

**SOME NEWLY RECORDED AND NOTEWORTHY
LICHEN-FORMING AND LICHENICOLOUS FUNGI
FROM ROMANIA**

J. VONDRÁK and J. ŠOUN

*Department of Botany, Faculty of Sciences, University of South Bohemia
Branišovská 31, CZ-370 05, České Budějovice, Czech Republic
E-mail: j.vondrak@seznam.cz, jasoun@centrum.cz*

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Sixteen species of lichen-forming and lichenicolous fungi are included in the commented list. Seven species are new to Romania: *Caloplaca flavocitrina*, *Caloplaca polycarpa*, *Caloplaca xerica*, *Lecanora rouxii*, *Polycoccum evae*, *Stigmidium rouxianum* and *Xanthoria calcicola*. General distribution of the species *Caloplaca xerica*, *Lecanora laatokkaensis*, *Lecanora rouxii* (= *Lep-raria flavescens*), *Polycoccum evae* and *Stigmidium rouxianum* is described. Although twice recorded in Romania, *Lecanora laatokkaensis* was not included in either of the two lichen checklists of Romania. *Lecanora bolcana* is a forgotten species in Romania, which was only known as *Lecanora muralis* var. *diffracta* from several old collections.

Key words: Ascomycetes, biodiversity, *Caloplaca*, distribution, lichens, rare species

INTRODUCTION

Most of the presented samples were collected by the first author during the botany excursion to the Retezat Mts in June 2005. Collections from the Retezat Mts will be published elsewhere, however during the trip through the western part of Romania some interesting sites were visited and several noteworthy and new Romanian country records were done. The respective samples come from two localities in the region Banat (the ruin Șoimoș near Lipova, Mt Domogled near Băile Herculane) and one site in the region Hunedoara (Deva). Some samples were collected by the second author, who visited Romanian Dobrudja in August 2005 (Culmea Pricopanului in Măcin Mts).

The vouchers are currently deposited in the herbarium CBFS and a private herbarium of J. Šoun. Species new to Romania are indicated by an asterisk before the name.

THE SPECIES

Lichen-forming fungi

Aspicilia intermutans (Nyl.) Arnold – Munții Măcin Mts; Brăila, Măcin, on top of hill with former quarry ca 1 km SW from Mt Cheia (Culmea Pricopanului), ca 2 km NE of town Măcin, on siliceous outcrop, 28 August 2005, coll. J. Šoun (Herb. J. Šoun 82). – In the Catalogue of lichens in Romania (Ciurchea 1998), it is included within closely related *Aspicilia cinerea* (L.) Körb. and is cited from jud. Botoșani: Liveni (Burlacu 1969) and jud. Sibiu: Valea Bâlii and Valea Doamnei (Ciurchea and Codoreanu 1967). The record from Dobrudja (Moruzi and Mantu 1966) is not included in the catalogue. *Aspicilia intermutans* is a thermophilous species abundant in the Mediterranean region and probably overlooked in warm areas of Romania. It differs from *A. cinerea* in the size of ascospores and the length of pycnospores (Clauzade and Roux 1985).

**Caloplaca flavocitrina* (Nyl.) H. Olivier – Munții Zărandului Mts; Arad, Lipova, Șoimoș, around ruin of castle Șoimoș, on bark of *Morus* and *Robinia pseudacacia*, 21 June 2005, coll. J. Vondrák (CBFS 3609, 3733, 3970). – This species has not been distinguished from *Caloplaca citrina* (Hoffm.) Th. Fr. by most authors, even in the last years. However, Arup (2006) confirmed this taxon by means of molecular methods. The modern checklists by Coppins (2002) and Diederich and Sérusiaux (2000) also consider *C. flavocitrina* as a separate species.

Caloplaca granulosa (Müll. Arg.) Jatta – Munții Banatului Mts; Băile Herculane, slope of Mt Domogled, on limestone outcrop, 28 June 2005, coll. J. Vondrák (CBFS 3665). – In Romania, the species has only been known from Apuseni Mts and Munții Piatra Craiului (Moruzi *et al.* 1967).

Caloplaca grimmiae (Nyl.) H. Olivier – Munții Zărandului Mts; Arad, Lipova, Șoimoș, around ruin of castle Șoimoș, on siliceous rock, parasitic on *Candelariella vitellina* (Hoffm.) Müll. Arg., 21 June 2005, coll. J. Vondrák (CBFS 3750). – Specifically parasitic in thalli of *Candelariella vitellina*, this species frequently occurs in warmer European areas with siliceous rocks. In Romania, it has only been recorded from Bucegi Mts (Zamfir *et al.* 1998).

