

New, rare and less known macromycetes in Slovakia II

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Data on ecology, occurrence and endangerment of six rare and/or less known macromycetes collected in Slovakia are given. Although described more than a hundred years ago, only recent collections of *Ascotremella faginea* are known from Slovakia. *Hygrocybe laeta* and *H. russocoriacea* are red-listed in most European countries. *Melanotus phillipsii*, so far known only from the Belianske Tatry Mts., is published from four other areas. A new host of *Panellus violaceofulvus* was found and *Xylaria filiformis* is considered an overlooked species.

Key words: *Ascotremella faginea*, *Hygrocybe laeta*, *H. russocoriacea*, *Melanotus phillipsii*, *Panellus violaceofulvus*, *Xylaria filiformis*, occurrence, ecology

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Na Slovensku sme zaznamenali šesť vzácných a/alebo menej známych makromycétov. Uvádzame nové poznatky o ich ekológii, výskyte a ohrozenosti. Zistili sme, že zo Slovenska sú známe len súčasné zbery *Ascotremella faginea*, napriek tomu, že bol druh opísaný takmer pred sto rokmi. *Hygrocybe laeta* a *H. russocoriacea* sú zaradené do červených zoznamov väčšiny európskych krajín. *Melanotus phillipsii*, dosiaľ známy len z Belianskych Tatier, sme našli v štyroch ďalších oblastiach. Pre *Panellus violaceofulvus* sme potvrdili nového hostiteľa a *Xylaria filiformis* považujeme za prehliadaný.

INTRODUCTION

This paper is a continuation of our study of new, rare and less known macromycetes in Slovakia begun by Ripková and Hagara (2003). It brings new information on ecology, occurrence and endangerment of *Ascotremella faginea*, *Hygrocybe laeta*, *H. russocoriacea*, *Melanotus phillipsii*, *Panellus violaceofulvus* and *Xylaria filiformis*, which might be useful to help understand their role and position in ecosystems.

MATERIAL AND METHODS

The presented data are mostly based on specimens from official herbaria, such as BRA, BRNM, GENT, PRM, SLO, and SAV. Abbreviations of the herbaria are cited in accordance with the Index Herbariorum (Holmgren et al. 1990). There is also a specimen from L. Hagara's herbarium (LH). Data on specimens are updated and some original names of localities are given in square brackets. Phytogeographical units of Slovakia are according to Futák (1966). The position of the collection sites is presented as a quadrant (Q) of the Central European grid mapping system (MTB). In case a village or town nearby a site is given, it is mentioned first. Terminology of the vertical occurrence of species is based on that used by Kotlaba (1984). Only published data (no data from the Internet) on the distribution of the species in Europe are quoted, but they are – due to a lack of literature – incomplete.

RESULTS AND DISCUSSION

Ascotremella faginea (Peck) Seaver

Description and/or illustrations: Hagara (2006), Papoušek (2004), Breitenbach and Kränzlin (1984), Kotlaba (1995), Gamundí and Dennis (1969).

Ecology: in Slovakia, *Ascotremella faginea* occurs from the colline to the submontane belt. Its lowest known altitude is 390 m, the highest 710 m. It is known as a saprophyte producing fruitbodies on fallen trunks of *Fagus sylvatica*, *Acer pseudoplatanus* and *A. platanooides* in September and October. It seems that this species prefers well-preserved beech forest habitats.

Other known hosts of the species in Europe are *Alnus* sp., *Carpinus betulus*, *Corylus avellana*, *Quercus* sp., *Sambucus nigra*, *Tilia* sp. and *Ulmus glabra*; of coniferous trees also *Picea abies*. In general, it occurs from June to October (Breitenbach and Kränzlin 1984, Kotlaba 1995).

Occurrence in Slovakia (Fig. 1): five localities – one locality in the Považský Inovec Mts. (1 specimen), one in the Vtáčnik Mts. (1 specimen), one in the Laborecká vrchovina Mts. (1 specimen) and two in the Bukovské vrchy Mts. (3 specimens).

The species was also found in the Strážovské vrchy Mts. (Pružina-Podskalie, 6 Oct. 2005) during the 9th Mycological Meeting in Slovakia, but a voucher specimen does not exist.

Notes: for distribution in Europe, see Kotlaba (1995).

In Slovakia, the first collections of *Ascotremella faginea* are reported from the end of last century (Kotlaba and Pouzar 1990), although it was described a hun-

