

## New or interesting records of lichenicolous fungi from Poland II. Species mainly from northern Poland

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**Abstract:** KUKWA, M. 2004. New or interesting records of lichenicolous fungi from Poland II. Species mainly from northern Poland. – *Herzogia* 17: 67–75.

Records of 35 species of lichenicolous fungi are presented, six of which are new to Poland: *Arthonia* aff. *molendoi*, *A. phaeophysciae*, *Epicladonia stenospora*, *Lichenochora weilli*, *Lichenocodium usneae* and *Reichlingia leopoldii*. A myxomycete, *Didymium melanospermum*, is reported for the first time from lichens.

**Zusammenfassung:** Kukwa, M. 2004. Neue oder interessante Funde lichenicoler Pilze aus Polen II. Arten überwiegend aus Nord-Polen. – *Herzogia* 17: 67–75.

Funde von 35 lichenicolen Pilzen werden vorgestellt. Sechs Arten werden neu für Polen nachgewiesen: *Arthonia* aff. *molendoi*, *A. phaeophysciae*, *Epicladonia stenospora*, *Lichenochora weilli*, *Lichenocodium usneae* und *Reichlingia leopoldii*. Der Schleimpilz *Didymium melanospermum* wird erstmals von Flechten gemeldet.

**Key words:** Fungi, myxomycetes, lichens, biodiversity, distribution.

### Introduction

This study, the second of a series presenting distributional data on lichenicolous fungi in Poland (see KUKWA et al. 2002), provides details for new localities of 35 taxa, six of which are new to Poland. Two myxomycetes are also reported, one of which, *Didymium melanospermum*, is reported for the first time from lichens.

All examined localities are mapped according to the ATPOL grid square system as in KUKWA et al. (2002) (fig. 1). For each locality the geographical coordinates are provided. Most of the specimens are deposited in the lichen herbarium of the University of Gdańsk (UGDA); the specimen of *Taeniolella phaeophysciae* is kept in the private herbarium of Professor Mark R. D. Seaward.

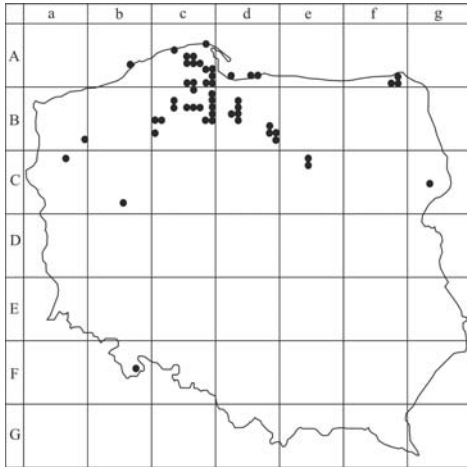
*Arthonia* aff. *molendoi* (Frauenf.) R.Sant.

The species has not been previously reported from Poland. The specimen is very small and differs from *A. molendoi* in the brownish hypothecium (almost hyaline in *A. molendoi*, see KOCOURKOVÁ 2000), with which it may prove to be conspecific. Brief characteristics of the specimen are presented below.

Ascomata black, up to 0.25 mm in diam., hymenium very pale greyish, hypothecium brown, layer of upper part of paraphyses above asci dark brown, up to 15 µm, hypothecium and hymenium K-, I+ red, asci *Arthonia*-type, 30–40 × 14 µm, ascospores 1-septate, colourless, upper cell shorter and wider than the lower, 10–12 × 3.5–5 µm.

Host – *Xanthoria parietina* (L.) Th.Fr. (thallus).

SPECIMEN EXAMINED. [Ac 66] – 1 km W of Bożepole Wielkie, 54°34'N/17°58'E, on maple by roadside, 24.06.2000, M. Kukwa s.n. (UGDA).



**Fig. 1:** Localities of the species given in ATPOL grid square system.

### *Arthonia galactinaria* Leight.

It is a parasite on species of the *Lecanora dispersa* s.l. Some of the Polish records of *Arthonia clemens* (Tul.) Th.Fr. probably belong here, therefore a revision of herbarium material is necessary.

Host – *Lecanora dispersa* (Pers.) Sommerf. s.l. (apothecia).

SPECIMENS EXAMINED. [**Ac 99**] – SW of Niestępowo, 54°19'N/18°26'E, on ground, 26.05.2000, M. Kukwa s.n. (UGDA). [**Bd 68**] – Old viaduct W of Glaznoty, 53°32'N/19°53'30"E, on concrete, 02.03.2001, M. Kukwa 796 (UGDA).

### *Arthonia phaeophysciae* Grube & Matzer

New to Poland.

Host – *Phaeophyscia orbicularis* (Neck.) Moberg (thallus).

SPECIMEN EXAMINED. [**Ac 67**] – Luzino, 54°33'N/18°05'E, on maple by roadside, 10.06.2000, M. Kukwa s.n. (UGDA).

### *Athelia arachnoidea* (Berk.) Jül.

It is a common species in Poland. *Lepraria elobata* Tønsberg is a new host of this fungus (see KOCOURKOVÁ 2000).

