

New and interesting lichenized and lichenicolous fungi from Serbia

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Abstract. A list of lichens from Serbia is presented, comprising species new to Serbia or have been recorded once or a few times only; a few lichenicolous fungi are also included. The list is based on investigations of material in the lichen collection of the Belgrade Natural History Museum, together with that collected by the authors. In all, 54 species of lichens and eight lichenicolous fungi are reported from Serbia for the first time. The lichen genera *Brodoa*, *Cornicularia*, *Hypocenomyce*, *Pycnora*, *Pyrenocollema*, *Rhizoplaca*, *Schaereria*, and *Solenopsora*, and the lichenicolous genera *Abrothallus*, *Carbonea*, *Cercidospora*, *Lichenodiplis*, *Muellerella*, *Scutula*, and *Vouauxiella* are new to Serbia. Additional localities are given for 97 lichen species, for which only a few localities have been published.

Key words: biodiversity, fungal diversity, lichenicolous fungi, lichenized fungi, Serbia

Introduction

During the first author's work on a checklist of the lichens of Serbia, material of several species, not previously reported from Serbia, were encountered. The material investigated includes collections from the Belgrade Natural History Museum (BEO), material collected by Savić in various parts of Serbia in 1994–2005, material from Central Serbia collected by Savić and Tibell in 2005 and 2006, and that collected by Andreev in Tara National Park and surroundings (Western Serbia), on a field trip of Andreev, Savić, and Dimović in 2003. The vouchers of the Andreev collections are kept in LE, the other material is in BEO and UPS.

The list below includes species not previously known from Serbia, and also species which have been recorded no more than five times – excluding obvious secondary reports, e.g. in Kušan (1953) and Murati (1992, 1993). In addition, a few lichenicolous fungi [LF] have been

included in the list. References for additional records are available in Savić & Tibell (2006). An asterisk (*) precedes the records new to Serbia. When indicating the localities, an arbitrary subdivision of Serbia into Central, Northern, Western, Eastern, and Southern Serbia has been applied (Fig. 1).

List of species

**Abrothallus caeruleus* Kotte [LF]

Central Serbia: Rudnik Mts, 0.5 km NNE of motel 'Šumska kuća', 44°08' N, 20°30' E, 2006, Savić & Tibell 24 201 (UPS). On the thallus of *Xanthoparmelia conspersa*.

Acarospora cervina A. Massal.

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3572, 3590). Previously recorded from only one locality.

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Fig. 1. Subdivision of Serbia as used in this paper: C = Central Serbia, N = Northern Serbia, W = Western Serbia, E = Eastern Serbia, and S = Southern Serbia



A. fuscata (Schrad.) Th. Fr.

Central Serbia: Mt Ostrovica, close to town Rudnik, 1946, Lindtner (BEO 726, 734, 735); Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell (BEO 3643). Previously recorded from two localities.

A. glaucocarpa (Ach.) Körb.

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell 24 218 (UPS). Previously recorded from two localities.

A. veronensis A. Massal.

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell 24 219 (BEO 3651, UPS). Previously recorded from four localities.

**Acrocordia conoidea* (Fr.) Körb.

Western Serbia: Tara National Park, about 15-20 km W of town Bajna Bašta, 'Perućačko jezero' in Drina gorge, Derventa gorge in Trešnjevac Range S of Kozla, 43°55' N, 19°20' E, 2003, Andreev (LE); about 20 km W of town Bajna Bašta, 'Perućačko jezero' in Drina gorge, Grlac gorge of the Neveljsk creek on the front of Klotijevac, 44°00' N, 19°15' E, 2003, Andreev (LE).

Aspicilia caesiocinerea (Nyl. ex Malbr.) Arnold

Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3682). Previously recorded from five localities.

A. contorta (Hoffm.) Kremp.

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3581a); Mt Stara Planina (Balkan), 1999, Savić (BEO 3602a). Previously recorded from three localities.

**A. moenium* (Vain.) G. Thor & Tindal

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell 24 212 (UPS).

**Bacidia herbarum* (Stizenb.) Arnold

Eastern Serbia: vicinity of town Bor, river 'Bela reka', 1994, Savić (BEO 3601).

**B. subincompta* (Nyl.) Arnold

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell 24 227 (UPS).

Bağliettoa parmigera (J. Steiner) Vězda & Poelt

Eastern Serbia: vicinity of town Bor, close to the top of Mt 'Veliki Krš', 1997, Savić (BEO 3563). Previously recorded from only one locality.

B. steineri (Kušan) Vězda

Western Serbia: Tara National Park, about 15-20 km W of town Bajna Bašta, 'Perućačko jezero' in Drina gorge, Derventa gorge in Trešnjevac Range S of Kozla, 43°55' N, 19°20' E, 2003, Andreev (LE). Previously recorded from only one locality.