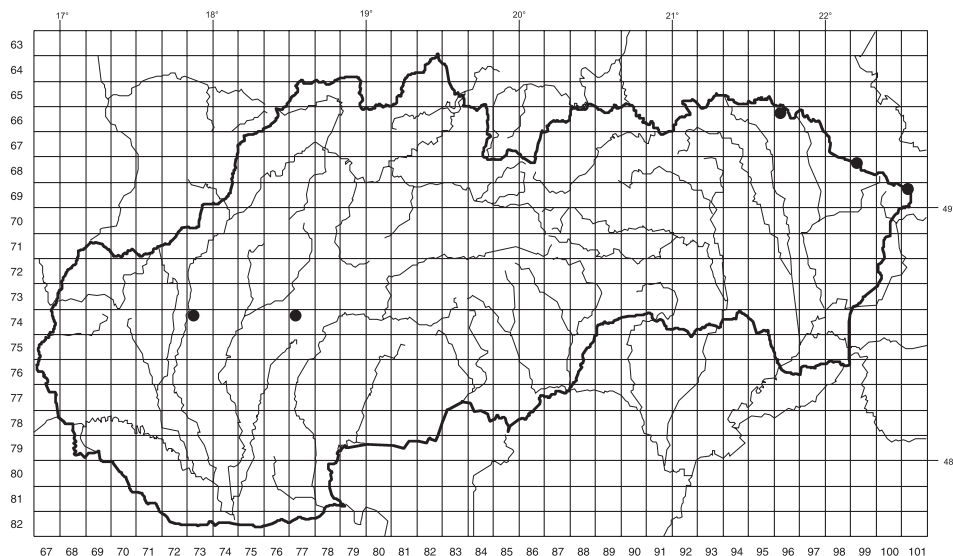


Fig. 1. Occurrence of *Ascotremella faginea* in Slovakia.

dred years before (Peck 1890). Because of its interesting habit, the species could only be mistaken (with the naked eye) for an *Ascocoryne* and *Tremella* species. It is easily distinguished microscopically.

Material studied

– Považský Inovec Mts.: Q 7473a: Havran hill, c. 200 m NNE of the road between the village of Radošina and the city of Piešťany, 390 m a. s. l., on fallen trunk of *Fagus sylvatica* without bark, 4 Oct. 2005, leg. V. Kučera (SAV).

– Vtáčnik: Q 7477a: Oslany, Lómy recreation area, 710 m a. s. l., on fallen trunk of *Acer pseudoplatanus*, 26 Sept. 2002, L. Hagara (LH).

– Laborecká vrchovina Mts.: Q 6696a: Nižný Komárnik, Komárnická jedlina National Nature Reserve, c. 2.5 km NEE of the village, 520 m a. s. l., on fallen trunk of *Fagus sylvatica* without bark, 12 Oct. 2005, leg. V. Kučera (SAV).

– Bukovské vrchy Mts.: Q 6901a: Stučica National Nature Reserve, on fallen trunk of *Fagus sylvatica*, 3 Oct. 1989, leg. J. Kuthan (BRA). – Q 6899a: Udava National Reserve, on fallen trunk of *Acer platanoides*, 23 Oct. 1987, leg. J. Terray (PRM). – Ibidem, 18 Oct. 1989, on fallen trunk of *Fagus sylvatica*, leg. J. Kuthan (BRNM, BRA).

Hygrocybe laeta M. M. Moser

Descriptions and/or illustrations: Boertmann (2000), Breitenbach and Kränzlin (1991), Candusso (1997).

Ecology: in Slovakia, *Hygrocybe laeta* occurs from the submontane to the supramontane belt. Its lowest known altitude is c. 650 m, the highest c. 1400 m. All Slovak collections, with the exception of one from the Slanské vrchy Mts., originate from northern Slovakia, an area dominated by spruce forests.

In Europe, *H. laeta* generally grows in unfertilised grasslands with preference for heath-like vegetations (Boertmann 2000).

Occurrence in Slovakia (Fig. 2): eleven localities – one locality in the Slanské vrchy Mts. (1 specimen), two in the Nízke Tatry Mts. (2 specimens), two in the Západné Tatry Mts. (2 specimens), one in the Belianske Tatry Mts. (1 specimen), three in the Liptovská kotlina Basin (3 specimens) and two in the Západné Beskydy Mts. (2 specimens).

Notes: for distribution in Europe, see Boertmann (2000).

Material studied

– Slanské Vrchy Mts.: Q 7094d: Zlatá Baňa, Pusté pole, among grass under *Picea* juveniles, 2 Oct. 1988, leg. L. Ďurček (BRA).

– Nízke Tatry Mts.: Q 7084b: Malužiná, Michalovo valley, old, occasionally grazed meadow with mosses, on limestone, 48° 59' 55.6" N, 19° 45' 08.2" E, 794 m a. s. l., 26 Aug. 2002, leg. V. Kautman (BRA). – Ibidem, locality “pod Hradiskom“, 770 m a. s. l., among grass, 14 Aug. 2000, leg. I. Kautmanová (BRA).

– Západné Tatry Mts.: Q 6784a: Zverovka chalet, under Osobitá hill, meadow with solitary *Picea* trees, c. 1400 m a. s. l., 6 Aug. 1977, leg. J. Kuthan (BRA). – Q 6884d: Pribylina, Račková dolina valley, submountainous pasture, c. 600 m a. s. l., among grass, 19 Sept. 1977, leg. J. Kuthan (BRA).

– Belianske Tatry Mts.: Q 6787d: Tatranská Kotlina, roadside, c. 700 m a. s. l., among grass, 14 Sept. 1974, leg. J. Kuthan (BRA).