Hosts – free living algae, *Bacidia rubella* (Hoffm.) A.Massal., *Hypogymnia physodes* (L.) Nyl., *Lecanora conizaeoides* Nyl. in Cromb., *Lepraria elobata*, *L. incana* (L.) Ach., *Phaeophyscia orbicularis*, *Physcia adscendens* (Fr.) H.Olivier.

SPECIMENS EXAMINED. [**Ac 55**] – c. 0.5 km E of Łęczycze, 54°34'3"N/17°52'E, on *Lecanora conizaeoides* on growing pine, 10.03.2001, M. Kukwa s.n. (in mixed infection with *Lichenocodium erodens* 50 (UGDA). [**Ac 65**] – 2.5 km SSE of Godętowo, 54°33'N/17°57'E, on *Lepraria incana* growing on pine, 24.06.2000, M. Kukwa s.n. (UGDA). [**Ac 67**] – Luzino, 54°33'N/18°05'E, on *Physcia adscendens* growing on sycamore, 10.06.2000, M. Kukwa s.n. (UGDA). [**Ac 78**] – Kamień, by the lake, 54°29'N/18°15'E, on *Lecanora conizaeoides* growing on pine and black alder, 11.06.2000, M. Kukwa s.n. (UGDA). [**Ac 79**] – Gdańsk Osowa, 54°25'N/17°57'E, on *Hypogymnia physodes* and *Lecanora conizaeoides* growing on pine, 21.10.2000, M. Kukwa s.n., (UGDA). [**Ad 85**] – Krynica Morska, on *Lecanora conizaeoides* growing on pine, 54°23'N/19°27'E, 11.07.2001, M. Kukwa 845 (UGDA). [**Bc 19**] – Drzewina, 54°09'N/18°18'E, on *Lepraria elobata* growing on beech, 29.10.2000, M. Kukwa s.n. (UGDA). [**Bc 37**] – Leśna Huta (N of Czarna Woda), 53°53'N/18°06'E, on *Lecanora conizaeoides* growing on birch, 19.06.2000, M. Kukwa s.n. (UGDA). [**Bd 23**] – 2 km N of Gościszewo, 54°00'N/19°00'30"E, on algae and *Lecanora conizaeoides* growing on pine, 18.05.2001, M. Kukwa 100 (UGDA). [**Bd 43**] – N of Brachlewo, Biały Dwór forest district, Forest section No 244, 53°49'N/18°59'E, on *Bacidia rubella* on apple tree, 25.12.2000, M. Kukwa s.n. (UGDA). [**Bd 53**] – N slope

of Liwa river valley, Brokowo, 53°46'30"N/19°03'E, on *Lepraria* cf. *incana* growing on horn-beam, 23.04.2000, M. Kukwa s.n. (UGDA). [Cg 53] – Hajnówka, 52°44'N/23°35'E, on *Phaeophyscia orbicularis* growing on poplar, 26.03.2001, M. Kukwa 133 (UGDA).

***Clypeococcum hypocenomycis* D.Hawksw.**

A very common species in Poland, especially in pine forests, but under-collected.

Host – *Hypocenomyce scalaris* (Ach.) M.Choisy (thallus).

SPECIMENS EXAMINED. [Bc 33] – near Lake Zmarle, 53°55'30"N/17°32'E, on pine, 28.09.2001, M. Kukwa 1258 (UGDA). [Ac 66] – c. 0,5 km NNE of Rozłazino, 54°33'N/17°57'E, on pine, 24.06.2000, M. Kukwa s.n. (UGDA). [Ac 79] – c. 1.5 km W of Gdańsk Osowa, 54°25'N/18°27'E, on birch, 21.10.2000, M. Kukwa s.n. (UGDA). [Ac 89] – Gdańsk Oliwa, Kościarska street, Dolina Ewy valley, 54°25'N/18°32'E, on pine, 06.2000, M. Kukwa s.n. (UGDA); c. 0.3 km N of Gdańsk Złota Karczma, 54°23'N/18°32'E, on pine, 07.10.2001, M. Kukwa 1268 (UGDA). [Bc 06] – Węsiory, 'Kamienne Kręgi' Reserve, 54°13'N/17°51'E, on pine, 21.01.2001, M. Kukwa 18 (UGDA). [Bc 35] – E of Lubnia, 'Bór chrobotkowy im. Z. Tobolewskiego' Nature Reserve, forest section No 327, 53°55'N/17°49'E, on pine, 27.09.2001, M. Kukwa (specimen of *Lichenocodium erodens* 1249, UGDA). [Bc 36] – c. 2 km NW of Odry, 'Kręgi Kamienne' Reserve, 53°54'N/19°00'E, on pine, 27.09.2001, M. Kukwa 1248 (UGDA) [Bc 37] – Leśna Huta (N of Czarna Woda), 53°53'N/18°06'E, on pine, 19.06.2000, M. Kukwa s.n. (UGDA). [Bc 39] – c. 2 km S of Sumin, 53°54'N/18°32'E, on maple, 25.07.2000, M. Kukwa s.n. (UGDA). [Bd 79] – c. 1.5 km NE of Stare Miasto, 53°28'N/20°01'E, on birch, 01.07.2001, M. Kukwa 773 (UGDA). [Ce 24] – SSE of Dzierzgowo, forest section No 276, 53°06'30"N/20°41'E, on pine, 09.1999, M. Kołakowska s.n. (UGDA).