**Brodoa intestiniformis* (Vill.) Goward

Eastern Serbia: Mt Stara Planina (Balkan), 1999, Savić (BEO 3610).

**Buellia aethalea* (Ach.) Th. Fr.

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell (BEO 3645, as admixture with *Caloplaca holocarpa*). Western Serbia: Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km to SW from Kremna, railway 'Šarganska osmica', near station Jatare, 44°40' N, 19°40' E, 2003, Andreev (LE); Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km SW of Kremna, railway 'Šarganska osmica', near station Jatarice on Kamišna, 3 km E of station 'Mokra gora', N slope of the Kozja str. Mt, 44°40' N, 19°35' E, 2003, Andreev (LE).

B. badia (Fr.) A. Massal.

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell (BEO 3661). Previously recorded from two localities.

**B. griseovirens* (Turner & Borrer ex Sm.) Almb.

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell 24222 (UPS); Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3680). Western Serbia: Mt Zlatibor, 43°44' N, 19°43' E, 2005, Savić & Tibell (BEO 3701).

- Caloplaca alociza* (A. Massal.) Mig.
Western Serbia: Tara National Park, Kaludjerske bare, Vidikovac Črnjeskovo, 43°54' N, 19°40' E, 2003, Andreev (LE). Previously recorded from only one locality.
- C. chalybaea* (Fr.) Müll. Arg.
Eastern Serbia: vicinity of town Bor, close to the top of Mt 'Veliki Krš', 1997, Savić (BEO 3564); vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3571). Previously recorded from only one locality.
- C. chrysodeta* (Vain. ex Räsänen) Dombr.
Eastern Serbia: vicinity of town Bor, river 'Beljevina', 1997, Savić (BEO 3567). Previously recorded from only one locality.
- C. crenularia* (With.) J.R. Laundon
Central Serbia: Mt Ostrovica, close to Rudnik, 1946, Lindtner (BEO 744); Mt Ostrovica, 2006, Savić & Tibell (BEO 3691). Western Serbia: Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km SW of Kremna, railway 'Šarganska osmica', near station Jatare, 44°40' N, 19°40' E, 2003, Andreev (LE); Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km SW of Kremna, railway 'Šarganska osmica', near station Jatarice on Kamišna, 3 km E of station 'Mokra gora', N slope of the Kozja str. Mt, 44°40' N, 19°35' E, 2003, Andreev (LE). Previously recorded from three localities.
- **C. crenulatella* (Nyl.) H. Olivier
Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3580).
- **C. festivella* (Nyl.) Kieff.
Central Serbia: 'Brdjani prope Gornji Milanovac, m. Ilijak', 1946, Lindtner (BEO 719, admixture).
- C. grimmiae* (Nyl.) H. Olivier
Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3686). Previously recorded three times.
- **C. herbidella* (Hue) H. Magn.
Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell 24 221 (UPS).
- C. holocarpa* (Hoffm. ex Ach.) A.E. Wade
Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell (BEO 3645). Western Serbia: Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km SW of Kremna, railway 'Šarganska osmica', near station Jatare, 44°40' N, 19°40' E, 2003, Andreev (LE). Previously recorded from five localities.
- **C. inconnexa* (Nyl.) Zahlbr.
Eastern Serbia: vicinity of town Bor, close to the top of Mt 'Veliki Krš', 1997 (BEO 3561); vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3570).
- C. lactea* (A. Massal.) Zahlbr.
Central Serbia: SSE of town Kragujevac, 'Gledičke planine' Mts, 2001, Manojlović (BEO 1446). Previously recorded from three localities.
- **C. obliterans* (Nyl.) Blomb. & Forssell
Eastern Serbia: in the valley of river 'Toplodolska reka', 1946, Rajevski (BEO 755a).
- **Carbonea supersparsa* (Nyl.) Hertel [LF]
Central Serbia: Rudnik Mts, Mt Mali Šturac, on *Lecanora polytropa*, 2006, Savić & Tibell 24 217 (UPS).
- Catillaria lenticularis* (Ach.) Th. Fr.
Eastern Serbia: 'Bela stena', 1922, Pavlović (BEO 254 p.p.). Western Serbia: Tara National Park, 25 km W of town Bajna Bašta, 'Perućačko jezero' in Drina gorge, Dolovi river, 44°00' N, 19°15' E, 2003, Andreev (LE). Previously recorded from only one locality.
- **Cercidospora epipolytropa* (Mudd) Arnold [LF]
Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell 24 235 (UPS). On apothecia of *Lecanora polytropa*.
- Cetrelia olivetorum* (Nyl.) W.L. Culb. & C.F. Culb.
Eastern Serbia: vicinity of town Majdanpek, 1946, Černjavski (BEO 786). Previously recorded from only one locality.
- **Cladonia coccifera* (L.) Willd.
Eastern Serbia: Mt Stara Planina (Balkan), 1999, Savić (BEO 3609).
- C. gracilis* (L.) Willd.
Eastern Serbia: Mt Stara Planina (Balkan), 1999, Savić (BEO 3608). Previously recorded from only one locality.
- C. rangiformis* Hoffm.
Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3677). Previously recorded from five localities.
- **C. rei* Schaer.
Eastern Serbia: vicinity of town Bor, Mt 'Tilva Njagra', 1994, Apostolov & Čokić (BEO 1172).
- **C. uncialis* (L.) Weber ex F.H. Wigg.
Eastern Serbia: Mt Stara Planina (Balkan), 1999, Savić (BEO 3606).
Note: Indicated as possibly (?) occurring in Serbia by Litterski & Ahti (2004).
- Clauzadea immersa* (Hoffm.) Hafellner & Bellem.
Western Serbia: Tara National Park, about 20 km W of town Bajna Bašta, 'Perućačko jezero' in Drina gorge, Grlac gorge of the Neveljsk creek on the front of Klotijevac, 44°00' N, 19°15' E, 2003, Andreev (LE); Tara National Park, 25 km W of town Bajna Bašta, 'Perućačko jezero' in Drina gorge, Dolovi river, 44°00' N, 19°15' E, 2003, Andreev (LE). Previously recorded from only one locality.
- **Clypeococcum hypocenomycis* D. Hawksw. [LF]
Southern Serbia: close to the village Vlasina, lake 'Vlasinsko jezero', 1993, Savić (BEO 1597). On the thallus of *Hypocenomyce scalaris*.
- Collema crispum* (Huds.) Weber ex F.H. Wigg.
Western Serbia: Tara National Park, about 15-20 km W of town Bajna Bašta, 'Perućačko jezero' in Drina gorge, Derventa gorge in Trešnjevac Range S of Kozla, 43°55' N, 19°20' E, 2003, Andreev (LE). Previously recorded from two localities.
- C. flaccidum* (Ach.) Ach.
Central Serbia: Rudnik Mts, 0.5 km NNE of motel 'Šumska kuća', 44°08' N, 20°30' E, 2006, Savić & Tibell (BEO 3664). Previously recorded from four localities.
- C. fuscovirens* (With.) J.R. Laundon
Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3578). Previously recorded from two localities.
- **Cornicularia normoerica* (Gunnerus) Du Rietz
Central Serbia: Mt Golija, 1994, Savić (BEO 1587).
- Endocarpon adscendens* (Anzi) Müll. Arg.