Caloplaca inconnexa (Nyl.) Zahlbr. – Munții Banatului Mts; Băile Herculane, slope and top of Mt Domogled, on limestone outcrop, 28 June 2005, coll. J.

Vondrák (CBFS 3637, 3697). – The species has only been recorded from the Ada-Kaleh island on Danube near Orșova in the Banat Mts growing parasitically on *Verrucaria* on mortar and bricks (Moruzi and Toma 1973). The locality was afterwards submerged by the Iron Gates hydro plant. The size of ascospores in the sample differs from literature: 16–18 × 8–10 μm (Moruzi and Toma 1973) vs. 11–14 × 6–7 μm (Poelt 1969), thus the respective specimen needs to be re-examined.

Caloplaca obscurella (Körb.) Th. Fr. – Munții Zărandului Mts; Arad, Lipova, Șoimoș, around ruin of castle Șoimoș, on bark of *Robinia pseudacacia* and *Ulmus minor*, 21 June 2005, coll. J. Vondrák (CBFS 3626, 3713, 3728). – The collected samples are sterile with abundant crater-like soralia. In the sterile stage, *Caloplaca obscurella* is hardly distinguishable from *C. ulcerosa* Coppins et P. James (Arup and Ekman 1991), thus these specimens may represent the latter species. *C. obscurella* has only been known from the region Hunedoara: Munții Sebeșului (Moruzi *et al.* 1967, Ciurchea 1998).

**Caloplaca polycarpa* (A. Massal.) Zahlbr. – Munții Banatului Mts; Băile Herculane, slope of Mt Domogled, on limestone outcrop, parasitic on *Verrucaria* cf. *calciseda* and *Caloplaca variabilis* (Pers.) Müll. Arg., 28 June 2005, coll. J. Vondrák (CBFS 3534, 3995). – This species with rather southern distribution in Europe is a common inhabitant of limestone rocks, being facultatively parasitic on crustose lichens, mainly *Verrucaria* sp.

**Caloplaca xerica* Poelt et Vězda – Munții Poiana Ruscă Mts; Deva, E-oriented slopes of hill with castle ruin above town, on base-rich siliceous rock, 21 June 2005, coll. J. Vondrák (CBFS 3556, 3960); Munții Zărandului Mts; Arad, Lipova, Șoimoș, around ruin of castle Șoimoș, on base-rich siliceous rock, 21 June 2005, coll. J. Vondrák (CBFS 3647). – Despite being a common species of the warmer European regions with base-rich siliceous rocks, its distribution is still very insufficiently known: Austria (cf. Hafellner and Türk 2001), Bulgaria (Vondrák and Slavíková-Bayerová 2006), the Czech Republic (Poelt 1975), Greece: Crete (Vondrák *et al.* 2008), Italy (cf. Nimis 2003), Macedonia (Poelt 1975), Spain (cf. Llimona and Hladun 2001), Slovakia (Vondrák, unpublished data), Switzerland (Poelt 1975) and Ukraine: Crimean Peninsula (Khodosovtsev 2002). Apart from Europe, it is known from SW Turkey (Nimis and John 1998) and from two sites in Pakistan: Karakoram and NW Himalaya (Poelt and Hinteregger 1993). In most countries, only one or few records are known.

Dirina stenhammari (Stenham.) Poelt et Follm. – Munții Banatului Mts; Băile Herculane, slope of Mt Domogled, on limestone underhang, 28 June 2005, coll. J. Vondrák (CBFS 3651). – The species has only been known from one site in Romania so far: Apuseni Mts (Ciurchea 1998).

Lecanora bolcana (Pollini) Poelt (syn.: *Lecanora muralis* var. *diffracta* (Ach.) Rabenh.) – Munții Măcin Mts; Brăila, Măcin, on top of hill with former quarry ca 1 km SW from Mt Cheia (Culmea Pricopanului), ca 2 km NE of town Măcin, on siliceous outcrop, 28 August 2005, coll. J. Šoun (Herb. J. Šoun 81). – Under the name *L. muralis* var. *diffracta* the species is known from Romania: regions Banat, Hunedoara and Mureș (Moruzi *et al.* 1967). Here we present the first record from the region Dobruđa. The occurrence of this species in Romania has been rather forgotten, because the name *L. bolcana* established already in 1958 is not mentioned in any Romanian literature on lichens. Poelt (1958) reported the northernmost Balkan occurrence of this species in Bulgaria, Montenegro, and Serbia. The respective Romanian specimen was found morphologically identical with the exsiccate sample of *L. bolcana* (Vězda: Lich. sel. exs. 542!, Vězda 1967).