***Corticifraga fuckelii* (Rehm) D.Hawksw. & R.Sant.**

It is the most commonly collected peltigericolous fungus in Poland.

Host - *Peltigera didactyla* (With.) J.R.Laundon var. *didactyla*.

SPECIMENS EXAMINED. [Ac 66] – c. 1,5 km W of Chmieleniec, 54°35'20"N/17°56'E, on ground, 07.04.2001, M. Kukwa 568 (UGDA). [Ac 99] – SW of Niestępowo, 54°18'30"N/18°26'E, on ground, 26.05.2000, M. Kukwa s.n. (UGDA). [Bc 19] – S border of Lake Bronisława, near Cząstkowice, 54°08'30"N/18°25'30"E, on ground, 28.10.2000, M. Kukwa s.n. (UGDA). [Bd 43] – between villages Nowa Wieś and Mątki, 53°51'30"N/19°00'E, on ground, 20.05.2001, M. Kukwa 737 (UGDA).

***Corticifraga peltigerae* (Fuckel) D.Hawksw. & R.Sant.**

Hosts – *Peltigera didactyla* var. *didactyla* and var. *extenuata* Goffinet & Hastings (thallus).

SPECIMENS EXAMINED. [Ac 66] – c. 1 km N of Paraszyno, 54°33'N/18°02'E, on ground, 20.05.2000, M. Kukwa s.n. (UGDA). [Bc 50] – between Rzeczzenica and Przechlewo, forest section No 240, 53°46'N/17°09'E, on ground, 08.08.1998, A. Winkowska s.n. (UGDA). [Bd 53] – Liwa river valley, Kamionka, 53°46'N/19°00'E, on ground, 23.04.2000, M. Kukwa s.n. (UGDA).

***Didymium melanospermum* (Pers.) T.Macbr.**

The myxomycete is reported as facultatively growing on lichens for the first time.

Host – *Cladonia gracilis* (L.) Willd. (podetia).

SPECIMEN EXAMINED. [Bc 23] – 1.5 km SSW of Lake Kruszyńskie, Parzyn forest district, forest section No 200, 53°58'30"N/17°35'E, on ground in pine forest, 18.08.1974, W. Fałynowicz s.n. (UGDA).

***Dinemasporium* aff. *strigosum* (Pers.) Sacc.**

The specimen is similar to *D. strigosum*, but the conidial setulae are longer (10–11 µm, occasionally 5 µm) than reported by SUTTON (1980) (5–7 µm). The species requires further investigation. *D. strigosum* is a common species, most frequently found on graminaceous substrates but not exclusively so (SUTTON 1980); it has been reported on *Peltigera* species (MIADLIKOWSKA & ALSTRUP 1995).

Host – *Peltigera didactyla* var. *extenuata*.

SPECIMEN EXAMINED. [Bc 49] – Wilcze Błota, c. 3 km S of Lubichowo, 53°49'N/18°24'E, on soil, 26.07.2000, M. Kukwa s.n. (UGDA).

***Epicladonia sandstedei*** (Zopf) D.Hawksw.

This is the second recent record of the species in Poland (cf. KUKWA et al. (2002).

Host – *Cladonia novochlorophaea* (Sipman) Brodo & Ahti (podetia).

SPECIMEN EXAMINED. [Ac 43] – Słowiński National Park, 1 km NW of Rąbka, 54°45'N/17°30'E on dunes, 24.09.1999, M. Kukwa s.n. (UGDA).

***Epicladonia stenospora*** (Kalchbr.) D.Hawksw.

New to Poland.

Host – *Cladonia chlorophaea* s.l. (squamules).

SPECIMEN EXAMINED. [Ac 38] – ‘Bielawskie Błoto’ Nature Reserve, 54°48'N/18°15'E, on ground, 09.1998, R. Markowski s.n. (UGDA).

***Illosporopsis christiansenii*** (B.L.Brady & D.Hawksw.) D.Hawksw.

Previously recorded from only one Polish locality (as *Hobsonia christiansenii*, by KUKWA et al. 2002).

Hosts – *Melanelia exasperatula* (Nyl.) Essl., *Physcia* spp., *Xanthoria parietina*, unidentified crustose sterile lichen.

SPECIMENS EXAMINED. [Ba 89] – Lublino, 53°28'N/15°23'E, on *Melanelia exasperatula*, *Physcia tenella* and unidentified crustose lichen growing on poplar, 11.11.1989, J. Miądlkowska s.n. (UGDA). [Bc 37] – c. 0.5 km S of Cegielnia (N of Czarna Woda), 53°53'30"N/18°07'E, on *Physcia* spp. and *Xanthoria parietina* growing on aspen, 04.09.2001, M. Kukwa 1132 (UGDA); c. 1 km S of Cegielnia (N of Czarna Woda), 53°53'N/18°07'E, on *Physcia tenella* growing on aspen, 04.09.2001, M. Kukwa 1134 (UGDA).