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3593); vicinity of town Bor, river 'Bela reka', 1994, Savić (BEO 1188). Previously recorded from two localities.

E. pusillum Hedw.

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3599). Previously recorded from two localities.

Evernia divaricata (L.) Ach.

Central Serbia: Mt Goč close to Rankovićevo, 1946, Glišić (BEO 759). Previously recorded from only one locality.

**Farnoldia jurana* (Schaer.) Hertel

Western Serbia: Tara National Park, about 15-20 km W of town Bajna Bašta, 'Peručačko jezero' in Drina gorge, Derventa gorge in Trešnjevac Range S of Kozla, 43°55' N, 19°20' E, 2003, Andreev (LE).

Flavocetraria nivalis (L.) Kärnefelt & A. Thell

South Serbia: 'Ms. Koprivnik supra urb. Peć', 1939, Grebenščikov (BEO 594). Previously recorded from only one locality.

Fuscidea cyathoides (Ach.) V. Wirth & Vězda

Western Serbia: Tara National Park, 'Kaluderske bare', Vidikovac Črnješkov, 43°54' N, 19°40' E, 2003, Andreev (LE). Previously recorded from two localities.

**Hymenelia heteromorpha* (Kremp.) Lutzoni

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3582).

**Hypocenomyce scalaris* (Ach.) M. Choisy

Southern Serbia: close to the village Vlasina, lake 'Vlasinsko jezero', 1993, Savić, (BEO 1597; with lichenicolous *Clypeococcum hypocenomyces* D. Hawksw.).

Hypogymnia farinacea Zopf

Western Serbia: Mt Zlatibor, 43°44' N, 19°43' E, 2005, Savić & Tibell (BEO 3698). Previously recorded from only one locality.

Imshaugia aleurites (Ach.) S.L.F. Mey.

Western Serbia: Mt Zlatibor, 43°44' N, 19°43' E, 2005, Savić & Tibell (BEO 3696). Previously recorded from three localities.

