

## Selected exsiccates of *Caloplaca*, Fasc. 3 (Nos 51–75)

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**Abstract:** Fascicle 3 of '*Selected exsiccates of Caloplaca*' comprises 25 collections of lichens from the following countries: Bulgaria (3), the Czech Republic (1), France (2), Greece (5), Italy (1), Kazakhstan (1), Romania (1), Russia (7), Turkey (1), and Ukraine (3). Isotype material of *Caloplaca syvashica* and paratypes of *Caloplaca neotaurica* and *Caloplaca skii* are distributed. All samples were identified by the author. ITS fingerprinting was carried out on the following collections: 51. *Caloplaca aractina*, 52. *Caloplaca arnoldii* subsp. *arnoldii*, 54. *Caloplaca communis*, 55. *Caloplaca concreticola*, 57. *Caloplaca diphyodes*, 64. *Caloplaca lucifuga*, and 68. *Caloplaca obscurella*.

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The exsiccate collection '*Selected exsiccates of Caloplaca*' is aimed at the distribution of samples of the genus *Caloplaca* (Teloschistales, lichenized fungi) from all over the world. Although modern molecular phylogenetic studies find the genus *Caloplaca* paraphyletic, the classical conception used in most recent checklists is followed here.

'*Selected exsiccates of Caloplaca*' is distributed on exchange basis to the following 15 herbaria and private collections: ASU, B, C, CANB, CBFS, F, GZU, H, LE, M, MIN, PRA, TNS, UPS, herb. Lendemer (herbarium acronyms are listed in the Index Herbariorum site <http://sweetgum.nybg.org/ih/>). Contributions to this exsiccate collection are welcome.

Abbreviations of authors of plant names are taken from <http://www.ipni.org/index.html>. Names of countries and regions are given in English. Names of municipalities are in local languages, but names in Cyrillic are phonetically transcribed to the Latin alphabet.

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Fritschiana 74: 49–57.

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### 51. *Caloplaca aractina* (Fr.) Häyrén (1914)

Bas.: *Parmelia aractina* Fr. (1825)

ITALY. Sardinia: Santa Teresa Gallura, coastal cliffs N of the town, alt. 0–30 m, 41°14'50"N, 9°11' 36"E.

Saxicolous on horizontal, sun-exposed faces of coastal rocks, in supralittoral zone.

Notes: Coastal populations of Atlantic and W-Mediterranean regions are morphologically similar to inland populations, recently called *Caloplaca viridirufa*, but their ecology is quite different: exposed rock faces in coastal habitats versus sheltered rock faces in inland habitats. Also ITS phylogeny separates coastal and inland populations into different clades (unpublished).

30.4.2012

leg. Jiří Malíček, Ivan Frolov, Jan Vondrák, det. Jan Vondrák

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### 52. *Caloplaca arnoldii* subsp. *arnoldii* (Wedd.) Zahlbr. ex Ginzb. (1915)

Bas.: *Lecanora arnoldii* Wedd. (1876)

GREECE. Poros Island: Poros, limestone outcrops in the northern part of the island, alt. about 200 m, 37°31'28"N, 23°29'10"E.

Saxicolous on vertical face of limestone outcrop, below overhang, in open pine forest.

Note: Identification confirmed by ITS fingerprinting.

31.10.2010

leg. Olga Vondráková & Jan Vondrák, det. Jan Vondrák

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### 53. *Caloplaca atroflava* (Turner) Mong. (1914)

Bas.: *Lecidea atroflava* Turner (1808)

FRANCE. Maritime Alps: Menton, Breil-sur-Roya, La Brigue, rocks in the valley of the brook La Levensa, alt. about 1100 m, 44°04'02"N, 7°38'17"E.

Saxicolous on sun-exposed nutrient-rich flat sandstone blocks, partly immersed in the soil.

28.4.2012

leg. Jiří Malíček, Ivan Frolov, Jan Vondrák, det. Jan Vondrák

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#### **54. *Caloplaca communis* Vondrák, Říha, Arup & Søchting (2009)**

KAZAKHSTAN. Mangistau region: Tupkaragan district, Caspian Sea coast, between Fort Shevchenko and Aktau, village Saura, rocky valley of the river Saura, alt. 0–100 m, 44°13' 53"N, 50°48'13"E.