***Illosporium carneum*** Fr.

Probably an anamorphic state of *Pronectria robergei* (see HAWKSWORTH & MIĄDLIKOWSKA 1997).

Host – *Peltigera didactyla* var. *didactyla* (thallus).

SPECIMENS EXAMINED. [Af 98] – Suwalski Landscape Park, Łopuchowo, 54°15'N/22°51'E, on ground, 07.07.2000, M. Jankowska & M. Kukwa s.n. (UGDA). [Bd 42] – Nowa Wieś, 53°52'N/19°00'E, on ground, 07.06.2000, M. Kukwa s.n. (UGDA).

***Karsteniomyces peltigerae*** (P.Karst.) D.Hawksw.

Hosts – *Peltigera didactyla* var. *didactyla* (thallus), *P. rufescens* (Weiss) Humb. (thallus).

SPECIMENS EXAMINED. [Ac 65] – Rozłazino, 54°32'N/17°55'E, on *P. didactyla* growing on ground, 24.06.2000, M. Kukwa s.n. (UGDA). [Bc 36] – c. 2 km W of Leśna Huta, 53°53'N/18°04'E, on *Peltigera rufescens* growing on ground, 21.06.2000, M. Kukwa s.n. (UGDA).

***Licea parasitica*** (Zukal) Martin

This is a myxomycete commonly growing on epiphytic lichens.

Hosts – *Melanelia exasperatula*, *Phaeophyscia orbicularis*, *Physcia tenella* (Scop.) DC. and *Physconia enteroxantha* (Nyl.) Poelt (in all cases on thallus).

SPECIMENS EXAMINED. [Ac 79] – c. 3 km SW of Gdańsk Osowa, 54°25'N/18°25'E, on *Melanelia exasperatula*, *Physcia tenella* and *Physconia enteroxantha* growing on willow, 21.10.2000, M. Kukwa s.n. (UGDA). [Bd 42] – Jałowiec, 53°49'N/18°57'E, on *Phaeophyscia orbicularis* growing on poplar, 26.12.1999, M. Kukwa s.n. (UGDA).

***Lichenochora weilli*** (Werner) Hafellner & R.Sant.

New to Poland.

Hosts – *Physconia enteroxantha* (thallus), *P. cf. perisidiosa* (Erichsen) Moberg (thallus).

SPECIMENS EXAMINED. [Ac 65] – Łęczyce, 54°35'N/17°52'E, on *Physconia enteroxantha* growing on maple,

10.03.2001, M. Kukwa 34 (UGDA). [**Ac 79**] – c. 3 km S of Gdańsk Osowa, 54°25'N/18°25'E, on *P. enteroxantha* growing on willow, 21.10.2000, M. Kukwa s.n. (UGDA). [**Bc 51**] – Szczytyno, 53°46'N/17°19'E, on *P. cf. perisidiosa* growing on maple, 1999, A. Winkowska s.n. (UGDA). [**Bd 43**] – Małki, 53°51'N/19°00'E, on *P. enteroxantha* growing on ash by roadside, 20.09.1999, M. Kukwa s.n. (UGDA).

### *Lichenocodium erodens* M.S.Christ. & D.Hawksw.

This common lichenicolous fungus in Poland grows on a wide range of lichens. *Xanthoria parietina* (L.) Th Fr. is probably reported for the first time as a host (see KOCOURKOVÁ 2000).

Hosts – *Evernia prunastri* (L.) Ach., *Hypocenomyce scalaris*, *Hypogymnia physodes*, *Lecanora conizaeoides*, *L. varia* (Ehrh.) Ach., *Parmelia sulcata* Taylor, *Ramalina fraxinea* (L.) Ach., *Xanthoria parietina* (L.) Th Fr. (in all cases on thallus, on *Lecanora* spp. also on apothecia).