Lasallia pustulata (L.) M érat

Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3688). Previously recorded from five localities.

Lecania cyrtella (Ach.) Th. Fr.

Central Serbia: town Rudnik, 0.5 km NNE of motel 'Šumska kuća', 44°08' N, 20°30' E, 2006, Savić & Tibell (BEO 3665; admixture with *Phaeophyscia orbicularis*). Previously recorded from two localities.

L. inundata (Körb.) M. Mayrhofer

Central Serbia: Belgrade, 'Topčidersko Brdo', 1946, Lindtner (BEO 713). Previously recorded from two localities.

**Lecanora cenisia* Ach.

Central Serbia: Mt Golija, 1994, Savić (BEO 1587; admixture with *Cornicularia normoerica*).

L. chlarotera Nyl.

Central Serbia: 3 km WNW of the village Rudnik, 44°09' N, 20°27' E, 2006, Savić & Tibell 24 229 (with *Vousiella lichenicola*; UPS). Western Serbia: Tara National Park, Kaluderske bare, Vidikovac Črnješkov, 43°54' N, 19°40' E, 2003, Andreev (LE). Previously recorded from five localities.

L. crenulata Hook.

Eastern Serbia: vicinity of town Bor, river 'Beljevina', 1997, Savić (BEO 3566); vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3573). Previously recorded from four localities.

L. flotoviana Spreng.

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3574). Previously recorded from only one locality.

**L. lojkaeana* Szatala

Eastern Serbia: in the valley of river 'Toplodolska reka', 1946, Rajevski (BEO 755a).

L. rupicola (L.) Zahlbr.

Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3648). Previously recorded from four localities.

L. saligna (Schr.) Zahlbr.

Western Serbia: Mt Zlatibor, 43°44' N, 19°43' E, 2005, Savić & Tibell (BEO 3699). Previously recorded from two localities.

L. symmicta (Ach.) Ach.

Western Serbia: Mt Zlatibor, 43°44' N, 19°43' E, 2005, Savić & Tibell (BEO 3693). Previously recorded from two localities.

L. varia (Hoffm.) Ach.

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 1179). Previously recorded from four localities.

Lecidea confluens (Weber) Ach.

Western Serbia: Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km SW of Kremna, railway 'Šarganska osmica', near station Jatarice on Kamišna, 3 km E of station 'Mokra gora', N slope of the Kozja str. Mt, 44°40' N, 19°35' E, 2003, Andreev (LE). Previously recorded from only one locality.

**L. confluentula* Müll. Arg.

Western Serbia: 'Debelo Brdo' range, about 25 km from town Bajna Bašta to Valjevo, near village Gmila Priseka, 44°10' N, 19°45' E, 2003, Andreev (LE).

L. fuscoatra (L.) Ach.

Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3650); Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell (BEO 3653). Western Serbia: Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km SW of Kremna, railway 'Šarganska osmica', near station Jatare, 44°40' N, 19°40' E, 2003, Andreev (LE); Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km SW of Kremna, railway 'Šarganska osmica', near station Jatarice on Kamišna, 3 km E of station 'Mokra gora', N slope of the Kozja str. Mt, 44°40' N, 19°35' E, 2003, Andreev (LE); 'Debelo Brdo' range, about 25 km from town Bajna Bašta to Valjevo, near village Gmila Priseka, 44°10' N, 19°45' E, 2003, Andreev (LE). Previously recorded from three localities.

L. tessellata Flörke

Western Serbia: Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km SW of Kremna, railway 'Šarganska osmica', near station Jatarice on Kamišna, 3 km E of station 'Mokra gora', N slope of the

Kozja str. Mt, 44°40' N, 19°35' E, 2003, Andreev (LE). Previously recorded from two localities.

Lecidella carpathica Körb.

Western Serbia: about 15-20 km S of town Bajna Bašta, 2 km N of 'Mokra gora' railway station, 43°40' N, 19°30' E, 2003, Andreev (LE); Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km SW of Kremna, railway 'Šarganska osmica', near station Jatara, 44°40' N, 19°40' E, 2003, Andreev (LE). Previously recorded from four localities.

L. euphorea (Flörke) Hertel

Central Serbia: 3 km WNW of the village Rudnik, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3618); Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3679). Previously recorded from three localities.

L. stigmatea (Ach.) Hertel & Leuckert

Central Serbia: Rudnik Mts, 0.5 km NNE of motel 'Šumska kuća', 44°08' N, 20°30' E, 2006, Savić & Tibell (BEO 3671). Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3577). Western Serbia: Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km SW of Kremna, railway 'Šarganska osmica', near station Jatarice on Kamišna, 3 km E of station 'Mokra gora', N slope of the Kozja str. Mt, 44°40' N, 19°35' E, 2003, Andreev (LE). Previously recorded from five localities.

