Folia Cryptog. Estonica, Fasc. 62: 31–40 (2025)
https://doi.org/10.12697/fce.2025.62.03

Some new mitosporic lichenicolous fungi for Sweden, Norway and Fennoscandia

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Abstract: We report 23 lichenicolous fungi new to Sweden, among these, one is new to Europe, 21 are new to Fennoscandia, and two are newly reported for Norway. This article focuses only on mitosporic fungi. The newly reported species are *Acremonium pertusariae*, *Cladophialophora dimorphospora*, *Cladosporium licheniphilum*, *Corynespora laevistipitata*, *Didymocyrtis cladoniicola*, *D. grumantiana*, *Ellisembia lichenicola*, *Epithamnolia xanthoriae*, *Gonatophragmium lichenophilum*, *Lichenoconium lichenicola*, *Lichenostella griseofusca*, *Microcera physciae*, *Psammina filamentosa*, *Pseudocercospora lichenum*, *Sclerococcum phaeophysciae*, *S. toensbergii*, *Taeniolella cladinicola*, *T. diploschistis*, *Talpapellis lendemeri*, *Trimmatostroma acetabuli*, *T. vandenboomi*, *Venturia lichenophila* and *Xylohyphopsis xanthoriicola*. The reports of *Talpapellis lendemeri* represent the first record in Europe. New hosts are reported for *Corynespora laevistipitata*, *Ellisembia lichenicola*, *Gonatophragmium lichenophilum*, *Lichenoconium lichenicola*, *Psammina filamentosa*, *Sclerococcum toensbergii* and *Venturia lichenophila*.

Keywords: hyphomycetes, Ascomycota, mycota, palaearctic, Northern Europe, biodiversity

INTRODUCTION

The current version of Santesson's checklist includes 597 species of lichenicolous fungi from Fennoscandia: 251 species from Finland, 411 species from Norway and 475 species from Sweden (Westberg et al., 2021). In recent years, interest in lichenicolous fungi has increased in Norway and Sweden, with continuous efforts being made to discover new species, as reflected in the high pace of new reports (e.g., Frisch et al., 2020, 2022, 2024; Klepsland, 2020; Westberg et al., 2022, 2023; Vicente et al., 2024).

Mitosporic lichenicolous fungi are often difficult to identify and, for this reason, often neglected or remain unidentified. The recent volume of Flora of Lichenicolous Fungi (Diederich et al., 2024e) has greatly facilitated the discovery of new hyphomycetes in Fennoscandia. Many of the species reported in the present article have been discovered after the publication of this book. We report 23 lichenicolous fungi as new to Sweden. Among the reported species, one is new to Europe, 21 are new to Fennoscandia and two are also new to Norway.

The recent high pace of discovery of new species for Norway, Sweden and Fennoscandia suggests that numerous species of this poorly studied group of fungi still remain undetected. Ten of the species reported in this article have been collected in the Swedish city Lund and several of these from Lund city park (Lunds stadspark). This shows that it is possible to find species new to your country in your backyard or in the nature surrounding your house. New or interesting species can be discovered without going to the best habitats or exotic places.

MATERIAL AND METHODS

Specimens were studied using a dissecting microscope. Anatomical features were examined on hand-cut sections of the host lichens and squash preparations mounted in water using a compound microscope. Measurements of anatomical features were made in water. Spore size is usually given as the range of values observed. In a few cases, we also give the average and the number of spores measured (n), or present the ascospore dimensions as (min–){X–SD}–{X+SD}(–max), where "min" and "max" are the extreme

observed values, X the average and SD the corresponding standard deviation. Nomenclature is according to Index Fungorum (www.indexfungorum.org).

Coordinates are given in decimal degrees in WGS 84. Specimens are deposited in the herbaria of Museum of Evolution (UPS), Lund University Biological Museum (LD) and Oslo Natural History Museum (O). Some of the examined specimens have accession numbers, however several of the specimens lack one yet, but depositories are still noted within parenthesis. For some specimens a collector number is provided.

RESULTS AND DISCUSSION

Acremonium pertusariae Brackel & Etayo

New to Sweden and Fennoscandia. *Acremonium pertusariae* is a species that grows on *Lepra albescens* and *Pertusaria pertusa*. It is known from the Canary Islands, France, Germany, Italy, Russia, mainland Spain and Switzerland (Diederich et al., 2024d). The Swedish material grows on *Lepra albescens* and has conidia measuring 4.5–5.5(–7.2) × 3–4 µm, filled with droplets (living material), corresponding to the description in Diederich et al. (2024d).

Specimen examined: Sweden. Småland: Sävsjö par., Komstad, Komstad ekbacke, 57.40626°N 14.61608°E, on *Lepra albescens*, 25 Jan. 2025, R. Isaksson (UPS F-1171874).