– Liptovská kotlina Basin: Q 6985a–b (lack of detailed information does not allow accurate localisation): between the villages of Východná and Važec, moist pasture under *Vaccinium myrtillus*, c. 850 m a. s. l., 29 Aug. 1979, leg. J. Kuthan (BRA). – Q 6985b: Važec, locality “Važecká poľana“, c. 750 m a. s. l., among grass, 16 Sept. 1979, leg. J. Kuthan (BRA). – Q 6985b–6986a (lack of detailed information does not allow accurate localisation): Važec, valley of the Solisková voda stream, pasture, 840 m a. s. l., 13 Aug. 1987, leg. J. Kuthan (BRA).

– Západné Beskydy Mts.: Q 6578c: Raková, c. 650 m a. s. l., among grass, 18 Sept. 1966, leg. J. Kuthan (BRA). – Q 6578c: Staškov, coniferous forest, c. 650 m a. s. l., among mosses, 30 Sept. 1967, leg. J. Kuthan (BRA).

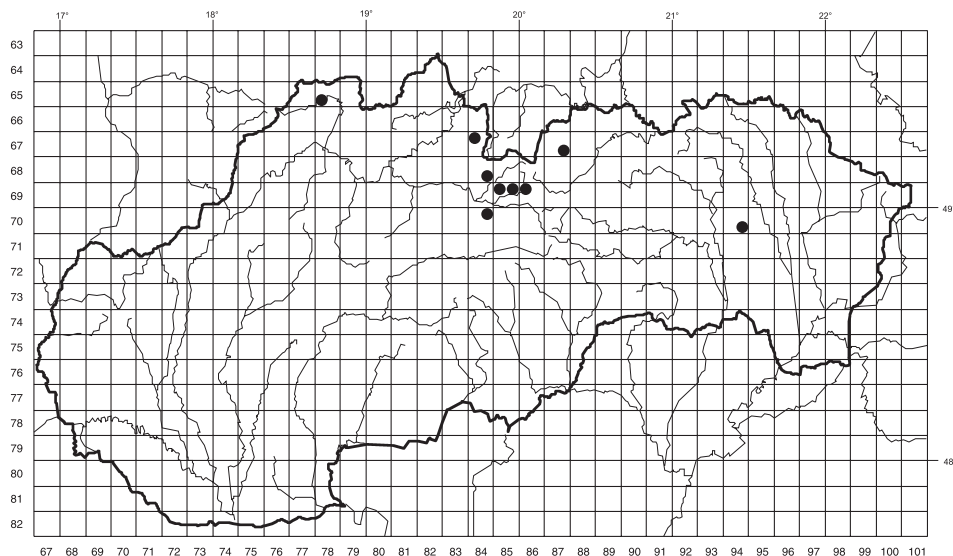


Fig. 2. Occurrence of *Hygrocybe laeta* in Slovakia.

***Hygrocybe russocoriacea* (Berk. et T. K. Mill.) P. D. Orton et Watling**

Descriptions and/or illustrations: Boertmann (2000), Breitenbach and Kränzlin (1991), Candusso (1997).

Ecology: in Slovakia, *Hygrocybe russocoriacea* occurs from the colline to the submontane belt. Its lowest known altitude is 316 m, the highest c. 700 m. We have made all our six collections in unfertilised and very moist meadows in association with *Hygrocybe mucronella* and *H. conica*. We think that the restricted number of associated *Hygrocybe* species was limited by soil moisture (Adamčík and Kautmanová 2005). It seems that these three species have no preference for any soil pH: they grow on acid soil (abandoned pasture area near the village of Vyšný Komárnik) as well as on alkaline soil (Grúnik Nature Monument and Čertižnianske lúky Nature Reserve; see Material studied).

In Europe the species generally grows in unimproved grasslands, occasionally on roadsides or fixed sand dunes (Boertmann 2000).

Occurrence in Slovakia (Fig. 3): seven localities – one in the Devínska Kobyla Hills (2 specimens), two in the Nízke Tatry Mts. (2 specimens), four in the Nízke Beskydy Mts. (6 specimens).

Notes: for distribution in Europe, see Boertmann (2000).

The delimitation of *Hygrocybe russucoriacea* is based on darker colours of the pileus and a strong characteristic smell (of Russian leather or cedar wood).

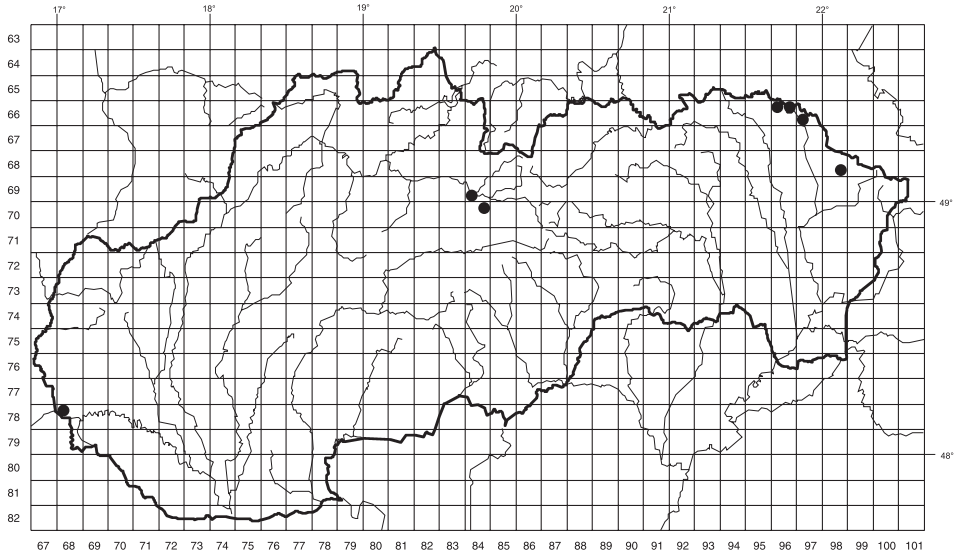


Fig. 3. Occurrence of *Hygrocybe russocoriacea* in Slovakia.