**Lepraria elobata* Tønsberg

Central Serbia: Rudnik Mts, 0.5 km NNE of motel 'Šumska kuća', 44°08' N, 20°30' E, 2006, Savić & Tibell 24 206 (UPS).

**L. lobificans* Nyl.

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 1166).

L. membranacea (Dickson) Vainio

Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3649, 3683). Recorded by Murati (1993: 153), but without locality.

**Lichenodiplis lecanorae* (Vouaux) Dyko & D. Hawksw. [LF]

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell (BEO 3652). On apothecia of *Caloplaca holocarpa*. Three km WNW of the village Rudnik, 44°09' N, 20°27' E, 2006, Savić & Tibell 24 231 (UPS). On apothecia of *Lecanora hagenii*.

**Lobothallia praeradiosa* (Nyl.) Hafellner

Central Serbia: 'Brdjani prope G. Milanovac, m. Kijak', 1946, Lindtner (BEO 719).

L. radiosa (Hoffm.) Hafellner

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3585); river 'Bela reka', 1994, Savić (BEO 3600a); 'Brdjani prope Gornji Milanovac', 1946, Lindtner (BEO 721). Previously recorded from five localities.

Melanelia fuliginosa (Fr. ex Duby) Essl. subsp. *glabratula* (Lamy) Coppins

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell (BEO 3635). Previously recorded from five localities.

M. subaurifera (Nyl.) Essl.

Central Serbia: Rudnik Mts, vicinity of motel 'Šumska kuća', 2006, Savić & Tibell (BEO 3641). Eastern Serbia: vicinity of town Bor, at the

stream 'Bijeljine', 1997, Savić (BEO 3612). Previously recorded from only one locality.

Micarea prasina Fr.

Central Serbia: Rudnik Mts, 0.5 km NNE of motel 'Šumska kuća', 44°08' N, 20°30' E, 2006, Savić & Tibell (BEO 3670). Previously recorded from only one locality.

**Muellerella pygmaea* (Körb.) D. Hawksw. [LF]

Central Serbia: Rudnik Mts, 0.5 km NNE of motel 'Šumska kuća', 44°08' N, 20°30' E, 2006, Savić & Tibell 24 207 (UPS). On unidentified, sterile lichen on rocks.

**Mycobilimbia epixanthoides* (Nyl.) Hafellner & Türk

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell 24 224 (UPS). Eastern Serbia: vicinity of town Bor, at the stream 'Bijeljine', 1997, Savić (BEO 3613).

M. lurida (Ach.) Hafellner & Türk

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3596). Western Serbia: Tara National Park, Kaluderske bare, Vidikovac Črnješkov, 43°54' N, 19°40' E, 2003, Andreev (LE). Previously recorded from two localities.

**Naetrocymbe rhyponota* (Ach.) R.C. Harris

Central Serbia: 3 km WNW of the village Rudnik, 44°09' N, 20°27' E, 2006, Savić & Tibell 24 230 (UPS).

**Neofuscelia verruculifera* (Nyl.) Essl.

Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell 24 232 (UPS).

**Ochrolechia arborea* (Kreyer) Almb.

Western Serbia, Mt Zlatibor, 43°44' N, 19°43' E, 2005, Savić & Tibell (BEO 3700).

Opegrapha varia Pers.

Western Serbia: Tara National Park, about 20 km W of town Bajna Bašta, 'Peručačko jezero' in Drina gorge, Grlac gorge of the Neveljsk creek on the front of Klotijevac, 44°00' N, 19°15' E, 2003, Andreev (LE). Previously recorded from five localities.

**Peltigera extenuata* (Nyl.) Vain.

Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3692).

**Pertusaria aspergilla* (Ach.) J.R. Laundon

Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell 24 234 (UPS).

**P. flavida* (DC.) J.R. Laundon

Southern Serbia: close to the village Vlasina, lake 'Vlasinsko Jezero', 1993, Savić (BEO 1599, 1600).

P. leioplaca DC.

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell (BEO 3634). Previously recorded from two localities.

**Petractis hypoleuca* (Ach.) Vězda

Western Serbia: Tara National Park, about 20 km W of town Bajna Bašta, 'Perućačko jezero' in Drina gorge, Grlac gorge of the Neveljsk creek on the front of Klotijevac, 44°00' N, 19°15' E, 2003, Andreev (LE).

Phaeophyscia nigricans (Flörke) Moberg

Eastern Serbia: W of town Bor, N of lake 'Borsko Jezero, Prerast', 1994, Savić (BEO 3616). Previously recorded from two localities.

Phlyctis argena (Spreng.) Flot.