Cladophialophora dimorphospora P. Pinault, Diederich & Etayo (Fig. 1A)

New to Sweden and Fennoscandia. *Cladophialophora dimorphospora* is a species that grows on *Melanohalea exasperata*, *Parmelina quercina* and *Evernia prunastri* and is known from France and Spain (Diederich et al., 2024c). The Swedish specimens grow in the soralia of moribound *Evernia prunastri* infected with a *Lichenoconium* sp. The examined material corresponds well with the protologue, particularly in its dimorphic conidia and host choice.

Specimens examined: Sweden. Småland: Sävsjö par., pasture ca. 400 m E of Skrapstadsjön, 57.42124°N 14.69631°E, in the soralia of *Evernia prunastri* growing on *Quercus robur*, 7 Mar. 2025, R. Isaksson (UPS); ibid., Komstad, Komstad ekbacke, 57.40669°N 14.61509°E in the soralia of *E. prunastri* growing on *Q. robur*, 9 Mar. 2025, R. Isaksson (UPS F-1171914).

Cladosporium lichenophilum Heuchert & U. Braun

New to Sweden and Fennoscandia. *Cladosporium lichenophilum* is a common and widespread hyphomycete with a broad host range. It is known from several European countries including Estonia (Suija et al., 2011; Diederich et al., 2024f). The Swedish material grows on *Xanthoria parietina*, which is a commonly reported host. The specimen co-occurred with other lichenicolous species such as *Athelia arachnoidea*, *Xanthoriicola physciae* and *Bryostigma* (=*Arthonia*) *parietinarium*.

Specimen examined: Sweden. Skåne: Lund par., Lund, Svanegatan, 55.70290°N 13.18250°E, on apothecia of *Xanthoria parietina*, corticolous on *Quercus* cf. *robur*, 22 Dec. 2024, R. Vicente 178 (LD).

Corynespora laevistipitata (M. S. Cole & D. Hawksw.) Heuchert & U. Braun

New to Sweden and Fennoscandia. *Corynespora laevistipitata* is a facultatively lichenicolous hyphomycete reported from a broad host range. The species is most often saprotrophic but can be found on adjacent lichens such as *Amandinea punctata*, *Lecanora chlarotera*, *Pertusaria pertusa*, *Phaeophyscia orbicularis* and *Xanthoria parietina* (Diederich et al. 2024b). It seems to be widespread with scattered reports from Asia, several European countries and North America (Heuchert & Braun, 2006; Diederich et al., 2024b). The Swedish material co-occurred with *Taeniolella* cf. *delicata* on the thallus of *Lecanora* cf. *argentata*, which is a new host. Conidia in Swedish material measure 23–70 × 8–11 µm. They are smooth, 1–8-distoseptate, rarely constricted at the septa (usually only apically on a few conidia) and paler brown than the conidiophores. The conidia are often paler apically.

Specimen examined: Sweden. Gotland: Grötlingbo par., Hallinge, 57.11543°N 18.36603°E, on thallus of *Lecanora* cf. *argentata*, corticolous on *Fraxinus excelsior* in an old-growth deciduous forest, 9 Aug. 2022, R. Vicente 127 (LD, sub. *Taeniolella* cf. *delicata*).