H. virginea (Wulfen) P. D. Orton et Watling is a similar species, which has usually a paler cream colour, but its variety *H. virginea* var. *ochraceopallida* (P. D. Orton) Boertm. has similar buff tints. Thus the only useful identification character is the smell of basidiocarps. Although Boertmann (2000) noted that the smell of *H. russocoriacea* persisted in an exsiccate for several years, we were not able to determine a distinct difference between our one-year-old collections of both species. Both *H. russocoriacea* and *H. virginea* have a similar pileipellis structure (thin cutis with long, cylindrical, 2–4 μm wide hyphal terminations) and ovoid spores c. 7.5–9 \times 4.5–5.5 μm large. As we were not able to verify herbarium specimens of *H. russocoriacea*, we treat all material not studied when fresh as unverified.

Material studied

– Devínska Kobyla Hills: Q 7868a: Bratislava-Dúbravka, meadow, in short grass, 9 Nov. 1968, leg. I. Fábry (BRA, 2 specimens, as *Camarophyllus russocoriaceus*).

– Nízke Tatry Mts.: Q 6984c: Liptovský Ján, Jánská dolina valley, meadow with *Pinus* sp. trees, c. 700 m a. s. l., 14 July 1985, leg. J. Kuthan (BRA, as *Camarophyllus russocoriaceus*). – Q 7084b: Kráľova Lehota, Michalovo valley, N of Ohnište National Nature Reserve, pasture at the fringe of a spruce wood, 3 Oct. 1993, leg. P. Škubla (BRA, as *Camarophyllus russocoriaceus*).

– Nízke Beskydy Mts.: Q 6696a: Vyšný Komárnik, c. 1 km SW of the church in the village, abandoned pasture area, World War II Open-air Museum, 418 m a. s. l.,

among grass, 5 Oct. 2004, leg. S. Adamčík (SAV). – Ibidem, 12 Oct. 2006, leg. J. Terray (SAV). – Q 6696b: Čertižné, Grúnik Nature Monument, 683 m a. s. l., among grass, 13 Oct. 2005, leg. S. Ripková (SAV). – Q 6697c: Čertižné, Čertižnianske lúky Nature Reserve, 420 m a. s. l., among grass, 13 Oct. 2005, leg. S. Adamčík (SAV). – Q 6898d: Hostovice, Hostovické lúky National Nature Reserve, moist meadow, 316 m a. s. l., in a stand of *Iris sibirica*, *Filipendula ulmaria* and other species, 3 Oct. 2004, leg. V. Kučera (SAV). – Ibidem, 9 Oct. 2005, leg. S. Adamčík (SAV).

Melanotus phillipsii (Berk et Broome) Singer

Description and/or illustrations: Watling and Gregory (1987), Cetto (1993b), Breitenbach and Kränzlin (1995), Vellinga (1999), Bon and Pacaud (2002).

Ecology: *Melanotus phillipsii* appears to be able to live as a parasite and a saprophyte. It causes white patch disease of turf grass species, mostly of *Festuca arundinacea* (Burpee et al. 2003, Toda et al. 2005), and produces basidiocarps on dead hosts (Baird et al. 1996, Hagan 2000). The infected plants may become thin in spots, but usually most of them survive and recover (Baird et al. 1996, Hagan 2000). Recently, plant disease research is actual, so new ecological data on *M. phillipsii* may be obtained.

In Slovakia, the species occurs from the planar to the subalpine belt. Its lowest known altitude is c. 220 m, the highest 1465 m. *M. phillipsii* produces basidiocarps on dead stems and leaves of *Carex*, *Dactylis glomerata* and other unidentified grasses from June to October.

Abroad, a wider range of host plants is known: *Agrostis*, *Agropyron*, *Festuca*, *Lolium* and *Poa* species (Smiley on line), *Holcus lanatus*, *Lolium perenne*, *Glyceria maxima*, *Juncus* and *Carex* species (Vellinga 1999), *Cirsium*, *Origanum*, *Scrophularia* and *Urtica* species (Breitenbach and Kränzlin 1995), *Phragmites australis* (Anonymus on-line) and *Pteridium aquilinum* (De Meulder 2004). In Luxembourg, it was collected in April (Schultheis and Tholl 2003).

Although we have collected *M. phillipsii* only on traditionally managed meadows, records from lawns are known, too (Hagan 2000).