SPECIMENS EXAMINED. [**Bc 33**] – By Lake Zmarle, 53°55'30"N/17°32"E, on *Hypocenomyce scalaris* growing on pine, 28.09.2001, M. Kukwa 1257a (UGDA). [**Ac 56**] – c. 0.5 km E of Łęczyce, 54°35'30"N/17°52'30"E, on *Hypogymnia physodes* growing on beech and on *Lecanora conizaeoides* growing on pine, 10.03.2001, M. Kukwa 49 & 50 (UGDA). [**Ac 65**] – 1 km S of Godtowo, 54°34'N/17°43'E, on *Lecanora conizaeoides* growing on *Larix decidua*, 24.06.2000, M. Kukwa s.n. (UGDA); Rozłazino, 54°32'N/17°55'E on *Lecanora conizaeoides* growing on spruce, 24.06.2000, M. Kukwa s.n. (UGDA); 1 km N of Rozłazino, 54°33'N/17°55'E on *Xanthoria parietina* growing on birch, 24.06.2000, M. Kukwa s.n. (UGDA). [**Ac 66**] – 1 km SE of Paraszyno, 54°32'N/18°01'E, on *Hypogymnia physodes* growing on beech, 10.06.2000, M. Kukwa s.n. (UGDA); c. 2 km W of Bożepole Wielkie, 54°34'N/17°57'E, on *Parmelia sulcata* growing on maple, 24.06.200, M. Kukwa s.n. (UGDA). [**Ac 67**] – Luzino, 54°33'N/18°05'E, on *Parmelia sulcata* growing on sycamore, 10.06.2000, M. Kukwa s.n. (UGDA); 1 km W of Barłomino, 54°32'N/18°06'E, on *Hypogymnia physodes* growing on ash, 10.06.2000, M. Kukwa s.n. (UGDA). [**Ac 78**] – Kamień, by the lake, 54°29'N/18°15'E, by the lake, on *Hypogymnia physodes* and *Lecanora conizaeoides* growing on pine, 11.06.2000, M. Kukwa s.n. (UGDA). [**Ac 79**] – Gdańsk Osowa, 54°25'N/17°57'E, on *Lecanora conizaeoides* and *Hypogymnia physodes* growing on pine, 21.10.2000, M. Kukwa s.n. (UGDA); Gdynia Karwiny, 54°29'N/18°29'E, on *L. conizaeoides* growing on pine, 13.06.2000, M. Kukwa & K. Jando s.n. (UGDA). [**Ac 89**] – Gdańsk Oliwa, Kościarska street, Dolina Ewy valley, 54°25'N/18°32'E, on *Parmelia sulcata* growing on maple, 06.2000, M. Kukwa s.n. (UGDA). [**Ad 85**] – Krynica Morska, 54°23'N/19°27'E, on *Parmelia sulcata* growing on pine, 11.07.2001, M. Kukwa 846a (UGDA). [**Ad 86**] – between Piaski and Krynica Morska, forest section No 15, 54°24'N/19°31'E, on *Hypogymnia physodes* on pine, 11.07.2001, M. Kukwa 839 (UGDA). [**Af 97**] – near 'Głazowisko Bachanowo nad Czarną Hańczą' Nature Reserve, 54°14'N/22°48'E, on *Hypogymnia physodes* growing on black alder, 06.07.2000, M. Kukwa s.n. (UGDA). [**Af 98**] – Wodziłki, 54°13'N/22°51'E, on *Hypogymnia physodes* growing on horse-chestnut, 07.07.2000, M. Kukwa s.n. (UGDA). [**Bc 06**] – Wsiory, 'Kamienne Kręgi' Reserve, 54°13'N/17°51'E, on *Hypogymnia physodes* on pine, 21.01.2001, M. Kukwa 19 (UGDA). [**Bc 35**] – E of Lubnia, 'Bór chrobotkowy im. Z. Tobolewskiego' Nature Reserve, forest section No 327, 53°55'N/17°49'E, on *Hypocenomyce scalaris* growing on pine, 27.09.2001, M. Kukwa 1249 (UGDA). [**Bc 37**] – Leśna Huta (N of Czarna Woda), 53°53'N/18°06'E, on *Parmelia sulcata* and *Ramalina fraxinea* (in mixed infection with *Phoma* sp.) growing on maple and *Hypogymnia physodes* on *Quercus rubra*, 19.06.2000, M. Kukwa s.n. (UGDA). [**Bd 33**] – Sztumska Wieś, 53°54'N/19°01'E, on *Lecanora varia* growing on birch and *Evernia prunastri* growing on oak, 16.06.2000, M. Kukwa s.n. (UGDA). [**Ce 24**] – SSE of Dzierzgowo, forest section No 276, 53°06'30"N/20°41'E, on pine, 09.1999, M. Kołakowska s.n. (UGDA).

### *Lichenocodium lecanorae* (Jaap) D.Hawksw.

A common species in Poland, especially on *Lecanora conizaeoides*.

Hosts – *Lecanora conizaeoides* (apothecia), *L. varia* (apothecia).

SPECIMENS EXAMINED (if not otherwise stated growing on *Lecanora conizaeoides*). [**Ac 56**] – c. 2.5 km NE of Łęczyce, 54°36'N/17°54'E, on pine, 10.03.2001, M. Kukwa 81 (UGDA). [**Ac 78**] – Kamień, by the lake, 54°29'N/18°15'E, on pine, 11.06.2000, M. Kukwa s.n. (UGDA). [**Ac 79**] – Gdańsk Osowa, 54°25'N/17°57'E, on pine, 21.10.2000, M. Kukwa s.n. (UGDA); Gdynia Karwiny, 54°29'N/18°29'E, on *L. conizaeoides* growing on pine, 13.06.2000, M. Kukwa & K. Jando s.n. (UGDA). [**Ad 85**] – Krynica Morska, 54°23'N/19°27'E, on pine, 11.07.2001, M. Kukwa 844 (UGDA). [**Bc 06**] – Węsiory, 'Kamienne Kręgi' Reserve, 54°13'N/17°51'E, on pine, 21.01.2001, M. Kukwa 21 (UGDA). [**Bc 33**] – near Lake Zmarle, 53°55'30"N/17°32'E, on pine, 28.09.2001, M. Kukwa 1257 (UGDA). [**Bc 35**] – E of Lubnia, 'Bór chrobotkowy im. Z. Tobolewskiego' Nature Reserve, forest section No 327, 53°55'N/17°49'E, on wood, 27.09.2001, M. Kukwa 1252 (UGDA). [**Bc 37**] – Leśna Huta (N of Czarna Woda), 53°53'N/18°06'E, on wood, 19.06.2000, M. Kukwa s.n. (UGDA).



