, K. (in litt.): Přírodní poměry a floristický výzkum v údolí potoka Rohovce. (Diplomová práce). PřF OU, Katedra biologie a ekologie, 2001, 76 pp., Ostrava.
- V á ň a, J. (1993): Předběžný seznam ohrožených druhů mechorostů České republiky. - I. Játrovky (*Hepatophyta*) a hlevíky (*Anthocerotophyta*).- Preslia, Praha, 65:193-199.
- (1995): Předběžný seznam ohrožených druhů mechorostů České republiky. - II. Mechy (*Bryophyta*).- Preslia, Praha, 67:173-180.
- (1997): Bryophytes of the Czech Republic - an annotated check-list of species (1).- Novit. Bot. Univ. Carol., Praha, 11:39-89.
- (1998): Bryophytes of the Czech Republic - an annotated check-list of species (2).- Novit. Bot. Univ. Carol., Praha, 12:7-33.
- V ě z d a, A. (1960): Nová lokalita mechu *Anacamptodon splachnoides* (Froel.) Brid. v Československu.- Acta Musei Silesiae, Opava 9:91-94.
- V o n d r á č e k, M. (1993): Revize a rozšíření druhů rodu *Orthotrichum* Hedw. V České a Slovenské republice (*Musci*).- Sborník Západočeského muzea, Plzeň, Příroda, 76 p.
- (1994): Revize a rozšíření druhů rodů *Ulota* Brid. a *Zygodon* Hook. et Tayl. V České a Slovenské republice.- Sborník Západočeského muzea, Plzeň, Příroda, 26 p.
- Ž a r n o w i e c, J. et K l a m a, H. (1996): Mszaki rezerwatu “Szeroka” (Beskid Mały). – Zesz. Nauk. PŁ – Inż. Włókien. i Ochr. Środow. 40(12): 219-224.
- Ž a r n o w i e c, J., J ě d r z e j k o, K. et K l a m a, H. (1986): Musci Macroregioni Meridionali Poloniae Exsiccati. Fasc. IX, No. 251–275. Śląska Akademia Medyczna w Katowicach, Katowice – Sosnowiec.
- (1987): Musci Macroregioni Meridionali Poloniae Exsiccati. Fasc. IX, No. 276–300. Śląska Akademia Medyczna w Katowicach, Katowice – Sosnowiec.
- (1988): Musci Macroregioni Meridionali Poloniae Exsiccati. Fasc. XI, No. 301–325. Śląska Akademia Medyczna w Katowicach, Katowice – Sosnowiec.
- Ž a r n o w i e c, J., J ě d r z e j k o, K., S t e b e l, A. et K l a m a, H. (1997): Musci Macroregioni Meridionali Poloniae Exsiccati. Fasc. XV, No. 401–425. Śląska Akademia Medyczna w Katowicach, Katowice.
- Ž m u d a, A., J. et W i ś n i e w s k i, T. (1930): Bryotheca Polonica. Pars V. No 201-250. Polska Akademia Umiejętności, Kraków.

Bryophytes of the Čantoryjský hřbet range /Czantoria range/ and its foothills (Western Carpathians - Czech Republic, Poland)

V průběhu let 1997 až 2001 probíhal intenzivní bryofloristický výzkum na české i polské části území Slezských Beskyd (resp. Čantoryjského hřbetu a jeho podhůří). Mimo recentní data byly do této studie zahrnuty i údaje o historických sběrech a veškerá dostupná literární data. Celkem bylo zaznamenáno 364 taxonů mechorostů (2 hlevíky; 85 druhů játrovek /+ 1 varieta/ a 273 druhů mechů /+ 3 variety/). Mimo běžných druhů bylo zaznamenáno značné množství druhů vzácných nebo ohrožených (hodnoceno podle

klasifikace ohroženosti v ČR i Polsku). V závěru je okomentován výskyt zajímavých druhů ve studovaném území, popřípadě i z pohledu jejich celkového rozšíření v ČR a Polsku. Autoři také u každého komentovaného druhu navrhli jeho případnou ohroženost, tj. vytvořili lokální bryologický Červený seznam Slezských Beskyd.

Authors' addresses: Vítězslav P l á š e k, Dept. of Botany, Silesian Museum in Opava, Tyršova 1, CZ - 746 46 Opava, the Czech Republic; e-mail: vita.plasek@seznam.cz
Adam S t e b e l, Department of Pharmaceutical Botany, Medical University of Silesia in Katowice, ul. Ostrogórska 30, PL-41-200 Sosnowiec, Poland; e-mail: astebel@slam.katowice.pl