Didymocyrtis cladoniicola (Diederich, Kocourk. & Etayo) Ertz & Diederich

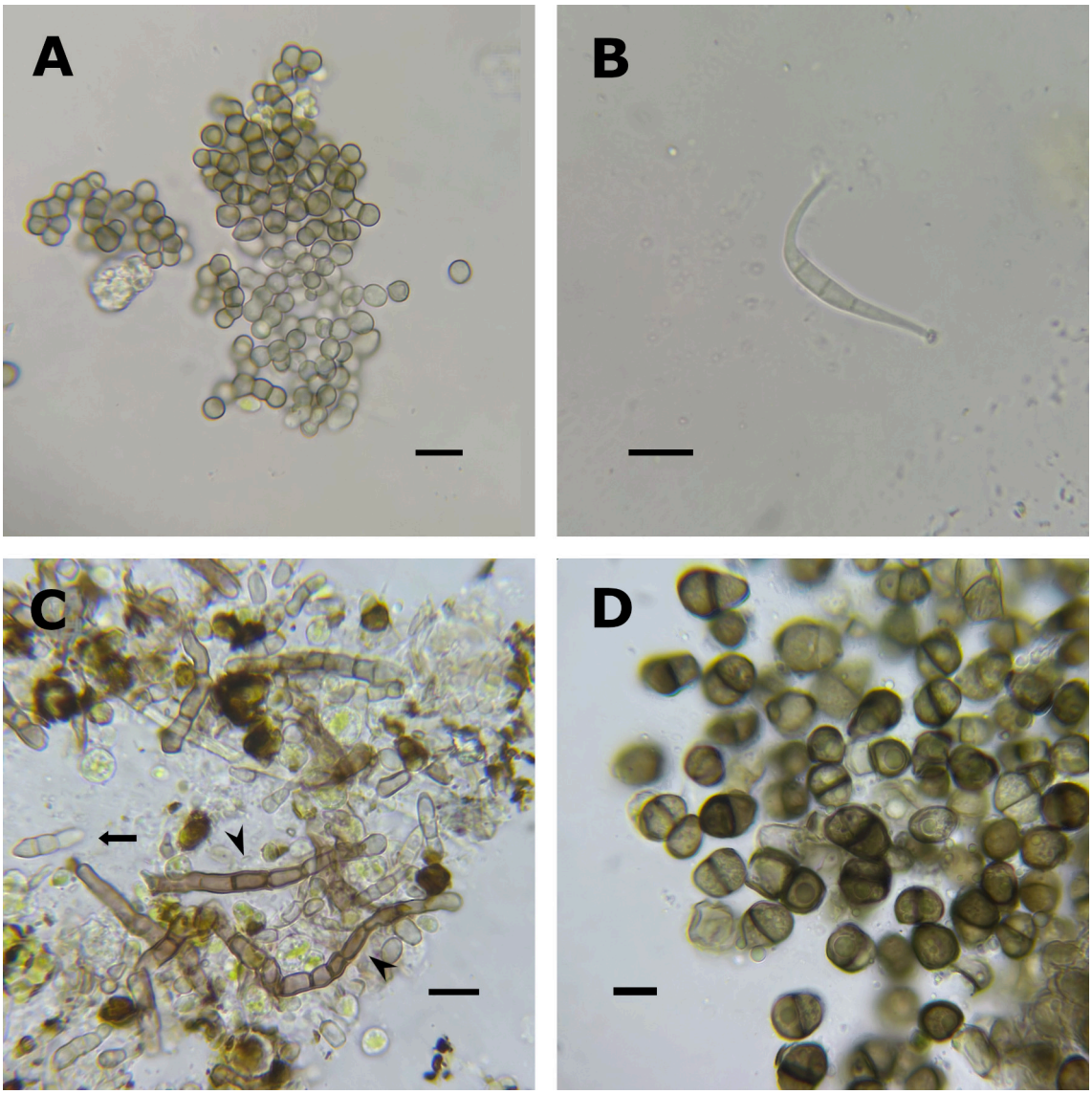

Fig 1. Conidia and conidiophores of four new species of lichenicolous fungi for Fennoscandia. A – *Cladophialophora dimorphospora*, conidia and conidiophores. B – *Microcera physciae*, a single conidium. C – *Pseudocercospora lichenum*, simple and septate conidia and conidiophores visible. Arrow points at septate conidium. Arrowheads point at conidiophores. D – *Sclerococcum phaeophysciae*, several conidia. Scale bars = 10 µm. Photos: Robin Isaksson.

New to Sweden and Fennoscandia. *Didymocyrtis cladoniicola* is a widespread species that is reported from several species in the genus *Cladonia*. It is known from many European countries, such as the Czech Republic, France, Germany, Spain, etc. (Diederich et al., 2007; Zhurbenko & Pino-Bodas, 2017). *Phoma*-like anamorphic fungi are difficult to identify as they have few distinguishing characters. The Swedish specimen of *D. cladoniicola* has broadly ellipsoid conidia measuring (4.5–)4.6–5.1(–5.2) × (2.5–)2.6–2.7(–2.8) µm, l/b = 1.8–1.9 (n=20), corresponding with the protologue (Diederich et al., 2007).

Specimen examined: Sweden. Södermanland: Tyresö par., Raksta, SE Albysjön, 59.22659°N 18.30150°E, siliceous rock outcrops with old pines, lichenicolous on *Cladonia uncialis*, possibly also *C. arbuscula.*, 23 Aug. 2024, R. Vicente 152 (LD).

Didymocyrtis grumantiana (Zhurb. & Diederich) Zhurb. & Diederich

New to Sweden and Fennoscandia. *Didymocyrtis grumantiana* is a species growing on *Cladonia* spp. that is known from Germany, Italy, Luxembourg, Mongolia, Russia, Svalbard and the USA (Brackel & Puntillo, 2016; Diederich et al., 2007, 2009; Teuber et al., 2021; Tsurykau & Korchikov, 2017; Zhurbenko et al., 2019). The Swedish material was found in alvar habitat. The conidia measure (4–)4.5–5.4(–6.5) × (1.8–)1.9–2.2(–2.5) µm, average (5 × 1.9 µm), (n=81).

Specimens examined: Sweden. Öland: Sandby par., Ekelunda alvar, W of Ekelunda, 56.57364°N 16.55553°E, on *Cladonia* sp., 28 Dec. 2024, R. Isaksson (UPS F-1171889); ibid., 56.57908°N 16.56644°E, on *Cladonia* sp., 28 Dec. 2024, R. Isaksson (UPS F-1171883).