[Bc 39] – c. 2 km S of Sumin, 53°54'N/18°32'E, on *Lecanora varia* growing on maple, 25.07.2000, M. Kukwa s.n. (UGDA). [Bc 59] – Wdecki Młyn near Wda, 53°46'30"N/18°24'E, on pine, 26.07.2000, M. Kukwa s.n. (UGDA). [Bd 33] – between Sztum and Koniecwald, 53°56'30"N/19°01'E, on beech, 18.05.2001, M. Kukwa 126 (UGDA). [Ce 14] – Stegna, 53°10'30"N/20°39'E, on *L. varia* growing on poplar, 05.2000, M. Kołakowska s.n. (UGDA).

***Lichenocodium usneae*** (Anzi) D.Hawksw.

New to Poland.

Host – *Ramalina baltica* Lettau (thallus).

SPECIMEN EXAMINED. [Ac 66] – Paraszyno, 54°32'N/18°01'E, on old oak, 20.06.2000, M. Kukwa s.n. (UGDA).

***Lichenocodium xanthoriae*** M.S.Christ.

Previously reported in Poland from three localities (see KUKWA *et al.* 2002).

Hosts – *Xanthoria parietina*, *X. polycarpa* (Hoffm.) Rieber (apothecia).

SPECIMENS EXAMINED. [Af 88] – Suwalski Landscape Park, S border of Lake Jaczno, 54°16'N/22°52'E, on *Xanthoria polycarpa* growing on *Syringa*, 07.07.2000, M. Kukwa s.n. (UGDA). [Bc 37] – c. 0.5 km S of Cegielnia (N of Czarna Woda), 53°53'30"N/18°07'E, on *Xanthoria parietina* growing on aspen, 04.09.2001, M. Kukwa 1130 (UGDA). [Bd 78] – 0.5 km N of Wygoda, 53°31'20"N/19°55'E, on *Xanthoria polycarpa* growing on branches of willow, 02.06.2001, M. Kukwa 794 (UGDA).

***Lichenodiplis lecanorae*** (Vouaux) Dyko & D.Hawksw.

Host – *Lecanora saligna* (Schrad.) A.Zahlbr. (apothecia).

SPECIMENS EXAMINED. [Bc 70] – Prusinowo, 53°32'N/17°03'E, on wood, 07.1998, M. Kukwa s.n. (UGDA). [Bd 43] – Postolin, 54°52'N/19°03'E, on wood, 22.04.2000, M. Kukwa s.n. (UGDA).

***Marchandiomyces aurantiacus*** (Lasch) Diederich & Etayo

The third record from Poland (Jando & Kukwa unpubl.).

Hosts – *Physcia* spp. (thallus).

SPECIMEN EXAMINED [Ac 66] – c. 0,25–0,5 km W of Chmieleniec, 54°35'20"N/17°57'E, on sycamore, 07.04.2001, M. Kukwa 555 (UGDA).

***Phoma cytospora*** (Vouaux) D.Hawksw.

Specimen marked with an asterisk (Kukwa 1331) produced conidia mainly longer (9 µm, very rarely 9.5 µm) than reported by HAWKSWORTH (1981), whilst the shorter (6–8 µm) were rare. The other features agreed with the description of *P. cytospora*. The specimen (Kukwa 613a) growing on *Punctelia subrudecta* (Nyl.) Krog was somewhat intermediate and the typical conidia were accompanied by few longer ones (9 µm); this specimen is referred to *Phoma cytospora*, but requires further study.

Hosts – *Hypogymnia physodes* (thallus), *Parmelia sulcata* (thallus), *Punctelia subrudecta* (soralia).

SPECIMENS EXAMINED. [Ac 96] – Borucino village, near Lake Raduńskie Górne, 54°16'N/18°00'E, on *Hypogymnia physodes* growing on maple, 05.01.2002, M. Kukwa 1331\* (UGDA). [Ad 85] – Krynica Morska, 54°23'N/19°27'E, on *Parmelia sulcata* growing on pine, 11.07.2001, M. Kukwa 846 (UGDA). [Bc 37] – Leśna Huta (N of Czarna Woda), 53°53'N/18°06'E, on *Hypogymnia physodes* growing on oak, 19.06.2000, M. Kukwa s.n. (UGDA). [Bd 43] – c. 0.5 km N of Nowa Wieś, 53°52'40"N/19°00'30"E, on *Punctelia subrudecta* growing on willow, 15.04.2001, M. Kukwa 613a (UGDA).

***Phoma*** sp.

This specimen, undetermined at species level, is characterised by conidia 4–5 × 2.5 µm.