Central Serbia: Rudnik Mts, vicinity of motel 'Šumska kuća', 2006, Savić & Tibell (BEO 3639); Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell 24 222 (UPS; as admixture with *Buellia griseovirens*). Previously recorded from four localities.

Physcia dimidiata (Arnold) Nyl.

Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell 24 236 (UPS). Previously recorded by Murati (1992: 295), but no locality indicated.

Physconia perisidiosa (Erichsen) Moberg

Central Serbia: 3 km WNW of the village Rudnik, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3621). Previously recorded from only one locality.

Piccolia ochrophora (Nyl.) Hafellner

Central Serbia: Rudnik Mts, 0.5 km NNE of motel 'Šumska kuća', 44°08' N, 20°30' E, 2006, Savić & Tibell (BEO 3667). Previously recorded from only one locality.

**Placidium pilosellum* (Breuss) Breuss

Western Serbia: Tara National Park, about 15-20 km W of town Bajna Bašta, 'Perućačko jezero' in Drina gorge, Derventa gorge in Trešnjevac Range S of Kozla, 43°55' N, 19°20' E, 2003, Andreev (LE).

P. rufescens (Ach.) A. Massal.

Eastern Serbia: vicinity of town Bor, river 'Bela reka', 1994, Savić (BEO 1188). Previously recorded from three localities.

Placocarpus schaeereri (Fr.) Breuss

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3575). Previously recorded from only one locality.

Placynthiella icmalea (Ach.) Coppins & P. James

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell (BEO 3631). Previously recorded from only one locality.

**P. oligotropha* (Schrad.) Coppins & P. James

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell 24 223 (UPS).

Placynthium nigrum (Huds.) Gray

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3579). Previously recorded from five localities.

**Polysporina lapponica* (Ach. ex Schaer.) Degel.

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell 24 213 (UPS, BEO 3676).

P. simplex (Davies) Vězda

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell (BEO 3645; as admixture with *Caloplaca holocarpa*); Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3690). Western Serbia: 'Debelo Brdo' range, about 25 km from town Bajna Bašta to Valjevo, near village Gmila Priseka, 44°10' N, 19°45' E, 2003, Andreev (LE). Previously recorded from two localities.

Porpidia crustulata (Ach.) Hertel & Knoph

Western Serbia: 'Debelo Brdo' range, about 25 km from town Bajna Bašta to Valjevo, near village Gmila Priseka, 44°10' N, 19°45' E, 2003, Andreev (LE). Previously recorded from two localities.

**P. soredizodes* (Lam. ex Nyl.) J.R. Laundon

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell 24 214 (UPS).

**P. tuberculosa* (Sm.) Hertel & Knoph in Hertel

Central Serbia: Rudnik Mts, 0.5 km NNE of motel 'Šumska kuća', 44°08' N, 20°30' E, 2006, Savić & Tibell 24 208 (UPS).

Protoblastenia rupestris (Scop.) J. Steiner

Central Serbia: Rudnik Mts, 0.5 km NNE of motel 'Šumska kuća', 44°08' N, 20°30' E, 2006, Savić & Tibell (BEO 3658). Western Serbia: Tara National Park, about 15-20 km W of town Bajna Bašta, 'Perućačko jezero' in Drina gorge, Derventa gorge in Trešnjevac Range S of Kozla, 43°55' N, 19°20' E, 2003, Andreev (LE). Previously recorded from three localities.

Protoparmelia badia (Hoffm.) Hafellner

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell (BEO 3659); Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3687). Previously recorded from three localities.

**Pseudosagedia chlorotica* (Ach.) Hafellner & Kalb

Central Serbia: Rudnik Mts, 0.5 km NNE of motel 'Šumska kuća', 44°08' N, 20°30' E, 2006, Savić & Tibell (BEO 3669, 3673).

Psorotichia schaeereri (A. Massal.) Arnold

Western Serbia: Tara National Park, about 15-20 km W of town Bajna Bašta, 'Perućačko jezero' in Drina gorge, Derventa gorge in Trešnjevac Range S of Kozla, 43°55' N, 19°20' E, 2003, Andreev (LE). Previously recorded from two localities.

**Pycnora praestabilis* (Nyl.) Hafellner

Western Serbia: Mt Zlatibor, 43°44' N, 19°43' E, 2005, Savić & Tibell (BEO 3702).

**Pyrenocollema monense* (Wheldon) Coppins

Central Serbia: Belgrade, 'Košutnjak' Forest Park, 44°46' N, 20°26' E, 2006, Savić & Tibell 24 200 (UPS).

