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## Lichenological observations in Upper Lusatia II

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### Abstract

Further remarkable lichen findings from Polish and German Upper Lusatia are communicated. New to Germany is *Bacidia brandii*, new to Poland are *Macentina abscondita* and *Micarea viridileprosa*, new to Saxony are *Bacidia adastrae* and *Sarcosagium campestre*. The occurrence of some regionally remarkable epiphytes in the Polish part of the area might benefit from the less monotonous structure of the Polish compared with the Saxon forests.

### Zusammenfassung

**Lichenologische Beobachtungen in der Oberlausitz II** – Es werden weitere bemerkenswerte Flechtenfunde aus polnischer und deutscher Oberlausitz mitgeteilt. Neu für Deutschland ist *Bacidia brandii*, neu für Polen sind *Macentina abscondita* und *Micarea viridileprosa*, neu für Sachsen sind *Bacidia adastrae* und *Sarcosagium campestre*. Einige regional bemerkenswerte Vorkommen von Epiphyten im polnischen Teil des Gebietes könnten durch die weniger monotone Struktur der polnischen im Vergleich zu den sächsischen Wäldern begünstigt sein.

### Streszczenie

**Lichenologiczne obserwacje w Górnych Łużycach II** – Wymieniają się dalsze ciekawe znaleziska porostów z polskich i niemieckich Górnych Łużyc. W pierwszy raz w Niemczech była znajdowana *Bacidia brandii*, w pierwszy raz w Polsce *Macentina abscondita* i *Micarea viridileprosa*, w pierwszy raz w Saksonji *Bacidia adastrae* i *Sarcosagium campestre*. Niektóre niepowседневne znaleziska epifitów w polskiej części obszaru mogłyby tłumaczyć się mniej monotonna strukturą polskich w porównaniu z saksońskimi lasami.

Keywords: Upper Lusatia, Sudetes, lichens, sensitive epiphytes, air pollution

### 1. Introduction

Continuing the communications of OTTE (2003), some lichen records from German and Polish Upper Lusatia are presented and briefly commented. They are either new to larger areas, or rare or have been rarely found so far in our region.

## 2. Materials and Methods

During five excursions in 2004, the lichen flora of selected grid units (quarters of traditional German Ordnance maps) of German and Polish Upper Lusatia was recorded. The more remarkable taxa are listed below. As far as not otherwise indicated, specimens have been deposited in GLM.

For an easier assignment of the collecting sites to state territories, these are indicated by D = Germany and P = Poland respectively.

## 3. Results

A number of species were found that had not been recorded from Germany, Poland or Saxony before, as indicated below. Furthermore, there are records from the Polish Sudetes of species, which were not mentioned by KOSSOWSKA (2003). In addition, some pollution-sensitive epiphytes and other species that have been rarely found in Upper Lusatia in recent decades were detected:

*Agonimia tristicula* (Nyl.) Zahlbr.

4957/42 P: slope below castle Czocha (Tzschocha), on old *Acer pseudoplatanus* (natural monument); 07/2004

This species is not mentioned for the Polish Sudetes by KOSSOWSKA (2003).

*Anisomeridium macrocarpum* (Körber) V. Wirth

4957/42 P: near castle Czocha (Tzschocha), on the base of old *Acer pseudoplatanus*; 07/2004

This species is not mentioned for the Polish Sudetes by KOSSOWSKA (2003).

*Anisomeridium nyssaegenum* (Ellis & Everh.) R. C. Harris

4957/21 P: Lubański Wielki Las (Laubaner Hohwald), moist forest near the »Lehm-chaussee«, on old *Acer pseudoplatanus*; 03/2004

This species is not mentioned for the Polish Sudetes by KOSSOWSKA (2003).

*Arthonia spadicea* Leight.

4957/42 P: near castle Czocha (Tzschocha), on the base of old *Acer pseudoplatanus*; 07/2004

According to KOSSOWSKA (2003), this species is »near threatened« in the Polish Sudetes.

