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Catalogue of the lichenicolous fungi of Italy

Abstract

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This catalogue provides a comprehensive synthesis of the lichenicolous fungi known from Italy, based on historical literature, recent studies, and extensive fieldwork conducted since 2006. After a brief overview of the history of lichenicolous mycology in Italy – from its beginnings in the mid-19th century through periods of stagnation and renewed research – the work presents two annotated lists. The main list includes 518 taxa of genuine, obligately non-lichenised lichenicolous fungi recorded in Italy, while a second list comprises 76 taxa that are facultatively lichenicolous, slightly lichenised, or taxonomically uncertain. For each taxon, host species in Italy, commonly used synonyms, and regional records are provided. The catalogue documents both the remarkable work of the early enthusiasts during the "Golden Age" and the substantial increase in known diversity over the last decades, placing Italy among the best-studied regions worldwide for lichenicolous fungi and accounting for more than one fifth of all obligately lichenicolous, non-lichenised fungi currently known globally.

Key words: lichens, fungi, regional records.

Introduction

The investigation of the lichenicolous fungi of Italy began in the second half of the 19th century with the works of Martino Anzi, Francesco Baglietto, Antonio Carestia, Giuseppe De Notaris, Antonio Jatta, Abramo Bartolomeo Massalongo and in South Tyrol (Trentino-Alto Adige/Südtirol), now belonging to Italy, with those of Ferdinand Arnold and Ernst Kernstock. As in other countries a long gap followed, until, from the end of the 20th century onwards, Josef Hafellner, Pier Luigi Nimis, Domenico Puntillo, Mauro Tretiach and several others included lichenicolous fungi in lichenological investigations. In 2006, the author began a more or less systematic study of the lichenicolous fungi of Italy, starting in Sicilia. Up to now the regions Sicilia, Calabria, Puglia, Basilicata, Abruzzo, Lazio, Campania, Umbria, Marche, Molise, Sardegna, Toscana and parts of Emilia-Romagna, Lombardia, Liguria, Piemonte, Trentino-Alto Adige, Veneto and Friuli-Venezia Giulia were visited.

Material and Methods

In the main list only genuine (obligately non-lichenized) lichenicolous fungi are listed. Species with a strongly reduced thallus, not-obligately lichenicolous species and all records assigned with "cf." or "aff." are placed in a separate list. For lichenicolous lichens see the checklist of lichens (Nimis 2026). Papers of the author are abbreviated with "B" (Brackel). In the case that an author reported a species for several regions, these are marked with reference symbols, and the corresponding citation is given at the end of the paragraph. Synonyms used in the cited literature are listed under the current species name. In the case of dubious records an "?" is added at the abbreviation of the region.

The host of the type species is indicated with an asterisk (*) as is the reference with the original description, if the type originates from Italy. The citation of herbarium entries (TSB, M etc.) is only given, if the find is not included in one of the literature citations or if the connection between them is not clear. Dubious hosts, collectors or records are marked with question marks (etc.: ¿*Caloplaca cerina*?, ¿Massalongo?, ¿SAR: Nimis & Poelt 1987?). The nomenclature of the lichenicolous fungi follows mainly Diederich & al. (2025), and that of the host lichens follows Nimis (2026). For internet entries and for new finds the full record is given like written on the herbarium specimen.

All work was carried out using own resources.

History of the exploration of the flora of lichenicolous fungi in Italy and recent studies

It was in 1845, at the beginning of the Golden Age of Lichenology, that Giuseppe De Notaris described in his first contribution to lichenology "*Abrothallus* novum lichenum genus" the first lichenicolous fungus for Italy, *Abrothallus bertianus*. At that time, he interpreted the black apothecia on the olive-green thallus as the fructifications of a lichen, not as a non-lichenised fungus on the thallus of *Melanelixia subaurifera*. Only one year later, De Notaris described a second species *Abrothallus buellianus* on *Parmelina tiliacea*, this time clearly indicated as a parasite on a lichen ("cresce parasitico sul tallo della *Parmelia tiliacea*"), although he was not sure whether his new species was a parasitic lichen or a non-lichenised fungus. Parasitism among lichens was already known at that time, as De Notaris mentions in the same paper *Peziza epiblastematica* and *P. miliaris* (both now *Scutula*) as finds reported by Vincenzo de Cesati.

Some years later, when Abramo Bartolomeo Massalongo described *Sphaeria apotheciorum* (now belonging to *Arthonia* or *Bryostigma*) on *Polyozosia albescens*, there was no longer doubt that this was a parasitic fungus and not a lichen, as no trace of thallus or lichenisation was seen in the apothecia of the host. And this was not the only lichenicolous fungus described by Massalongo; several other *Sphaeria* species followed: *Sphaeria schaereri* (now *Stigmidium s.*), *Sphaeria psoromatis* (now *Clypeococcum p.*), *Sphaeria variolariae* (now *Orbicula v.*), and *Nesolechia punctum* (now *Bachmanniomyces p.*).