Ramalina obtusata (Arnold) Bitter

Western Serbia: Tara National Park, Kaluđerske bare, Vidikovac Črnješkovu, 43°54' N, 19°40' E, 2003, Andreev (LE). Previously recorded from only one locality.

Rhizocarpon distinctum Th. Fr.

Central Serbia: Mt Ostrovica, close to Rudnik, 1946, Lindtner (as admixture with *Acarospora fuscata*; BEO 726); Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3681). Western Serbia: Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km SW of Kremna, railway 'Šarganska osmica', near station Jatarice on Kamišna, 3 km E of station 'Mokra gora', N slope of the Kozja str. Mt, 44°40' N, 19°35' E, 2003, Andreev (LE). Previously recorded from two localities.

Rh. geminatum Körb.

Central Serbia: 'Brdjani prope Gornji Milanovac', 1946, Lindtner (BEO 719 p.p.). Western Serbia: about 15-20 km S of town Bajna Bašta, 2 km N of 'Mokra gora' railway station, 43°40' N, 19°30' E, 2003, Andreev (LE); Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km SW of Kremna, railway 'Šarganska osmica', near station Jatare, 44°40' N, 19°40' E, 2003, Andreev (LE). Previously recorded from two localities.

Rh. lecanorinum Anders

Western Serbia: 'Debelo Brdo' range, about 25 km from town Bajna Bašta to Valjevo, near village Gmila Priseka, 44°10' N, 19°45' E, 2003, Andreev (LE). Previously recorded from two localities.

Rh. obscuratum (Ach.) A. Massal.

Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3650 p.p.; admixture with *Lecidea fuscoatra*, 3672).). Previously recorded from only one locality.

Rh. petraeum (Wulfen) A. Massal.

Western Serbia: 'Debelo Brdo' range, about 25 km from town Bajna Bašta to Valjevo, near village Gmila Priseka, 44°10' N, 19°45' E, 2003, Andreev (LE). Previously recorded from four localities.

**Rh. reductum* Th. Fr.

Western Serbia: Tara National Park, 25 km W of town Bajna Bašta, 'Perućačko jezero' in Drina gorge, Dolovi river, 44°00' N, 19°15' E, 2003, Andreev (LE).

Rh. viridiatrum (Wulfen) Körb.

Western Serbia: 15-20 km S of town Bajna Bašta, 2 km N of 'Mokra gora' railway station, 43°40' N, 19°30' E, ca 650 m, 2003, Andreev (LE); Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km SW of Kremna, railway 'Šarganska osmica', near station Jatare, 44°40' N, 19°40' E, 2003, Andreev (LE); Šargan Range, SW slope, about 15 km S of town Bajna Bašta, 5-10 km SW of Kremna, railway 'Šarganska osmica', near station Jatarice on Kamišna, 3 km E of station 'Mokra gora', N slope of the Kozja str. Mt, 44°40' N, 19°35' E, 2003, Andreev (LE). Previously recorded from two localities.

**Rhizoplaca melanophthalma* (DC.) Leuckert & Poelt

Central Serbia: 'Brdjani prope Gornji Milanovac, m. Ilijak', 1946, Lindtner (BEO 719).

Rinodina bischoffii (Hepp) A. Massal.

Eastern Serbia: Mt Stara Planina (Balkan), 1999, Savić (BEO 3602b). Previously recorded from only one locality.

**R. calcarea* (Arnold) Arnold

Central Serbia: Rudnik Mts, 0.5 km NNE of motel 'Šumska kuća', 44°08' N, 20°30' E, 2006, Savić & Tibell 24 202 (BEO 3675, UPS).

R. exigua (Ach.) Gray

Central Serbia: 3 km WNW of the village Rudnik, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3622). Previously recorded from four localities.

R. immersa (Körb.) Zahlbr.

Eastern Serbia: vicinity of town Bor, close to the top of Mt 'Veliki Krš', 1997, Savić (BEO 3565). Previously recorded from only one locality.

Rinodinella controversa (A. Massal.) H. Mayrhofer & Poelt

Western Serbia: Tara National Park, Kaluderske bare, Vidikovac Črnješko, 43°54' N, 19°40' E, 2003, Andreev (LE). Previously recorded from only one locality.

Sarcogyne privigna (Ach.) A. Massal.

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell 24 220 (BEO 3663, UPS). Previously recorded from only one locality.

S. regularis Körb.

Western Serbia: Tara National Park, about 15-20 km W of town Bajna Bašta, 'Perućačko jezero' in Drina gorge, Derventa gorge in Trešnjevac Range S of Kozla, 43°55' N, 19°20' E, 2003, Andreev (LE). Previously recorded from three localities.

**Schaereria fuscocinerea* (Nyl.) Clauzade & Cl. Roux

Central Serbia: Mt Golija, 1994 Savić (BEO 1587, admixture with *Cornicularia normoerica*).