Ellisembia lichenicola Heuchert & U. Braun

New to Sweden and Fennoscandia. *Ellisembia lichenicola* is a hyphomycete reported from several unrelated lichen hosts, such as *Bacidia rubella*, *Lecanora chlarotera*, *Lecidella elaeochroma*, *Physconia distorta*, *Ramalina fraxinea* and *Xanthoria parietina* (Heuchert & Braun, 2006; Heuchert et al., 2024a). It is known from North America and Europe. The holotype is from Denmark; thus, the species was expected to occur in Sweden. *Ellisembia lichenicola* has been collected from two localities: on Gotland it was found on *Bacidia rubella* and in Skåne on two new host species, *Caloplaca obscurella* and *Lecania cyrtella*. The Swedish specimens have distoseptate conidia ca. 25–80 × 8–9.5 µm, corresponding with the protologue. The specimen from Skåne (R. Vicente 197) co-occurred with *Sclerococcum toensbergii*.

Specimen examined: Sweden. Gotland: Grötlingbo par., Hallinge, 57.11536°N 18.36576°E, on *Bacidia rubella*, corticolous on *Ulmus* sp. in old-growth deciduous forest, 9 Aug. 2022, R. Vicente 205 (LD). Skåne: Lund par., Lunds stadspark, 55.69823°N 13.18715°E, on *Lecania cyrtella* and *Caloplaca obscurella*, on *Aesculum hippocastanum* in park with deciduous trees, 5 Feb. 2025, R. Vicente 197 (LD).

Epithamnolia xanthoriae (Brackel) Diederich & Suija

New to Sweden. *Epithamnolia xanthoriae* is a species with a wide distribution and a broad host range, being reported from more than 20 lichen genera (Suija et al., 2024). From Fennoscandia, it was previously known from Norway (Frisch et al., 2022, 2024).

Specimens examined: Sweden. Skåne: Lund par., Lunds stadspark, N of pond, 55.69894°N 13.18573°E, on *Phaeophyscia orbicularis* and *Physcia tenella*, on twigs of *Buxus sempervirens*, 3 Dec. 2024, R. Vicente (LD). Öland: Böda par., Karsnabben, 900 m E Böda church, 57.24670°N 17.07331°E, on *Evernia prunastri*, 10 Nov. 2024, R. Isaksson (UPS).

Gonatophragmium lichenophilum F. Berger & U. Braun

New to Sweden and Fennoscandia. *Gonatophragmium lichenophilum* was described from *Xanthoria parietina*, but has since then been reported from many other hosts, such as *Candelariella concolor*, *Phaeophyscia orbicularis*, *Physcia caesia*, *P. tenella*, *Protoparmeliopsis muralis*, etc. (Berger et al., 2015; Ertz et al., 2024a). It was known from Austria, Belgium, France, Germany, the Netherlands, Switzerland and the United Kingdom (Ertz et al., 2024a). This species is recognisable in the field by its pale brown to cinnamon colonies growing on discoloured parts of the host thallus. Swedish specimens have been collected from *Physcia* sp. (either *P. adscendens* or *P. tenella*), *Melanelixia glabratula* and surprisingly also on *Scoliciosporum* cf. *chlorococcum* and surrounding unidentified crustose lichens. *Melanelixia glabratula* and *Scoliciosporum* cf. *chlorococcum* are new host species. All three specimens are collected from the same locality and are seemingly conspecific. They correspond with the protologue (Berger et al., 2015).

Specimens examined: Sweden. Skåne: Lund par., Lunds stadspark, 55.698129°N 13.185965°E, park with deciduous trees, on *Physcia* sp., foliicolous on *Buxus sempervirens*, 23 Apr. 2024, R. Vicente 175 (LD); ibid., 55.69881°N 13.18688°E, on *Scoliciosporum* cf. *chloroccocum*

and unidentifed crustose lichens, corticolous on *Acer platanoides*, 14 Nov. 2024, R. Vicente 174 (LD); ibid., 55.69905°N 13.18579°E, on *Melanelixia glabratula*, corticolous on *Fagus sylvatica*, 11 Mar. 2025, R. Vicente 202 (LD).

Lichenoconium lichenicola (P. Karst.) Petr. & Syd.

New to Norway and Sweden. *Lichenoconium lichenicola* has a wide but scattered distribution in Europe and is further reported from North America, the Canary Islands and Chile (e.g., Brackel, 2014). In Fennoscandia, it was previously known from two Finnish collections (Karsten, 1887; Puolasmaa et al., 2008). The species is probably confined to *Physcia* spp. and might be rare (Lawrey et al., 2011).