A big contribution to the flora of lichenicolous fungi of Italy did Martino Anzi, both in the description of new species and in the record of known species for Italy. Apart from five species described by him from Italy, among them for example *Leciographa plumbina* (now *Toninia p.*), he reported 26 species new to Italy, several of them described by Massalongo.

Similarly, the duo of Francesco Baglietto and Antonio Carestia reported several species new to Italy, besides their own descriptions, e.g. *Microthelia versispora* (now *Polycoccum v.*).

At the end of the 19th century two lichenologists from German-speaking countries, Ferdinand Arnold from Bavaria and Ernst Kernstock from Austria, contributed to the flora of lichenicolous fungi of South Tyrol, at that time part of Austria, now Italy. Especially Arnold was highly active in different parts of Trentino-Alto Adige, reporting almost 50 lichenicolous fungi new to Italy, including four descriptions, e.g. *Tichothecium molendoi* (now *Arthonia molendoi*). Kernstock added ten species, among them the newly described *Cercidospora caudata*.

In the begin of the 20th century Antonio Jatta published the lichenological part in Flora Italica Cryptogama (Jatta 1909-1911), where also some lichenicolous fungi new to Italy are listed. This first comprehensive work on lichens in Italy was not, as could be expected, the start of a new wave of research, but, as Pier Luigi Nimis writes, the "gravestone" of the Golden Age. Political, economic and cultural trends were unfavourable for lichenology and similar "non-productive" fields of science, in addition to the difficult conditions during and after the First and Second World Wars.

Apart from some single publications of new finds of lichenicolous fungi (Georg Lettau, Hannes Hertel, Josef Hafellner, David Leslie Hawksworth) the starting point of a new period was the foundation of the Società Lichenologica Italiana and the international lichenological excursion to Sardegna, which brought 14 species of lichenicolous fungi new to Italy, comprising one new species, *Rhizocarpon* (*lusitanicum* var.) *ochrolechiae*, one of the non-lichenised, parasitic species of the genus and the first lichenicolous fungus described from Italy after nearly 80 years.

In the following years, both Italian lichenologists and those from neighboring European countries contributed to the knowledge of lichenicolous fungi in Italy. Of particular note are Pier Luigi Nimis, Mauro Tretiach and Domenico Puntillo among the Italian researchers and Josef Hafellner and Dagmar Triebel among foreign contributors. Besides many new records there are also some newly described species like, again, an *Abrothallus*, *A. bryoriarum* by Josef Hafellner, *Nectria brutia* by Paul Diederich and Domenico Puntillo and *Lichenochora aprica* by Josef Hafellner and Nikolaus Hoffmann.

In 2006/2007 we began a more or less systematic investigation of the Italian lichenicolous fungi, starting from the south in Sicilia. In twice three weeks we visited lichenologically interesting sites all over the island, collecting all lichenicolous fungi that could be found. Apart from the newly described *Zwackhiomyces echinulatus*, this resulted in a list of 34 species new to Italy.

In the following years we moved northwards, covering the regions Puglia and Basilicata, then the regions of central Italy (Abruzzo, Lazio, Umbria, Marche, Toscana), later Molise and Campania. In 2014/2015 Puntillo led me on two excursions through Calabria and in 2019 Franz Berger and I published our finds from separate excursions to Sardegna. In recent years, smaller excursions have taken place in northern Italy including the Alps, but there are still many gaps. All in all, this resulted in a list of 217 species new to Italy (among these 19 together with Berger and 26 with Puntillo). 21 species were described as new to science from Italian material.

In figure 1 the number of species of lichenicolous fungi known from Italy is illustrated. The three periods of investigation are clearly visible: The "Golden Age" from 1840 to 1910, the time of stagnation from 1910 to 1980 and the modern period after 1980. It is astonishing how successful the early researchers were in identifying the newly discovered group of organisms with their restricted possibilities regarding technical equipment, literature, communication and last but not least travelling. Additionally, several of them were employed in professions that had little to do with lichenology or mycology.

After 1910 we recognise a time of stagnation in the field of lichenology. During the two big wars and in the periods after people were occupied with struggling for life and in the field of science subjects with concrete implications for agriculture and technology were in demand. The trauma of the Second World War clearly lasted for a long period, even during the "economic miracle" after the second world war, people enjoyed freedom and (often modest) prosperity. Only when a generation had grown up that had not experienced the horrors of war, the study of sciences that did not promise immediate economic benefits, did progress.