Host – *Ramalina fraxinea* (thallus).

SPECIMEN EXAMINED. [**Bc 37**] – Leśna Huta (N of Czarna Woda), 53°53'N/18°06'E, on maple, 22.06.2000, M. Kukwa s.n. (UGDA).

***Pronectria robergei*** (Mont. & Desm.) Lowen

Previously reported from only one locality in Poland [ZIELIŃSKA 1963, as *Nectriella robergei* (Mont. & Desm.) Weese].

Host – *Peltigera didactyla* var. *didactyla* (thallus).

SPECIMEN EXAMINED. [**Bd 42**] – Nowa Wieś, 53°52'N/19°00'E, on ground, 17.06.2000, M. Kukwa s.n. (UGDA).

***Reichlingia leopoldii*** Diederich & Scheid.

This species, new to Poland, occurs on an unidentified lichen taxon with *Trentepohlia* sp. as a photobiont (DIEDERICH & SCHEIDEGGER 1996).

Host – sterile crustose epiphytic lichen.

SPECIMEN EXAMINED. [**Ac 98**] – 'Jar rzeki Raduni' Nature Reserve, 54°18'N/18°18'E, on linden, 1996, D. Królak s.n. (UGDA).

***Sphaerellothecium propinquellum*** (Nyl.) Cl.Roux & Triebel

The second locality of the species in Poland (KUKWA et al. 2002).

Host – *Lecanora carpinea* (L.) Vain. (apothecia).

SPECIMEN EXAMINED. [**Ac 55**] – E part of Łęczycze, 54°55'30"N/17°52'30"E, on oak in deciduous forest, 10.03.2001, M. Kukwa 43 (UGDA).

***Syzygospora physciacearum*** Diederich

Host – *Physcia adscendens* (thallus).

SPECIMEN EXAMINED. [**Ad 82**] – 1,5 km N of Gdańsk Świbno, by the river, 54°20'30"N/18°56'20"E, on willow, 26.06.2001, M. Kukwa 747 (UGDA).

***Taeniolella beschiana*** Diederich

Host – *Cladonia pyxidata* (L.) Hoffm.

SPECIMEN EXAMINED. [**Ca 16**] – Puszcza Rzepińska, forest section No 182, by the road from Diebrznica to Torzym, 52°16'N/15°04'E, on ground, 28.07.1998, W. Rakowski s.n. (UGDA).

***Taeniolella phaeophysciae*** D.Hawksw.

Host – *Phaeophyscia orbicularis* (thallus).

SPECIMEN EXAMINED. [**Fb 47**] – Kletno, alt. 700–725 m, 50°16'N/16°52'E, on maple, 24.8.1979, M. R. D. Seaward (herb. MRDS 103129, 103130).

***Tremella hypogymniae*** M.S.Christ. & Diederich

Common in Poland, usually growing in humid and shaded situations (e.g. well preserved deciduous forests, trees near the lakes).

Host – *Hypogymnia physodes* (thallus).

SPECIMENS EXAMINED. [**Ac 65**] – c. 2.5 km SSE of Godętowo, 54°33'N/17°57'E, on birch by the road, 24.06.2000, M. Kukwa s.n. (UGDA); c. 1.5 km N of Rozłazino, 54°33'N/17°55'E on birch, 24.06.2000, M. Kukwa s.n. (UGDA). [**Ac 66**] – between Porzecze and Łówcz, 54°31'30"N/18°00'E, on oak, 24.09.2000, M. Kukwa s.n. (UGDA). [**Ac 79**] – c. 2 km SW of Gdańsk Osowa, 54°25'N/18°27'E, on aspen, 21.10.2000, M. Kukwa s.n. (UGDA). [**Ac 95**] – N of Sulęczyno, 54°15'N/17°47'E, on oak, 21.01.2001, M. Kukwa 25 (UGDA). [**Bc 29**] – c. 3 km SSE of Skarszewy, 54°03'N/18°29'E, on aspen, 24.07.2000, M. Kukwa s.n. (UGDA). [**Bc 58**] – by the 'Krzywe Koło' nature reserve, 53°43'N/18°21'30"E, on linden, 18.09.2001, M. Kukwa 1237 (UGDA).

***Tremella lichenicola*** Diederich

The first report of the species from NW Poland.

Host – *Mycoblastus fucatus* (Stirt.) Zahlbr. (thallus).

SPECIMEN EXAMINED. [Ac 65] – c. 3 km SSE of Godętowo, 54°33'N/17°57'E, on black alder by the small stream, 24.06.2000, M. Kukwa s.n. (UGDA).

***Tremella phaeophysciae*** Diederich

Previously known from five localities in Poland (DIEDERICH 1996, KUKWA et al. 2002).

Host – *Phaeophyscia orbicularis* (thallus).

SPECIMENS EXAMINED. [Af 88] – Suwalski Landscape Park, S border of Lake Jaczno, 54°16'N/22°52'E, on ash, 07.07.2000, M. Kukwa s.n. (UGDA). [Af 97] – Suwalski Landscape Park, Szeszupka, 54°13'20"N/22°50'E, on ash, 08.07.2000, M. Kukwa s.n. (UGDA). [Bc 19] – Kamierowo, 54°05'30"N/217°47'E, on *Sorbus aucuparia*, 24.07.2000, M. Kukwa s.n. (UGDA).