Saxicolous on soft limestone coastal cliff.

Notes: *Caloplaca communis* is one of the few maritime lichens at coastal rocks of the Caspian Sea. The ITS sequence of the Caspian sample is identical with some of the Black Sea coast.

3.6.2009 leg. Olga Vondráková, Alexander Khodosovtsev & Jan Vondrák,  
det. Jan Vondrák

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#### **55. *Caloplaca concreticola* Vondrák & Khodos. (2008)**

RUSSIA. Orenburg region: 15 km NE of Orenburg, village Grebeni, on a hill W of the village, alt. 120–160 m, 51°56'28"N, 55°16'48"E.

Saxicolous on sandstone blocks and pebbles on SE-exposed slope covered by shrubby steppe.

Note: Identification confirmed by ITS fingerprinting.

7.6.2011 leg. Ivan Frolov & Jan Vondrák, det. Jan Vondrák

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#### **56. *Caloplaca decipiens* (Arnold) Blomb. & Forssell (1880)**

Bas.: *Physcia decipiens* Arnold (1867)

RUSSIA. Orenburg region: 30 km SSE of Orenburg, village Mikhaylovka, Bukabayskie yari, about 3 km E of the village, rocky slopes above the brook Bukabay, alt. about 200 m, 51°25'2.97"N, 55°24'8.04"E.

Saxicolous on SE-exposed calcareous sandstone outcrops in steppe.

6.6.2011 leg. Olga Vondráková, Ivan Frolov & Jan Vondrák, det. Jan Vondrák

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### 57. *Caloplaca diphyodes* (Nyl.) Jatta (1900)

Bas.: *Lecanora diphyodes* Nyl. (1872)

RUSSIA. Orenburg region: surroundings of the water reservoir “Iriklienskoe vodokhranilishche”, village Chapaevka, limestone rocks on the opposite slope of the lake NW of the village, alt. 270–290 m, 52°5'14"N, 58°48'9"E.

Saxicolous on E-exposed, slightly inclined limestone rocks in steppe.

Notes: In Northern Europe or in other European mountain regions, *Caloplaca diphyodes* rarely occurs on siliceous rocks close to rivers or lakes, but the same species is very common on dry and sunny limestone outcrops on the foothills of the SE Ural. ITS and  $\beta$ -tubulin sequences unite European and Ural populations into one clade (unpublished).

12.6.2011

leg. Ivan Frolov & Jan Vondrák, det. Jan Vondrák

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### 58. *Caloplaca epithallina* Lynge (1940)

RUSSIA. Republic of Bashkortostan: surroundings of the water reservoir “Iriklienskoe vodokhranilishche”, village Tashtugay, rocks in the valley of the river Tanalik, about 4 km S of the village, alt. 260–300 m, 51°56'13"N, 58°35'15"E.

Saxicolous on volcanic rock in steppe, lichenicolous on *Rhizoplaca* cf. *subdiscrepans*.

Note: Strictly host specific to *Rhizoplaca subdiscrepans*.

10.6.2011

leg. Ivan Frolov & Jan Vondrák, det. Jan Vondrák

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### 59. *Caloplaca epithallina* Lynge (1940)

RUSSIA. Republic of Altay: Kosh-Agach district, Kuray Steppe, limestone and gneiss hills, about 4 km W of Kuray, alt. 1470–1680 m, 50°14'N, 87°52'E.

Saxicolous on siliceous outcrops in steppe, lichenicolous on various lichens.

Note: Prefers *Dimelaena oreina* as its host, but also occurs on *Acarospora* sp., *Lecanora muralis*, *Neofuscelia* sp., *Rhizoplaca chrysoleuca*, etc.