Occurrence in Slovakia (Fig. 4): five localities – one locality in the Ipeľsko-rimavská brázda Furrow (1 specimen), two in the Biele Karpaty Mts. (southern part – 1 specimen, northern part – 4 specimens), one in the Belianske Tatry Mts. (8 specimens), and one in the Nízke Beskydy Mts. (1 specimen).

Notes: in Europe, the species is red-listed in Germany, Latvia, Poland and Switzerland (see Tab. 1). It is also known from Belgium (De Meulder 2004), the Czech Republic (herbarium specimen cited here), Italy (Cetto 1993b), Luxembourg (Schultheis and Tholl 2003), the Netherlands (Vellinga 1999), England, Ire-

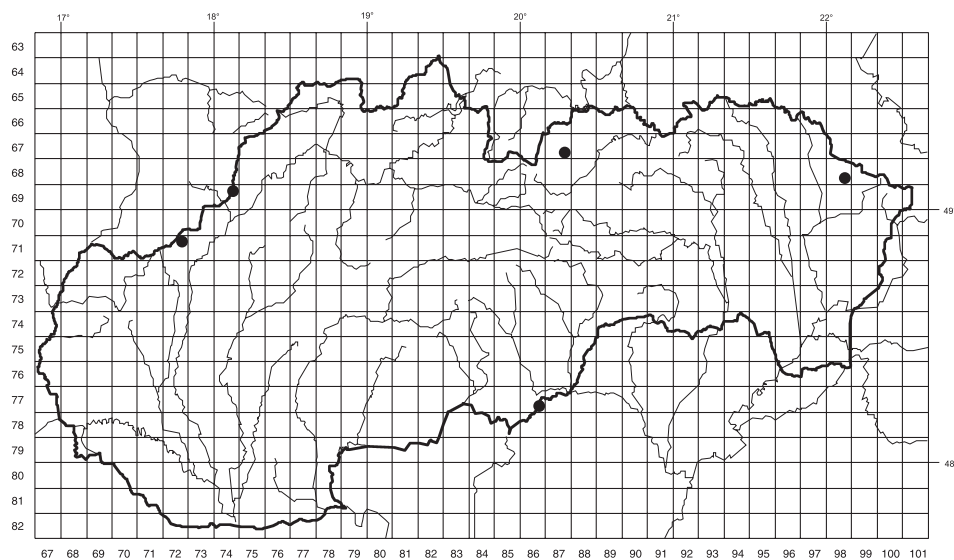


Fig. 4. Occurrence of *Melanotus philipsii* in Slovakia.

land and Scotland (Watling and Gregory 1987). According to the Internet it occurs in Denmark, Norway and Sweden as well.

The species might be overlooked because of its small size (up to 10 mm) and habitat preferences.

Material studied

– Ipeľsko-rimavská brázda Furrow: Q 7786d: Hostice, near Hostice water reservoir, c. 220 m a. s. l., on dead stems and leaves of grass in a stand with *Typha* and *Carex*, 9 June 2004, leg. S. Adamčík (SLO).

– Biele Karpaty Mts. (southern part): Q 7172b: Nová Bošáca, Grúň Nature Monument, meadow, 438 m a. s. l., on dead stems and leaves of *Carex*, 1 July, leg. S. Adamčík (SLO).

– Belianske Tatry Mts.: Q 6787d: Plesnivec [Protěž] chalet, *Epilobietum*, 1300 m a. s. l., 19 July 1956, leg. F. Šmarda (BRNM). – Ibidem, on leaves of dead grass, 23 July 1956, leg. F. Šmarda (BRNM). – Ibidem, on stems and leaves of *Dactylis glomerata*, 25 July 1956, leg. F. Šmarda (BRNM). – Ibidem, [Hviezdoň], on stem of dead grass, 27 July 1956, leg. K. Kříž (BRNM). – Ibidem, [Hviezdoň], *Deschampsietum cespitosae*, 1465 m a. s. l., on dead grass, 28 July 1956, leg. K. Kříž (BRNM). – Ibidem, [Hviezdoň], *Deschampsietum cespitosae*, 1400 m a. s. l., on dead grass, 28 July 1956, leg. K. Kříž (BRNM). – Ibidem, [Hviezdoň], site “ovčí žlab”, *Deschampsietum cespitosae*, 1395 m a. s. l., on dead and decaying stems of grass, 28 July 1956, leg. K. Kříž (BRNM). – Ibidem, [Hviezdoň], *Deschampsietum cespitosae*, 1393 m a. s. l., on dead grass, 28 July 1956, leg. K. Kříž (BRNM).

– Biele Karpaty Mts. (northern part): Q 6974b: Vršatské Podhradie, Lysá, meadow, 683 m a. s. l., on dead leaves of grass, 27 Sept. 2002, leg. S. Adamčík et V. Kučera (SLO). – Ibidem, 1 Oct. 2002, leg. S. Adamčík (SLO). – Ibidem, 26 Sept. 2005, leg. S. Ripková (SLO, 2 specimens).

– Nízke Beskydy Mts.: Q 6898d: Hostovice, Hostovické lúky Nature Reserve, meadow, 328 m a. s. l., on dead leaves of grass, 13 June 2004, leg. S. Ripková (SLO).