Conidiomata have been measured to 90–130 um. The conidiogenous cells are short cylindrical to weakly ampulliform, (8–)8.5–12.5(–16) × (3–)3.2–4.1(–4.5) µm (n=30) in Norwegian and 8–12 × 2–4.5 µm in Swedish material. The conidia are rather irregular in shape, elliptical to obclavate, truncated at base, dark brown with a distinct, finely warty ornamentation. They have been measured to (5.5–)6.1–7.7(–10) × (3–)3.6–4.3(–4.5) µm (n=80) in Norwegian and 4–7.5 × 2.8–4 µm in Swedish material. Comparable conidia measurements have been given by Hawksworth (1977): (4–)6–8(–9) × 3–4(–6) µm) and Darmostuk (2019): (6.2–)7.2– 8.4(–9.4) × (2.6–)3.2–4.0(–4.4) µm; n=50). *Physcia stellaris* and *P. dimidiata* are new hosts.

Specimens examined: Norway. Innlandet (He): Engerdal, N før Elgå kirke, 62.169°N 11.9477°E, 660 m, on *Physcia stellaris* over *Salix pentandra*, 5 Sep. 2018, H. C. Gjerlaug 7314 (O L-402177). Innlandet (Op): Vågå, Viste, 61.8667°N 9.0095°E, 450 m, on *P. dimidiata*, 5 July 1971, J. Hovda, H. Krog & H. Østhagen 721 (O L-402175). Trøndelag *(ST)*: Oppdal, Finnhøa, 62.3947°N 9.6673°E, 1438 m, on *P.* cf. *dubia* on a bird rock, 9 July 1977, A.J. Sørensen 5808 (O L-401597). Sweden. Småland: Åseda par., Tångamåla, 57.19895°N 15.30234°E, young spruce growing on roadside, on *P. tenella* on twigs, 8 July 2023, R. Vicente 37 (LD 2209748).

Lichenostella griseofusca van der Kolk & Diederich

New to Sweden and Fennoscandia. *Lichenostella griseofusca* is a recently described species that grows on apothecia and thallus of *Lecanora chlarotera*. It was described from material collected in Denmark and the Netherlands (van der Kolk et al., 2024a). The species forms greyish brown colonies that produce staurosporous conidia.

Specimen examined: Sweden. Skåne: Helsingborg par., Turköpsskogen, 56.15069°N 12.73799°E, on *Lecanora chlarotera,* on fallen twig of deciduous tree, 15 Jan. 2025, Suvi Sivula 199 (LD).

Microcera physciae Crous & Boers (Fig. 1B)

New to Sweden and Fennoscandia. *Microcera physciae* grows on corticolous foliose lichens, mainly species in the families Parmeliaceae and Physciaceae. It is known from the Netherlands, Portugal, Spain, the United Kingdom and the USA (Ertz et al., 2024b). The species produces sporodochia and causes an orange discolouration of the host thallus, which is observable in the field. The Swedish specimen from Skåne co-occurred with immature ascomata of *Xenonectriella* sp. A *Fusarium*-type asexual stage resembling *M. physciae* has been reported for *Xenonectriella zimmermanni* (Brackel, 2014; Berger et al., 2020). No sequences are currently available for the genus *Xenonectriella*. Thus, the connection between *M. physciae* and *Xenonectriella* remains to be tested.

Specimens examined: Sweden. Skåne: Lund par., Lunds stadspark, N of pond, 55.69821°N 13.18601°E, on *Physcia tenella* on twigs of bushes, 17 Dec. 2024, R. Vicente 176 (LD, sub. *Didymocyrtis epiphyscia*). Småland: Hjärtlanda par., Hjärtlanda kyrka, 57.35584°N 14.68090°E, on *Parmelia sulcata*, 17 Jan. 2025, R. Isaksson (UPS F-1171873).

Psammina filamentosa van der Kolk & Earl.-Benn.

New to Sweden and Fennoscandia. *Psammina filamentosa* is a facultatively lichenicolous species occurring on the thallus of *Lecanora expallens*, *Lepraria incana* and *Psilolechia lucida* as well as overgrowing green coccoid algae. It is known from Belgium, the Netherlands and the United Kingdom (van der Kolk et al., 2020, 2024b). *Psammina filamentosa* is characterized by its black gelatinous sporodochia and long conidia. The Swedish specimen has 5–8-septate conidia that measure (30–)40–80 × 3–4 µm. In

Sweden, *P. filamentosa* has been observed on the thallus of *Melanelixia fuliginosa* (new host), unidentified crustose lichens and free-living green algae.

Specimen examined: Sweden. Skåne: Lund par., Lunds stadspark, N of pond, 55.69894°N 13.18573°E, on *Melanelixia fuliginosa* and on unidentified crustose lichen, on stem of exotic bush in park, 9 Jan. 2025, R. Vicente 180 (LD).