Lecanora laatokkaensis (Räsänen) Poelt – Munții Zărandului Mts; Arad, Lipova, Șoimoș, around ruin of castle Șoimoș, on siliceous rock with *Buellia aethalea* (Ach.) Th. Fr., 21 June 2005, coll. J. Vondrák (CBFS 3986, sub *Protoparmelia montagnei* (Fr.) Sancho et A. Crespo). – Although this species is absent from the catalogues of lichens in Romania (Moruzi *et al.* 1967, Ciurchea 1998), it was collected by Vězda in 1971 in Dobruđa, distr. Tulcea (Vězda: Lich. sel. exs. 1011!, Vězda 1971) and by Lojka in 1872 on the same locality as we did: “Solymos (= Șoimoș) bei Radna a. d. Maros” (Poelt 1958). *L. laatokkaensis* has a very disjunctive distribution: Karelia and Finland in the north, and several diffused occurrences in the Balkan, the Mediterranean, and the Alps (Poelt 1958). It was lately discovered in North America (Ryan and Nash 1993).

**Lecanora rouxii* S. Ekman et Tønsberg (syn.: *Lepraria flavescens* Clauzade et Cl. Roux). – Munții Banatului Mts; Băile Herculane, slope of Mt Domogled, on vertical side of limestone outcrop, 28 June 2005, coll. J. Vondrák (CBFS 3528). – This is a conspicuous, easily recognisable species with almost lobate thalli, more effigurate than in the similar *L. nivalis* J. R. Laundon, reacting K+ yellowish and KC+, C+ and P+ yellow. Based on molecular data (Grube *et al.* 2004), this *Lepraria*-like lichen must be placed into the genus *Lecanora*. Its distribution in Europe is still very little known: Austria: Styria, Tyrolia (cf. Hafellner and Türk 2001), Belgium (Sérusiaux *et al.* 1999), France (cf. Sérusiaux *et al.* 1999), SW Germany (Wirth 1995), Italy (Nimis and Tretiach 1999), Norway: Sør-Trøndelag (Tønsberg 2002), Poland: Tatra Mts (Bielczyk 1997), Slovakia: Muráňska Planina (Guttová and Palice 1999, 2004), Sweden: Gotland (cf. Santesson *et al.* 2004), and Ukraine: Crimean Peninsula (Khodosovtsev *et al.* 2007). Outside Europe, it is probably known only from SW Turkey (John *et al.* 2000).

Rinodina pityrea Ropin et H. Mayrhofer – Munții Zărandului Mts; Arad, Lipova, Șoimoș, around ruin of castle Șoimoș, on bark of *Morus*, with *Caloplaca flavocitrina* (Nyl.) H. Olivier, 21 June 2005, coll. J. Vondrák (CBFS 3608). – As

the species was previously recorded only once on a concrete wall in Banat: Nădlac, distr. Arad (Vondrák 2004), this is the first corticolous record in Romania. It is certainly more widespread in Romania.

**Xanthoria calcicola* Oxner – Munții Zărandului Mts; Arad, Lipova, Șoimoș, around ruin of castle Șoimoș, on lime-rich siliceous rock, 21 June 2005, coll. J. Vondrák (CBFS 3624). – Although very rare in Central Europe (e.g. Guttová and Lackovičová 2004, Kocourková-Horáková 1998), this species is common in suitable habitats; coastal rocks and inland lime-rich siliceous rocks in Bulgaria (Vondrák 2006a). It is certainly more widespread in Romania.

Lichenicolous fungi

**Stigidium rouxianum* Calatayud et Triebel – Munții Banatului Mts; Băile Herculane, slope of Mt Domogled, on limestone outcrop, parasitic on thallus and apothecia of *Acarospora cervina* A. Massal., 28 June 2005, coll. J. Vondrák (CBFS 3699). – The species is only known from few sites in France, Italy, Spain, Switzerland (Calatayud and Triebel 2003), the Czech Republic (Vondrák 2006b) and Ukraine (Bielczyk *et al.* 2005).

**Polycoccum evae* Calatayud et V. J. Rico – Munții Măcin Mts; Brăila, Măcin, on top of hill with former quarry ca 1 km SW from Mt Cheia (Culmea Pricopanului), ca 2 km NE of town Măcin, on siliceous outcrop, parasitic in thallus of *Dimelaena oreina* (Ach.) Norman, 28 August 2005, coll. J. Šoun (Herb. J. Šoun 80). – This species has only been known from the type locality in central Spain (Atienza *et al.* 2003), and from North America (Hafellner *et al.* 2002). Such large disjunctions are probably caused by poorly known distribution data.

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