Other material studied

– Czech Republic, 7266d: Valtice, c. 2.5 km E of the railway station, Rendez-vous National Nature Monument, 200 m a. s. l., on decaying remnants of grass, 13 July 1996, leg. V. Antonín (BRNM).

Panellus violaceofulvus (Batsch) Singer

Description and/or illustrations: Cetto (1993a), Breitenbach and Kränzlin (1991), Heilmann-Clausen and Christensen (2004).

Ecology: in Slovakia, *Panellus violaceofulvus* occurs from the colline to the submontane belt. Its lowest known altitude is c. 360 m, the highest 750–800 m. It is known as a saprophyte producing fruitbodies on bark of twigs, branches and trunks of coniferous trees. The most frequent host of this species is *Abies alba*, a rare one is *Picea abies*. Collections date from July to December.

Surprisingly, we found the species in March on a fallen branch of *Salix* sp. in association with other non-lichenised and lichenised fungi such as *Merismodes* sp., *Lecania fuscella*, *Lecanora chlarotera*, *Lecanora symmicta*, *Lecidella elaeochroma*, *Physcia stellaris* and *Xanthoria parietina*.

Occurrence in Slovakia (Fig. 5): twelve localities – one locality in the Štiavnické vrchy Mts. (1 specimen), one in the Malá Fatra (Lúčanská Fatra) Mts. (1 specimen), one in the Slovenské rudohorie Mts. (1 specimen), three in the Nízke Tatry Mts. (3 specimens), two in the Spišské kotliny Basins (2 specimens), two in the Nízke Beskydy Mts. (2 specimens) and two in the Bukovské vrchy Mts. (5 specimens).

Škubla (2003) mentioned also two other collections – one from Kubínska hoľa hill (Západné Beskydy Mts.) and another from Maňov hill (Bukovské vrchy Mts.).

Notes: in Europe, the species is red-listed in Austria, Czech Republic, Germany, Latvia, Norway and Poland (see Tab. 1). It also occurs in Italy (Cetto 1993a).

Up to 1989, when Kuthan (1989) mentioned that *P. violaceofulvus* was very rare, ten specimens were known from Slovakia. Since then, within the past 20 years, only 5 other specimens have been collected.

Material studied

– Štiavnické vrchy Mts.: Q 7579c: Banská Štiavnica, Sitno hill, Teplá stráň, on dead branch of *Abies alba*, 13 Aug. 1958, leg. F. Kotlaba (PRM).

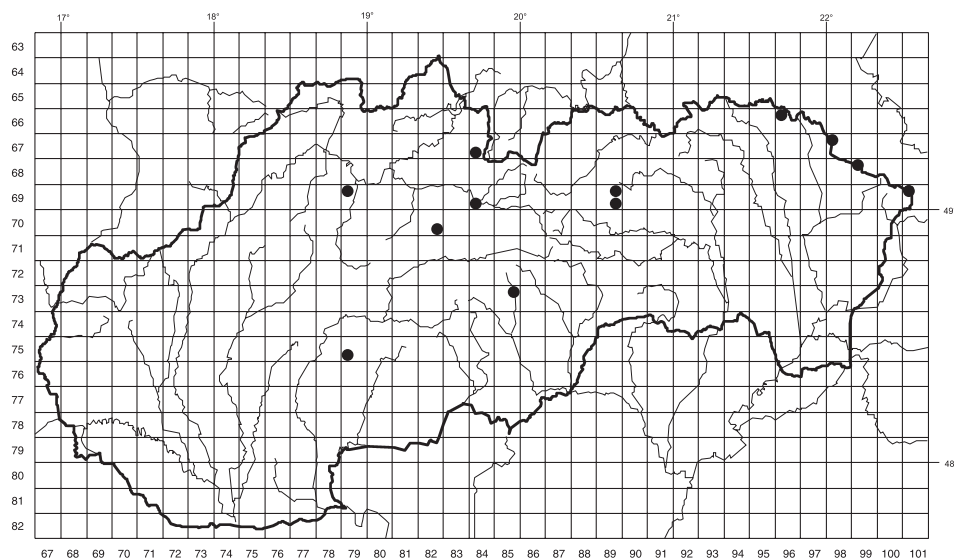


Fig. 5. Occurrence of *Panellus violaceofulvus* in Slovakia.

– Malá Fatra (Lúčanská Fatra) Mts.: Q 6979a: Bystrička, 3.4 km W of the village, near the Bystrička stream, c. 660 m a. s. l., on trunk of *Picea abies*, 12 Nov. 1983, leg. L. Hagara (BRA).

– Slovenské rudohorie Mts.: Q 7385b: Tisovec, near Šťavica spring, c. 1.5 km ENE of the church, bank vegetation of the Skalička stream with *Salix*, *Alnus* and *Fraxinus*, c. 360 m a. s. l., on bark of fallen decaying branch of *Salix* sp., 25 March 2006, leg. S. Ripková (SLO).