With the vastly improved possibilities regarding technical equipment, literature and travelling, the institutionalization of lichenology at universities and more leisure time for researchers working professionally in other fields, the number of known species of lichenicolous fungi increased dramatically. We have now reached 517 species, which is more than 1/5 of the number of worldwide known lichenicolous fungi (2442 obligately lichenicolous, non-lichenised fungi according to Diederich & al. (2025).

A similar picture offers the figure 2, showing the number of lichenicolous fungi described from Italian specimens. However, it is obvious that half of all lichenicolous fungi from Italy that we know today were already described in the Golden Age. Of course, at that time only a few lichenicolous fungi were known and the chance that a find would represent a new species, was far bigger than today. Nevertheless, to determine whether this was the case, was a much bigger problem than today with the (relatively) easy access to publications.

Overview on the results

The list of genuine lichenicolous fungi comprises 518 taxa. The first checklist of Italian lichenicolous fungi (Brackel 2016) mentioned 492 species. Approximately 45 of them were deleted from the main list and moved to the separate list and several names had to be deleted because anamorph-teleomorph connections were detected and both forms now are listed under their mutual name. Consequently, about 80 new taxa of lichenicolous fungi have been added to the list during the last ten years.

The second list comprising facultative lichenicolous or slightly lichenised taxa, as well as specimens noted as "aff.", "cf." or "sp.", all treated here as distinct taxa, comprises 76 entities.

The "lichenicolous index" (LI) was introduced by Zhurbenko (2007e; in Russian), defined as taxa of lichenicolous fungi per taxa of lichens within an area; from his checklist (Zhurbenko 2007d) it is clear, that he included, apart from the genuine lichenicolous fungi, also several of the here called second part, e.g. *Athelia arachnoidea* and *Chaenothecopsis* spp. Since then, the LI has been calculated for several other countries, mostly with a more or less unclear definition of "lichenicolous fungus" and, to lesser extent, also of lichens.

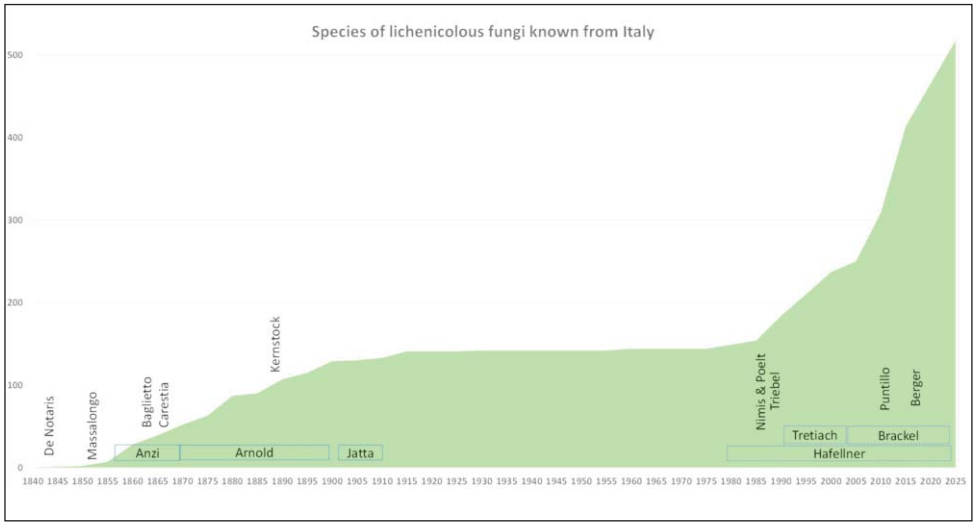

Fig. 1: Species of lichenicolous fungi known from Italy, from the begin in 1840 to 2025 with the main collectors.