*Bacidia adastrae* Sparrius & Aptroot

4551/33 D: by a meadow SW Michalken, on *Sambucus nigra*; 11/2004

4857/43 P: Lubań (Lauban), Park na Kamiennej Górze (Steinbergpark), on *Acer platanoides*; 03/2004

According to FEUERER (2004b), this only recently (SPARRIUS & APTROOT 2003) described taxon so far was not known from Saxony. Furthermore, it is not mentioned from Poland by FEUERER (2004a), but in the meantime it was discovered in NE Poland by KUBIAK & SPARRIUS (2004).

*Bacidia brandii* Coppins & van den Boom

4855/24 D: town of Görlitz, waste land »An der Weißen Mauer«, open ruderal site, with *Steinia geophana*; 03/2004 (Herb. Otte)

According to WIRTH (2004) this taxon so far was not known from Germany. Due to its dark red-brown hypothecium and hyaline excipulum, this only recently described (COPPINS & VAN DEN BOOM 2002), terricolous species resembles *B. arnoldiana* Körb., from which it differs by its substrate, its smaller apothecia, hymenium and spores, and particularly by its granular thallus, which is not dissolved into goniocysts.

*Chaenotheca chrysocephala* (Turner ex Ach.) Th. Fr.

4957/21 P: Lubański Wielki Las (Laubaner Hohwald), moist forest near the »Lehm-chaussee«, on old *Acer pseudoplatanus*; 03/2004

According to KOSSOWSKA (2003), this species is »vulnerable« in the Polish Sudetes.

*Chaenotheca furfuracea* (L.) Tibell

4957/42 P: near castle Czocha (Tzschocha), in basal cavity of old *Acer platanoides*; 07/2004  
According to KOSSOWSKA (2003), in the Polish Sudetes data on threat of this species are deficient.

*Chaenotheca stemonea* (Ach.) Müll. Arg

4957/21 P: Lubański Wielki Las (Laubaner Hohwald), near forest road somewhat W of the »Lehmchaussee«, on old *Quercus*; 03/2004

According to KOSSOWSKA (2003), this species is »endangered« in the Polish Sudetes.

*Chaenotheca trichialis* (Ach.) Th. Fr.

4957/21 P: Lubański Wielki Las (Laubaner Hohwald), near forest road somewhat W of the »Lehmchaussee«, on old *Quercus*; 03/2004

4957/42 P: near castle Czocha (Tzschocha), in basal cavity of old *Acer platanoides*; 07/2004  
According to KOSSOWSKA (2003), this species is »endangered« in the Polish Sudetes.

*Cladonia crispata* (Ach.) Flot.

4654/43 D: wayside between the ponds E Petershain & the Sandschenke; 04/2004

A rare species on poor, sandy soil that has not been found in neighbouring Brandenburg during the last decade (OTTE & RÄTZEL 2004).

*Lecanora argentata* (Ach.) Malme

4957/21 P: Lubański Wielki Las (Laubaner Hohwald), forest road W of the »Lehm-chaussee«, at road junction on *Fraxinus*; 03/2004

Rather remarkable finding of this pollution-sensitive species that had not been observed over a wide area during the last few decades. However, based upon its microscopic characters, the material doubtlessly has to be placed here (clear red-brown epihymenium without any inspersion or epipsamma; amphithecial crystals large; spore wall up to 1 µm, apothecial margin P-). Most of the material was left at its stand. This species is not mentioned for the Polish Sudetes by KOSSOWSKA (2003).

*Lecidella elaeochroma* (Ach.) M. Choisy

4957/21 P: Lubański Wielki Las (Laubaner Hohwald), forest road W of the »Lehmchaussee«, at road junction on *Fraxinus*; 03/2004

This species was frequent in the past, but nowadays it has disappeared over a wide area. For example, it is not mentioned for Saxon Upper Lusatia by GNÜCHTEL (1997), nor for the Polish Sudetes by KOSSOWSKA (2003).

*Macentina abscondita* Coppins & Vězda

4957/21 P: Lubański Wielki Las (Laubaner Hohwald), at forest road leading from the »Lehmchaussee« to the west, on *Sambucus nigra*; 03/2004

According to FEUERER (2004a), this species had not been found before in Poland.