31.10.2010

leg. Ivan Frolov & Jan Vondrák, det. Jan Vondrák

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### **60. *Caloplaca ferruginea* (Huds.) Th.Fr. (1861)**

Bas.: *Lichen ferrugineus* Huds. (1762)

GREECE. Peloponnese: Menalo Mountains, Tripolis, Kardaras, *Abies cephalonica* forest, along the road between Kardaras and Vytina, alt. about 1200 m, 37°37'N, 22°16'E.

Corticolous on twigs of *Abies cephalonica*.

27.10.2010

leg. Olga Vondráková & Jan Vondrák, det. Jan Vondrák

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### **61. *Caloplaca ferrugineoides* H.Magn. (1944)**

RUSSIA. Astrakhan region: Akhtubinsk district, village Nizhniy Baskunchak, shrub-by steppes at the salt lake Baskunchak, at sea level, 48°12'13"N, 46°49'39"E.

Corticolous on low shrubs in steppe.

10.6.2012

leg. Olga Vondráková, Alexander Khodosovtsev & Jan Vondrák,  
det. Jan Vondrák

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### **62. *Caloplaca irrubescens* (Arnold) Zahlbr. (1898)**

Bas.: *Callopisma aurantiacum* var. *irrubescens* Arnold (1879)

FRANCE. Maritime Alps: Menton, Breil-sur-Roya, La Brigue, rocks in the valley of the brook La Levensa, alt. about 1000 m, 44°04'02"N, 7°38'17"E.

Saxicolous on yellow sandstone inclusion in S-exposed limestone rock.

28.4.2012

leg. Jiří Malíček, Ivan Frolov, Jan Vondrák, det. Jan Vondrák

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### **63. *Caloplaca irrubescens* (Arnold) Zahlbr. (1898)**

Bas.: *Callopisma aurantiacum* var. *irrubescens* Arnold (1879)

GREECE. Peloponnese: Methana, Kameni Chora, volcanic hills NW of the village, alt. 200–300 m, 37°37'3"N, 23°19'37"E.

Saxicolous on volcanic stones in open pine forest.

29.10.2010

leg. Olga Vondráková & Jan Vondrák, det. Jan Vondrák

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### **64. *Caloplaca lucifuga* G.Thor (1988)**

CZECH REPUBLIC. South Bohemia: České Budějovice, Hluboká nad Vltavou, protected woodland area Karbanice in Vltava river valley, around 4.5 km N of the town, alt. 370 m, 49°5'49"N, 14°27'52"E.

Corticolous on bark of *Quercus robur*.

Note: Apothecia were never observed in this sorediate species. Its placement into Teloschistaceae was confirmed by ITS sequences (unpublished).

19.6.2010

leg. Jan Vondrák, det. Jan Vondrák

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### **65. *Caloplaca neotaurica* Vondrák, Khodos., Arup & Søchting (2012)**

- PARATYPE -

UKRAINE. Crimean Peninsula: Alushta, Kanakskaya balka botanical reserve, waterless ravine, alt. about 30 m, 44°46'51.98"N, 34°38'02.97"E.

Saxicolous on claystone pebbles.

Note: Rare phenotype with grey-black apothecia without anthraquinones.

15.6.2008

leg. Alexander Khodosovtsev & Jan Vondrák, det. Jan Vondrák

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### **66. *Caloplaca neotaurica* Vondrák, Khodos., Arup & Søchting (2012)**

- PARATYPE -

UKRAINE. Crimean Peninsula: Sudak, near the village Dachne, alt. about 150 m, 44°53'N, 34°59'E.

Saxicolous on schist pebbles in open scrubland.

Note: Common phenotype with orange-red apothecia with anthraquinones.

22.6.2008

leg. Alexander Khodosovtsev & Jan Vondrák, det. Jan Vondrák

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### **67. *Caloplaca obscurella* (J.Lahm ex Körb.) Th.Fr. (1871)**

Bas.: *Blastenia obscurella* J. Lahm 1860

RUSSIA. Black Sea coast: Tuapse, alley of *Platanus* in Lazarevskoye, alt. 10 m, 43°55'49"N, 39°18'28"E.

Corticolous on bark of *Platanus*.

Note: Population with relatively few soralia but unusually rich in apothecia.