– Nízke Tatry Mts.: Q 7082d: Magurka, on *Abies alba*, 7 July 1948, leg. J. Kubička (PRM). – Q 6784c: Liptovská Lužná, southern slope of Salatín hill, on dead branch of *Abies alba*, 17 Oct. 1984, leg. F. Kotlaba (PRM). – Q 6984c: Liptovský Hrádok, Kameničná hill, Borová Sihoľ, 700 m a. s. l., on decaying stump of *Picea*, 10 Sept. 1988, leg. J. Kuthan (BRA).

– Spišské kotliny Basins: Q 6989b: Levoča [Löcse], Cvancigerka, i.e. the valley near the settlement of Levočské Kúpele [Zwanziger Grund], on moist trunk of coniferous tree, Oct. 1914, leg. V. Greschik (BRA). – Q 6989d: Levoča [Löcse], Zbojnícka lúka, i.e. the meadow near Mariánska hora hill [Räuberwiese], on fallen trunk of *Abies alba*, Dec. 1915, leg. V. Greschik (BRA).

– Nízke Beskydy Mts.: Q 6696a: Nižný Komárnik, Komárnická jedlina National Nature Reserve, c. 480 m a. s. l., on dead branch of *Abies alba*, 26 Oct. 1987, leg. F. Kotlaba (PRM). – Q 6798a: Palota, Palotská jedlina National Nature Reserve, c. 600 m a. s. l., on dead twig of *Abies alba*, 27 Oct. 1987, leg. Z. Pouzar and F. Kotlaba (PRM).

– Bukovské vrchy Mts.: Q 6899a: Osadné, Udava Nature Reserve, c. 600 m a. s. l., on fallen branch of *Abies alba*, 23 Oct. 1987, leg. F. Kotlaba (PRM). – Q 6901a: Nová Sedlica, Stučica National Nature Reserve, Príkry hill, 750–800 m a. s. l., on fallen, decaying branch of *Abies alba*, 11 Oct. 1990, leg. V. Macejka (BRA). – Q 69101a: Nová Sedlica, Stučica National Nature Reserve, c. 600 m a. s. l., on twigs of fallen trunk of *Abies alba*, 5 Oct. 2003, leg. R. Walley (GENT, 1 specimen; Heilmann-Clausen's herbarium, 2 specimens).

Xylaria filiformis (Alb. et Schwein.) Fr.

Description and/or illustrations: Breitenbach and Kränzlin (1984), Albertini and Schweinitz (1805), Medardi (2003).

Ecology: in Slovakia, *Xylaria filiformis* occurs from the colline to the submontane belt. Its lowest known altitude is 316 m, the highest c. 760 m. It is known as a saprophyte producing fruitbodies on stems of *Centaurea jacea*, cf. *Lathyrus pratensis*, *Ononis spinosa*, *Phlox drummondii* and other, unidentified herbaceous plants; on leaves of *Juglans mollis*, *Pyrus communis* and *Quercus* sp. and on fruits of *Iris sibirica*. It has been collected on meadows, pastures and other grassland habitats like cemeteries and gardens from June to November.

In Europe it has also been collected on *Syringa vulgaris* (Albertini and Schweinitz 1805).

Occurrence in Slovakia (Fig. 6): eleven localities – one locality in Bratislava (1 specimen), one in the Biele Karpaty Mts. (northern part – 1 specimen), six in the Štiavnické vrchy Mts. (16 specimens), one in the Slovenský raj Mts. (1 specimen), one in the Laborecká vrchovina Mts. (1 specimen) and one in the Vihorlatské vrchy Mts. (1 specimen).

The species, probably overlooked in the field (we have collected it every year during our three-year project focused on grassland habitats), has also been reported from the Belianske Tatry Mts. (Kubička 1976) and Strážovské vrchy Mts. (Lizoň 2005). However, we have not found voucher specimens of these finds.

Notes: in Europe, the species is red-listed in the Czech Republic, the Netherlands, Norway and Switzerland (see Tab. 1), but it is also known from Finland and Sweden (Whalley 2000). On the Internet it is also reported from Austria, Belgium, France, Hungary and Poland.

Material studied

– Q 7868 a–b (lack of detailed information does not allow accurate localisation): Bratislava [Pressburg], leg. K. Mergel (BRA).

– Biele Karpaty Mts. (northern part): Q 6974b: Vršatské Podhradie, c. 1.2 km NNW of the ruins of Vršatec castle, meadow, c. 760 m a. s. l., on dead stems of herbaceous plants, 31 July 2005, leg. V. Kučera (SAV).