*Micarea viridileprosa* Coppins & van den Boom

4957/21 P: Lubański Wielki Las (Laubaner Hohwald), on slope at the »Lehmchaussee« (forest road); 03/2004

According to FEUERER (2004a), this only recently described (VAN DEN BOOM & COPPINS 2001) species had not been found before in Poland.

*Opegrapha vermicellifera* (Kunze) J. R. Laundon

4957/42 P: near castle Czocha (Tzschocha), in basal cavity of old *Acer platanooides* and on the base of old *Acer pseudoplatanus*; 07/2004

This species is not mentioned for the Polish Sudetes by KOSSOWSKA (2003). In Poland it is regarded as »endangered« by CIEŚLIŃSKI et al. (2003).

*Phaeophyscia endophoenicea* (Harm.) Moberg

4957/42 P: slope below castle Czocha (Tzschocha), on old *Acer pseudoplatanus* (natural monument); 07/2004

According to CIEŚLIŃSKI et al. (2003), this species is regarded as »endangered« in Poland. According to KOSSOWSKA (2003), so far it was not known from the Polish Sudetes.

*Phlyctis argena* (Spreng.) Flot.

4957/21 P: Lubański Wielki Las (Laubaner Hohwald), moist forest near the »Lehmchaussee«, on old *Acer pseudoplatanus*; 03/2004

4957/42 P: slope below castle Czocha (Tzschocha), on old *Acer pseudoplatanus* (natural monument); 07/2004

This species is not mentioned as threatened in the Red List of lichens of the Polish Sudetes (KOSSOWSKA 2003), but according to the author's own observations its occurrences are rather scattered today, at least in the western Sudetes.

*Sarcosagium campestre* (Fr.) Poetsch & Schiederm.

4855/24 D: town of Görlitz, wasteland »An der Weißen Mauer«, open, ruderal site, with *Steinia geophana*; 03/2004 (Herb. Otte)

An ephemeral lichen of the winter half year (see GILBERT 2004). According to FEUERER (2004b), so far it was not known from Saxony.

*Steinia geophana* (Nyl.) Stein

4855/24 D: town of Görlitz, wasteland »An der Weißen Mauer«, open, ruderal site; 03/2004 (Herb. Otte)

According to GNÜCHTEL (1997), data regarding distribution of this species in Saxony are deficient.

*Veizdaea aestivalis* (Ohlert) Tscherm.-Woess

4957/42 P: behind castle Czocha (Tzschocha), on open soil amongst mosses beside the footpath; 07/2004

According to CIEŚLIŃSKI et al. (2003), data regarding distribution of this inconspicuous species in Poland are deficient. It is not mentioned for the Polish Sudetes by Kossowska (2003).

#### 4. Discussion

Some of the species reported above as being new to larger areas are either inconspicuous (*Macentina abscondita*, *Sarcosagium campestre* etc.) or have been described only recently (*Bacidia adastrata*, *Bacidia brandii*, *Micarea viridileprosa*). Their distribution is apparently incompletely known as yet.

More remarkable is the presence of some epiphytes that are known to be rather sensitive to air pollution, and which have disappeared or become very rare in neighbouring Saxony (*Lecanora argentata*, *Lecidella elaeochroma*, *Opegrapha vermicellifera* etc.), in the foreland of Góry Izerskie (Isergebirge) Mts. Some further such records from Góry Izerskie are presented in OTTE (2003). They are all the more surprising, as Góry Izerskie has been one of the most polluted areas in Europe for many years, until the situation improved since the 1990s. Nevertheless these lichens do not seem to be re-invaders of the very last years, but it seems to concern established older occurrences, because they are from ancient trees. The less monotonous structure of the Polish compared with the Saxon forests, which permits the presence of such trees, might play an important role for this phenomenon.

A number of the species recorded above is not mentioned for Polish Sudetes by Kossowska (2003). However, these are not with certainty new records for this region, because Kossowska's paper is only a »Red List«, and a checklist is still in preparation. Nonetheless, the regarded species seem to be not unthreatened there or at least rather rare and deserve a Red List status.

#### 5. Acknowledgements

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