16.5.2007

leg. Jan Vondrák & Jaroslav Šoun, det. Jan Vondrák

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### **68. *Caloplaca obscurella* (J.Lahm) Th.Fr. (1871)**

Bas.: *Blastenia obscurella* J. Lahm 1860

BULGARIA. Pirin Mountains (foothills): Sandanski, at the road between Laskarevo and Melnik, alt. about 200 m, 41°29'N, 23°20'E.

Corticolous on bark of solitary *Robinia pseudacacia*.

Note: Sterile, but extensive and richly sorediate crust; its identification was confirmed by ITS sequence.

10.10.2010

leg. Olga Vondráková & Jan Vondrák, det. Jan Vondrák

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### **69. *Caloplaca peludella* (Nyl.) Hasse (1913)**

Bas.: *Lecanora peludella* Nyl. (1898)

GREECE. Meteora: Kalampaka, conglomerate towers NE of the town, alt. 400–500 m, 39°42'46"N, 21°37'55"E.

Saxicolous on horizontal faces of sun-exposed conglomerate terraces.

Notes: Although this name is usually spelled '*Caloplaca pelodella*' or '*C. pellodella*', I prefer the original spelling, based on *Lecanora peludella* Nyl. in Hasse 1898: 10. - The similar *Caloplaca xerica* is intermixed in some samples!

22.10.2010

leg. Olga Vondráková & Jan Vondrák, det. Jan Vondrák

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### 70. *Caloplaca phaeothamnos* Kalb & Poelt (1985)

TURKEY. Kurdistan: Lake Van, lava stream 7 km W of Ünseli, alt. 1670 m, 38°59' 49"N, 43°30'1"E.

Muscicolous in moss cushions on volcanic boulders in steppe.

11.5.2007 leg. Jan Vondrák & Jaroslav Šoun, det. Jan Vondrák

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### 71. *Caloplaca rubelliana* (Ach.) Lojka (1873)

Bas.: *Lecanora rubelliana* Ach. 1810

GREECE. Peloponnese: Methana, Kameni Chora, volcanic hills NW of the village, alt. 200–300 m, 37°37'3"N, 23°19'37"E.

Saxicolous on volcanic stones in open pine forest.

29.10.2010 leg. Olga Vondráková & Jan Vondrák, det. Jan Vondrák

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### 72. *Caloplaca skii* Khodos., Vondrák & Šoun (2012) - PARATYPE -

BULGARIA. Black Sea coast: Burgas, 5.5 km S of Sozopol, sand dunes near the seashore, at sea level, 42°21'59"N, 27°42'31"E.

Corticolous on bark of Asclepiadaceae shrub.

9.4.2007 leg. Jan Vondrák & Jaroslav Šoun, det. Jan Vondrák

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### 73. *Caloplaca skii* Khodos., Vondrák & Šoun (2012)

ROMANIA. Dobruja: Tulcea, Popina Island (Insula Popina) in Razim Lake (Lacul Razim), E coast, alt. 0–20 m, 44°58'03"N, 28°58'57"E.

Corticolous on low shrubs in steppe.

3.4.2012 leg. Jan Vondrák & Jaroslav Šoun, det. Jan Vondrák



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**74. *Caloplaca syvashica* Khodos., Vondrák  
& Šoun (2012)**

- ISOTYPE -

UKRAINE. Crimean Peninsula: Sivash lake, Krasnoperekopsk, Nadezhdino, salt marshes at a small, shallow gulf S of the village, at sea level, 46°01'48"N, 33°59'43"E.

Corticolous on woody stems of *Limonium suffruticosum*.

8.6.2006

leg. Jan Vondrák, det. Jan Vondrák

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**75. *Caloplaca xerica* Poelt & Vězda (1975)**

BULGARIA. Stara Planina Mountains: Sofia, Novi Iskar, in the valley of the river Iskar, N of the town, alt. 600 m, 42°50'28"N, 23°21'44"E.

Saxicolous on sandstone outcrop in forest-steppe.

21.10.2010

leg. Olga Vondráková & Jan Vondrák, det. Jan Vondrák