***Vezdaea rheocarpa*** Poelt & Döbbeler

This rare species in Europe (see KOCOURKOVÁ 2000) was reported for the first time from Poland by MIĄDLIKOWSKA & ALSTRUP (1995). This additional locality is the first for northern Poland.

Host – *Peltigera praetextata* (Flörke) Zopf (thallus).

SPECIMEN EXAMINED. [Ac 89] – Gdańsk Oliwa, Kościarska street, Dolina Ewy valley, 54°25'N/18°32'E, on boulder in humid place, 06.2000, M. Kukwa s.n. (UGDA).

***Vouauxiella lichenicola*** (Linds.) Petr. & Syd.

A common species in northern Poland (e.g. KUKWA et al. 2002).

Hosts – *Lecanora argentata* (Ach.) Malme, *Lecanora chlarotera* Nyl. (thallus and apothecia).

SPECIMENS EXAMINED (if not otherwise stated growing on *Lecanora argentata*). [Ab 66] – Lake Kopań, 54°29'N/16°26'E, on *Sorbus aucuparia*, 20.04.1990, W. Fałtynowicz s.n. (UGDA). [Ac 65] – S of Łęczyce, 54°34'40"N/17°52'E, on ash, 24.06.2000, M. Kukwa s.n. (UGDA). [Ac 66] – 1 km W of Bożepole Wielkie, 54°34'N/17°58'E, on *Lecanora chlarotera* growing on sycamore, 24.06.2000, M. Kukwa s.n. (UGDA). c. 0.25–0.5 km W of Chmieleniec, 54°35'20"N/17°57'E, on *Lecanora chlarotera* growing on sycamore, 07.04.2001, M. Kukwa 554 (UGDA) [Ac 67] – Luzino, 54°33'N/18°05'E, on sycamore, 10.06.2000, M. Kukwa s.n. (UGDA); 1 km S of Luzino, 54°34'N/18°05'E, on ash, 10.06.2000, M. Kukwa s.n. (UGDA). [Ac 96] – Borucino, 54°16'N/18°00'E, on *Lecanora chlarotera* on maple, 05.01.2002, M. Kukwa 1332 (UGDA). [Af 97] – Przełomka, by Lake Hańcza, 54°15'30"N/22°48'E, on maple, 09.07.2000, M. Kukwa s.n. (UGDA). [Bd 33] – Sztumska Wieś, 53°54'N/19°01'E, on maple, 16.06.2000, M. Kukwa s.n. (UGDA).

***Xanthoriicola physciae*** (Kalchbr.) D.Hawksw.

Host – *Xanthoria parietina* (apothecia).

SPECIMENS EXAMINED. [Ac 65] – S of Łęczyce, 54°34'40"N/17°52'E, on ash, 24.06.2000, M. Kukwa s.n. (UGDA). [Ac 66] – Bożepole Wielkie, 54°34'N/17°58'E, on maple by the road, 24.06.2000, M. Kukwa s.n. (UGDA); c. 1 km W of Bożepole Wielkie, 54°34'N/17°58'E, on sycamore, 24.06.2000, M. Kukwa s.n. (UGDA). c. 0.5 km S of Paraszyno in Łeba River Valley, 54°32'N/18°01'E, on aspen, 10.06.2000, M. Kukwa s.n. (UGDA); Strzebielino Morskie, 54°33'N/18°02'E, on poplar, 10.06.2000, M. Kukwa s.n. (UGDA); c. 0.25–0.5 km W of Chmieleniec, 54°35'20"N/17°57'E, on sycamore, 07.04.2001, M. Kukwa 556 (UGDA). [Ac 89] – Gdańsk Oliwa, Kościarska street, 54°25'N/18°32'E, on maple, 06.2000, M. Kukwa s.n. (UGDA). [Ad 86] – between Piaski and Krynica Morska, forest section No 15, 54°24'N/19°31'E, on willow, 11.07.2001, M. Kukwa 836 (UGDA). [Bc 37] – c. 0.5 km S of Cegielnia (N of Czarna Woda), 53°53'30"N/18°07'E, on aspen, 04.09.2001, M. Kukwa 1131 (also in specimen of *Illosporopsis christiansenii* 1132) (UGDA). [Bd 23] – between Gościszewo and Koniecwałd, on aspen, 18.05.2001, M. Kukwa 111 (UGDA). [Bd 78] – c. 0.5 km N of Glaznoty, 53°32'30"N/18°54'E, on maple, 06.07.2001, M. Kukwa 813 (UGDA). [Bd 89] – Marwałd, 53°29'40"N/19°59'E, on ash, 01.07.2001, M. Kukwa 764 (UGDA). [Cb 85] – Dębina near Poznań, 52°32'N/16°25'E, on willow, 04.03.1930, F. Krawiec, Lichenoth. Polon. 45, sub *Xanthoria parietina* (UGDA).



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