Pseudocercospora lichenum (Keissl.) D. Hawksw. (Fig. 1C)

New to Sweden and Fennoscandia. *Pseudocercospora lichenum* is a species that grows on *Loxospora cismonica* and *Pertusaria pertusa*. It is known from Austria and Italy (Diederich et al., 2024a). The Swedish specimen has brown conidiophores that are 30–70 µm long, brown and 2–6-septate. The conidia are 1–3-septate, measure 10–16 × 3.2–4 µm and have slight constrictions at septa.

Specimen examined: Sweden. Småland: Bringetofta par., Mattarps bokskog, W of Mattarp, 57.49175°N 14.61581°E, on *Pertusaria pertusa*, 15 Feb. 2025, R. Isaksson (UPS F-1171902).

Sclerococcum phaeophysciae Diederich & van den Boom (Fig. 1D)

New to Sweden and Fennoscandia. *Sclerococcum phaeophysciae* is a species that grows on *Phaeophyscia orbicularis* and is known from Belgium, Germany, Luxembourg, the Netherlands, Poland and Switzerland (Diederich et al. 2024g). The Swedish specimen reported here was found on *P. orbicularis* in a churchyard, growing on *Acer platanoides*. At the same locality, additional specimens were observed on the same lichen host, but growing on *Ulmus glabra*.

Specimen examined: Sweden. Småland: Sävsjö par., Norra Ljunga church, 57.37682°N 14.59487°E, on *Phaeophyscia orbicularis* on *Acer platanoides*, 27 Dec. 2024, R. Isaksson (UPS F-1172061).

Sclerococcum toensbergii Diederich

New to Sweden and Fennoscandia. *Sclerococcum toensbergii* has been reported from corticolous crustose lichens, such as *Biatora alnetorum*, *Caloplaca cerina*, *Megalaria pulverea* and *Pertusaria carneopallida*. It was known from the USA and France (Diederich & van den Boom, 2017; Brackel & Wirth, 2021; Diederich et al., 2024g). The Swedish specimen was found on *Caloplaca obscurella* and surrounding thalli of *Lecania cyrtella*, thus extending the known host range. It was collected from a shaded stem of *Aesculum hippocastanum*, together with many nitrophilous lichens. The specimen co-occurred with *Ellisembia lichenicola*, which likewise is new to Sweden.

The Swedish specimen has submuriform, smooth-celled conidia with (6–)8–15(–20) cells. The conidia measure 11–18 × 7–15 µm, the individual cells measure 3.5–6 µm and the evenly thickened cell wall is 0.5–1 µm wide. The Swedish specimen corresponds with the protologue by Diederich & van den Boom (2017). Brackel & Wirth (2021) reported that French specimens had a paler lower part of the conidia, something which does not occur in the Swedish material. Whether *S. toensbergii* has a broad host range or represents an aggregate of morphologically similar taxa requires further molecular studies. Pending further investigations, we include our specimen in *S. toensbergii*, as was done by Brackel & Wirth (2021).

Specimen examined: Sweden. Skåne: Lund par., Lunds stadspark, 55.69823°N 13.18715°E, on *Lecania cyrtella* and *Caloplaca obscurella*, on *Aesculum hippocastanum* in park with deciduous trees, 5 Feb. 2025, R. Vicente 198 (LD).

Taeniolella cladinicola Alstrup

New to Sweden. *Taeniolella cladinicola* is a lichenicolous hyphomycete that grows on *Cladonia* spp. It is known from several European countries including Denmark (holotype) and Finland (Alstrup, 1993; Westberg et al., 2021). Its presence in Sweden was expected. *Taeniolella cladinicola* is characterized by causing reddish or purplish brown discolorations of the infected host thallus. The similar *Talpapellis beschiana* does not cause such discolorations. For further distinguishing characters, see Alstrup (1993) and Heuchert et al. (2018, 2024b).

Specimens examined: Sweden. Småland: Almesåkra par., Vikskvarn NR, ca. 350 m N of Storkvarnen, 57.53182°N 14.60616°E, on *Cladonia* sp., 8 Mar. 2025, R. Isaksson (UPS F-1171913). Uppland: Boo par., Velamsund, 59.33761°N 18.30003°E, pine forest on rocky

terrain, on podetia of *Cladonia arbuscula*, 29 May 2024, R. Vicente 150 (LD).

Taeniolella diploschistis Heuchert, U. Braun, Diederich & Zhurb.