**Scoliciosporum sarothamni* (Vain.) Vězda

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell 24 225 (UPS).

S. umbrinum (Ach.) Arnold

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell (BEO 3629, 3632, 3637); Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3650 p.p.; admixture with *Lecidea fuscoatra*). Previously recorded from only one locality.

**Scutula epiblastematica* (Wallr.) Rehm [LF]

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006, Savić & Tibell 24 210 (UPS). On the thallus of *Peltigera horizontalis*; with a *Libertiella* anamorph.

**Solenopsora candicans* (Dicks.) J. Steiner

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3595).

Squamarina cartilaginea (With.) P. James

Eastern Serbia: vicinity of town Bor, river 'Bela reka', 1994, Savić (BEO 1187). Previously recorded from four localities.

Staurothele caesia (Arnold) Arnold

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3576). Previously recorded from only one locality.

S. frustulenta Vain.

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3583). Previously recorded from two localities.

**S. guestphalica* (J. Lahm ex Körb.) Arnold

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3586).

Tephromela grumosa (Pers.) Hafellner & Cl. Roux

Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell (BEO 3689). Previously recorded from only one locality.

Thyrea confusa Henssen

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3589).
Previously recorded from only one locality.

**Toninia diffracta* (A. Massal.) Zahlbr.

Western Serbia: Tara National Park, Kaluđerske bare, Vidikovac
Črnješkov, 43°54' N, 19°40' E, 2003, Andreev (LE).

Trapelia coarctata (Sm.) M. Choisy

Central Serbia: Rudnik Mts, 0.5 km NNE of motel 'Šumska kuća',
44°08' N, 20°30' E, 2006, Savić & Tibell 24 205 (UPS). Previously
recorded from three localities.

**T. involuta* (Taylor) Hertel

Central Serbia: Rudnik Mts, 0.5 km NNE of motel 'Šumska kuća',
44°08' N, 20°30' E, 2006, Savić & Tibell 24 204 (UPS).

**T. obtegens* (Th. Fr.) Hertel

Central Serbia: Rudnik Mts, 0.5 km NNE of motel 'Šumska kuća',
44°08' N, 20°30' E, 2006, Savić & Tibell 24 204 (BEO 3674, UPS,
with *Trapelia involuta*).

Trapeliopsis granulosa (Hoffm.) Lumbsch

Eastern Serbia: Mt Stara Planina (Balkan), 1999, Savić (BEO 3604).
Previously recorded from three localities.

Umbilicaria cylindrica (L.) Delise ex Duby

Eastern Serbia: Mt Stara Planina (Balkan), 1999, Savić (BEO 1253).
Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E,
2006, Savić & Tibell 24 216 (UPS). Previously recorded from only one
locality.

U. deusta (L.) Baumg.

Eastern Serbia: Mt Stara Planina (Balkan), 1999, Savić (BEO 3607).
Previously recorded from only one locality.

U. hirsuta (Sw. ex Westr.) Hoffm.

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006,
Savić & Tibell (BEO 3662); Mt Ostrovica, 44°09' N, 20°27' E, 2006,
Savić & Tibell (BEO 3656). Previously recorded from only one locality.

**U. nylanderiana* (Zahlbr.) H. Magn.

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006,
Savić (BEO 3657) & Tibell 24 215 (UPS).

**Usnea glabrescens* (Nyl. ex Vain.) Vain.

Central Serbia: vicinity of the Belgrad, Mt Avala, Grebenščikov (BEO
553).

Verrucaria caerulea DC.

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3587).
Previously recorded from two localities.

V. calciseda auct.

Eastern Serbia: vicinity of town Bor, 'Prerast', 1994, Savić (BEO 3584).
Previously recorded from five localities.

**V. dolosa* Hepp

Central Serbia: Rudnik Mts, Mt Mali Šturac, 44°08' N, 20°31' E, 2006,
Savić & Tibell 24 209 (UPS).

**Vouauxiella lichenicola* (Linds.) Petr. & Syd. [LF]

Central Serbia: 3 km WNW of the village Rudnik, 44°09' N, 20°27'
E, 2006, Savić & Tibell 24 229 (UPS). On apothecia of *Lecanora
chlarotera*.

Xanthoparmelia somloënsis (Gyeln.) Hale

Central Serbia: Mt Ostrovica, 44°09' N, 20°27' E, 2006, Savić & Tibell
(BEO 3684). Previously recorded from two localities.

Xanthoria candelaria (L.) Th. Fr.

Western Serbia: Mt Zlatibor, 43°44' N, 19°43' E, 2005, Savić & Tibell
(BEO 3697). Previously recorded from four localities.

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