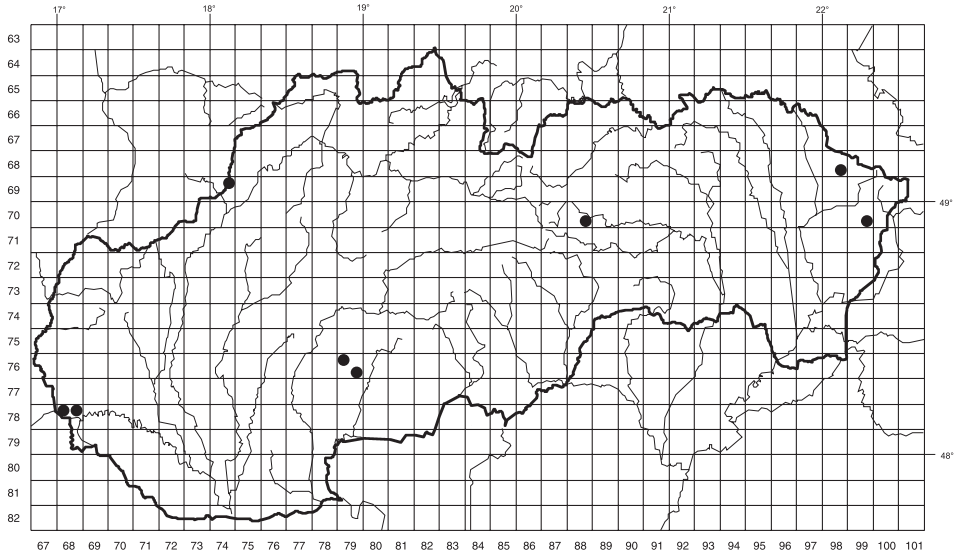


Fig. 6. Occurrence of *Xylaria filiformis* in Slovakia.

– Štiavnické vrchy Mts: Q 7679 (lack of detailed information does not allow accurate localisation): Prenčov, 1897, leg. A. Kmeť (BRA). – Ibidem, on dead stem, 27 June 1888, leg. A. Kmeť (BRA). – Ibidem, on dead leaves of *Quercus* sp., 2 June 1897, leg. A. Kmeť (BRA). – Ibidem, cemetery, 2 Oct. 1888, leg. A. Kmeť (BRA). – Ibidem, cemetery, on dead stems of *Centaurea jacea*, 15 Oct. 1888, leg. A. Kmeť (BRA). – Ibidem, cemetery, on dead stem of cf. *Lathyrus pratensis*, 15 Oct. 1888, leg. A. Kmeť (BRA). – Ibidem, cemetery, on dead stems of *Phlox drummondii*, 15 Oct. 1888, leg. A. Kmeť (BRA). – Ibidem, cemetery, on dead leaves of *Pyrus communis*, 15 Oct. 1888, leg. A. Kmeť (BRA). – Ibidem, parish garden, 3 Nov. 1896, leg. A. Kmeť (BRA). – Ibidem, parish garden, 6 July 1886, leg. A. Kmeť (BRA). – Ibidem, parish garden, on dead leaves, 28 Oct. 1889, leg. A. Kmeť (BRA). – Ibidem, parish garden, on petioles of dead leaves of *Juglans mollis*, 5 Aug. 1888, leg. A. Kmeť (BRA). – Ibidem, locality “Na háj”, 8 Oct. 1888, leg. A. Kmeť (BRA). – Ibidem, school garden, on dead stem, 16 July 1888, leg. A. Kmeť (BRA). – Ibidem, Sitno hill, meadow, on dead stem of *Ononis spinosa*, 14 June 1888, leg. A. Kmeť (BRA). – Ibidem, Sitno hill, 17 Aug. 1897, leg. A. Kmeť (BRA).

– Slovenský raj Mts.: Q 7088d: Čingov, valley of the Lesnica stream, 1 Oct. 1986, leg. M. Svrček (PRM).

– Laborecká vrchovina Mts.: Q 6898d: Hostovice, Hostovické lúky National Nature Reserve, moist meadow, 316 m a. s. l., on dead fruits of *Iris sibirica* and other herbaceous debris, 14 June 2004, leg. V. Kučera (SAV).

– Vihorlatské vrchy Mts.: Q 7099d: Strihovce, c. 3.5 km NNW of the church, Pod Dielom, abandoned pasture with *Betula pendula*, *Salix* sp. and *Populus tremula*, c. 550 m a. s. l., on dead stems of herbaceous plants, 8 Sept. 2003, leg. V. Kučera (SAV).

Threat

In Tab. 1 it is indicated in which countries of Europe the respective species are classified as threatened. The data are from the following sources: Austria – A (Krisai-Greilhuber 1999), Croatia – HR (Anonymus 2005), Czech Republic – CZ (Holec and Beran 2006), Finland – FIN (Rassi et al. 2001), Germany – D (Benkert et al. 1996), Latvia – LT (Andruđaitis 1996), Netherlands – NL (Arnolds and Kuyper 1996), Norway – N (Brandrud et al. 2006), Poland – PL (Wojewoda and Ławrynowicz 2006), Romania – RO (Tanase and Pop 2005), Slovakia – SK (Lizoň 2001), Sweden – S (Gärdenfors 2005) and Switzerland – CH (Senn-Irlet 1997).

Tab. 1. Classification of the species as threatened in European countries.

species / country	A	HR	CZ	FIN	D	LT	NL	N	PL	RO	SK	S	CH
<i>Ascotremella faginea</i>		+	+	+				+	+		+		
<i>Hygrocybe laeta</i>	+		+		+		+	+	+	+			+
<i>Hygrocybe russocoriacea</i>	+	+	+	+	+		+	+	+			+	+
<i>Melanotus phillipsii</i>					+	+			+				+
<i>Panellus violaceofulvus</i>	+		+		+	+		+	+				
<i>Xylaria filiformis</i>			+				+	+					+

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