New to Sweden and Fennoscandia. *Taeniolella diploschistis* is confined to *Diploschistes scruposus*. It is known from Asia, Europe and South America, e.g., Czech Republic, France, Germany, Luxembourg, Peru, Switzerland and Asian Russia (Taymyr Peninsula & Yakutia) (Heuchert et al., 2019; Brackel, 2021; Zhurbenko, 2021; Heuchert et al., 2024b; Zhurbenko et al., 2025). The species forms dense blackish colonies on host thallus and apothecia, up to 80 µm wide (e.g., Heuchert et al., 2019; Zhurbenko, 2021). Infected parts of the host become necrotic but are usually not destroyed. The characteristics of the Swedish material correspond with the protologue (Heuchert et al. 2019).

Specimens examined: Sweden. Södermanland: Nacka par., Skuru, Nyckelviken, 59.32572°N 18.19715°E, small exposed, south facing, vertical siliceous cliffs, on *Diploschistes scruposus*, 28 May 2024, R. Vicente 148 (LD); ibid., Duvnäs utskog, 59.32908°N 18.19619°E, on *D. scruposus* on a rather open base rich shore cliff, 28 May 2024, O. Hammarström (UPS F-1161133). Uppland: Österåker par., N. Åsättra. 59.53290°N, 18.43704°E, on *D. scruposus* on a west-facing granite cliff in a pine-spruce forest, 12 Mar. 2025, O. Hammarström (UPS).

Talpapellis lendemeri Diederich

New to Sweden, Fennoscandia and Europe. *Talpapellis lendemeri* was described from *Lecania cyrtella* and was previously only known from the type locality in Canada (Heuchert et al., 2024b). It is characterized by often aggregated, never branched conidiophores, 0–1-septate conidia and by its host choice. Aseptate conidia are distinctly shorter than septate conidia. The Swedish specimens have conidiophores that measure 11–35 × 3.5–4.5 µm, the conidia are catenate and short ellipsoidal to barrel-shaped. Aseptate conidia have been measured to 4.5–6.5 × 2.5–3.5 µm and 1-septate conidia to 4.5–8 × 3–4.5 µm. The latter sometimes have faint constriction at the septa. Percurrent proliferations result in 1–2 flaring annelations. The Swedish specimens correspond with the protologue (Heuchert et al., 2024b). The aggregated conidiophores sometimes cover the host apothecia almost completely, which is easily observed in the field with a hand lens.

One Swedish specimen (R. Vicente 193) co-occurred with *Neoechinodiscus lesdainii* and *Trimmatostroma vandenboomi*, the latter likewise new to Fennoscandia.

Specimens examined: Sweden. Skåne: Lund par., Värpinge, Lunds reningsverksdammar, 55.69812°N 13.15876°E, on *Lecania cyrtella*, corticolous on *Juglans* sp., 22 Jan. 2025, R. Vicente 193 (LD); ibid., 55.69822°N 13.15907°E, on apothecia of *L. cyrtella*, corticolous on *Sambucus nigra*, 22 Jan. 2025, R. Vicente RV2507 (UPS L-1160989).

Trimmatostroma acetabuli Diederich

New to Sweden and Fennoscandia. *Trimmatostroma acetabuli* is a characteristic hyphomycete growing on *Pleurosticta acetabulum* that is known from several European countries (Diederich et al., 2024h). The reticulate hyphal network growing on the host thallus, sometimes on necrotic patches, may be readily observed in the field. Diederich (2021) and Diederich et al. (2024h) reported *T. acetabuli* to have immersed to superficial conidiophores, but we have also observed short ascending and erect conidiophores on the host thallus in one Swedish specimen (R. Vicente 163).

Specimens examined: Sweden. Skåne: Lund par., Svanegatan, 55.70311°N 13.18157°E, on *Pleurosticta acetabulum* on *Quercus* cf. *robur*, 16 July 2024, R. Vicente 163 (LD); ibid., Biologihuset, Tornavägen, 55.71328°N 13.20514°E, on *P. acetabulum* on *Acer platanoides*, 29 Sep. 2024, R. Vicente 164 (LD).

Trimmatostroma vandenboomi Diederich

New to Sweden and Fennoscandia. *Trimmatostroma vandenboomi* has a wide host range, including *Amandinea punctata*, *Flavoplaca ruderum*, *Candelariella medians*, *Catillaria nigroclavata*, *Lecania* sp., *Lecanora conizaeoides*, *Lecidella elaeochroma*, *Myriolecis albescens*, *M. dispersa* and *Pyrenodesmia chalybaea*. The species is known from several European countries (Diederich, 2021; Diederich et al., 2024h).

Swedish specimens have been collected on *Amandinea punctata* and *Lecania cyrtella*.

Specimens examined: Sweden. Skåne: Bara par., Bara, 55.58107°N 13.18461°E, on *Amandinea punctata* on *Betula pendula* in park, 24 Dec. 2024, R. Vicente 179 (LD); Lund par., Värpinge, Lunds reningsverksdammar, 55.69812°N 13.15876°E, on *Lecania cyrtella* on *Juglans* sp., 22 Jan. 2025, R. Vicente 193 (LD, sub. *Talpapellis lendemeri*); ibid., R. Vicente 194 (LD, sub. *Neoechinodiscus lesdainii*, duplicate in UPS).

Venturia lichenophila U. Braun, Diederich & Brackel

New to Fennoscandia. *Venturia lichenophila* is a recently described hyphomycete that was previously reported from Italy and Luxembourg. Reported host lichens are *Physcia adscendens*, *P. tenella*, *Physconia distorta* and *Ramalina fastigiata* (Braun & Diederich, 2024). In Norway, *V. lichenophila* was found over large, blackened pycnidia of *P. distorta*, while Swedish material was found on weakened thalli of *Phaeophyscia orbicularis* and *Xanthoria parietina*, heavily infected with other lichenicolous fungi. *Phaeophyscia orbicularis* and *X. parietina* are new hosts. The conidia were (10.0–)11.5–17.6(–21.0) × (3.0–)3.5–4.5(–5.0) µm in size and 0–3-septate (n=30) in Norwegian and (8.0–)9.2–15.2(–18.0) × 3.3–4.2(–4.5) µm in size and 0–4-septate (n=10) in Swedish material. A detailed description and illustration of this species can be found in Diederich et al. (2024), where conidia are given as slightly narrower, (5–)8–18(–28) × 2–4 µm, 0–4(–7)-septate.

Swedish specimens growing on *X. parietina* co-occurred with *Bryostigma parietinaria, Illosporiopsis christiansenii*, *Telogalla olivieri*, *Xanthoriicola physciae* and *Xylohyphopsis xanthoriicola*, the host thallus often weakened. The specimen growing on *P. orbicularis* is also weakened due to infections with *Xenonectriella physciacearum*. Braun & Diederich (2024) noted that *V. lichenophila* occurs on *P. tenella* and *P. adscendens* which are killed and weakened by *Erythricium aurantiacum*. Our observations further indicate that *V. lichenophila* is a species which appears after the host has become weakened or killed by other lichenicolous fungi.

Specimens examined: Norway. Innlandet (Op): Gausdal, Bauker, 61.2765°N 10.1638°E, 400–540 m, on *Physconia distorta*. 1934, C. Platou s.n. (O L-402176). Sweden. Skåne: Hardeberga par., Södra Sandby, 55.70887°N 13.32785°E, small wooded patch, on *Xanthoria parietina* on fallen twig of *Fraxinus excelsior*, 27 Dec. 2024, R. Vicente 181 (LD, sub. *Bryostigma parietinarium*); ibid., Södra Sandby par., Södra Sandby, 55.71241°N 13.33445°E, on *X. parietina* on *Fagus sylvatica*, 27 Dec. 2024, R. Vicente 183 (LD, sub. *Xylohyphopsis xanthoriicola*); ibid., 55.71669°N 13.34237°E, on *Phaeophyscia orbicularis* and *X. parietina*, corticolous on *Sorbus* sp., 27 Dec. 2024, R. Vicente 184 (LD). Öland: Sandby par., Ekelunda alvar, 200 m north of Ekelunda 56.57408°N 16.57701°E, on *Physcia tenella*, 28 Dec. 2024, R. Isaksson (UPS F-1172068).

Xylohyphopsis xanthoriicola Pinault & Diederich

New to Sweden and Fennoscandia. *Xylohyphopsis xanthoriae* was described based on specimens growing on *Xanthoria parietina* and is only known from its type locality in France. (Pinault & Diederich, 2024). The species is characterized by micronematous conidiophores that gradually merge into conidial chains, occurring single or in clusters, with small pale to brown conidia measuring 3–5 × 2.5–5 µm (Pinault & Diederich, 2024).

Specimens examined: Sweden. Skåne: Södra Sandby par., Södra Sandby, 55.71241°N 13.33445°E, on *Xanthoria parietina* on *Fagus sylvatica*, 27 Dec. 2024, R. Vicente 183 (LD); ibid., 55.71669°N 13.34237°E, on *X. parietina* on *Sorbus* sp., 27 Dec. 2024, R. Vicente 184 (LD).

ACKNOWLEDGEMENTS

Paul Diederich is thanked for confirming the species *Acremonium pertusariae* and *Pseudocercospora lichenum* based on photos. Suvi Sivula is thanked for donating material of *Lichenostella griseofusca* and allowing us to include it in this manuscript. Thanks to Martin Westberg for providing updated numbers from Santesson's checklist (database). Andreas Frisch thanks the Norwegian Biodiversity Information Centre (NBIC) for financial support through the NTI species project 5-24, Mapping uncharted diversity 2: Arthoniomycetes, Leotiomycetes and Sordario-

mycetes. We thank the reviewers Ave Suija and Inga Jüriado for comments and corrections that improved this manuscript.

COMPETING INTERESTS

The authors declare none.

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