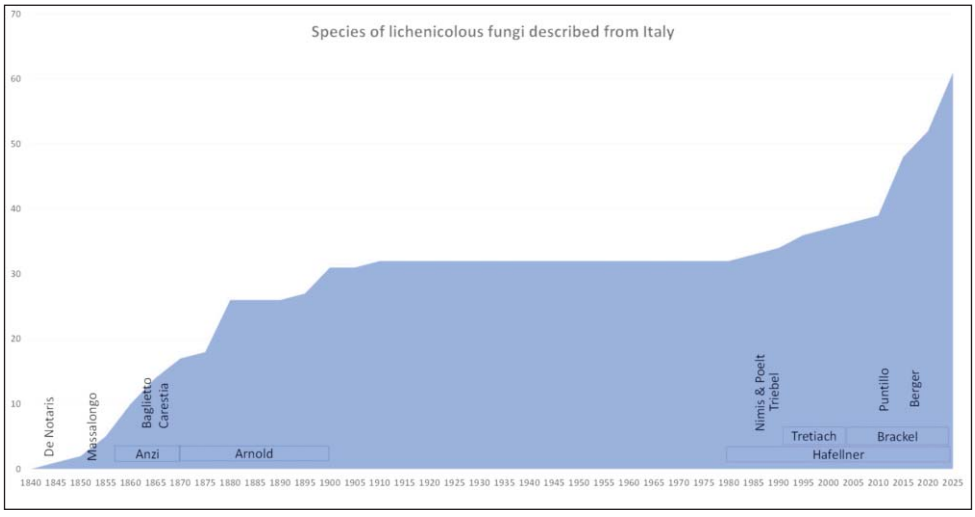

Fig. 2: Species of lichenicolous fungi described from Italian specimens, from the begin in 1840 to 2025 with the main collectors.

Fig. 3: The regions of Italy and the numbers of reported species of genuine (obligately non-lichenised) lichenicolous fungi, + taxa of the list 2 (facultative or slightly lichenised or somehow dubious entities). ABR = Abruzzo, BAS = Basilicata, CAL = Calabria, CAM = Campania, EMI = Emilia-Romagna, FVG = Friuli-Venezia Giulia, LAZ = Lazio, LIG = Liguria, LOM = Lombardia, MAR = Marche, MOL = Molise, PIE = Piemonte, PUG = Puglia, SAR = Sardegna, SIC = Sicilia, TAA = Trentino-Alto Adige, TOS = Toscana, UMB = Umbria, VAO = Valle d'Aosta, VEN = Veneto.

We propose here, to include only the genuine lichenicolous fungi, i.e. the non-lichenised, obligately lichenicolous species of Ascomycota and Basidiomycota; parasitic lichens, facultative lichenicolous fungi, and species from other "fungus" groups such as slime molds are not considered, nor are records noted with "aff.", "cf." "sp." or similar. To distinguish between the LI generated from a list of genuine lichenicolous fungi or from a broader list (incl. species of the "second list"), we propose to mark it with "s" for "strict" and "b" for "broad", i.e. LI_s and Li_b (Table 1).

In Darmostuk (2020) Shivarov & al. (2021), Varga & al. (2021), Brackel & Wirth (2023), Zhurbenko (2025) some values are given for the LI in different regions, always with a broader definition of lichenicolous fungi. They have a wide range, depending on the intensity of research, diversity of lichens and area of the country (Li_b).

Here Italy had to be valued with 0.21 (including species of the second part) and would range therefore in the group with a quite well studied flora of lichenicolous fungi, given that the lichen flora of Italy is exceptionally well studied.

List 1. Genuine lichenicolous fungi

***Abrothallus* De Not.**

Selected literature: Suija 2006, Suija & al. 2015, 2018, 2024.

***Abrothallus acetabuli* Diederich**

Mycotaxon 37: 298 (1990)

Hosts in Italy: *Pleurosticta acetabulum** (thallus and apothecia).

BAS: B 2011a (distributed in Hafellner, Lichenicolous Biota 343); **EMI**: B 2015a; **SAR**: Brackel & Berger 2019.

Note: In Italy known from the teleomorph and the *Vouauxiomyces* anamorph.

Abrothallus bertianus* De Not.

Abrothallus novum lichenum genus: 1 (1845)

Bas.: *Abrothallus glabratulae* I. Kotte

Hosts in Italy: *Melanelixia glabratula*, *M. subaurifera**, *Melanohalea elegantula*, *M. exasperata*, *M. exasperatula* (thallus and apothecial margin).

ABR: B 2015a; **LIG**: De Notaris 1845: 352, 1846*: 192 (Porto-Maurizio), Massalongo 1852: 88, Suija & al. 2018; **LOM**: B 2010d; **SAR**: Brackel & Berger 2019; **SIC**: B 2008b; **TOS**: B 2015a; **TAA** Lettau 1958: 141, Kotte 1909: 80 (on *Melanelixia glabratula*), BSM 2006–2025[1)]. – Dubious (growing on *Xanthoparmelia*): **TAA**: Kernstock 1896: 302 (as *A. parmeliarum* on *Imbricaria prolixa* = *Xanthoparmelia pulla*), BSM 2006–2025[2)].

[1)] Tirol, am Tamers an der Straße von Wolkenstein Gegen Karrerpass, auf *Melanelixia glabratula*, as *A. parmeliarum*, 09.1909, F. Arnold (M-0044165). [2)] Prov. Bolzano: Val Gardena, Ortisei, c. 2,2 km NEE of centre, road 242 Ponte Gardena, rocks in meadow at the NW roadside, c. 1150 m, 46°35'N, 11°38'E, on *Xanthoparmelia*, 15.09.1991, D. Triebel & G. Rambold (M-0044062).

Note: Records on *Xanthoparmelia* spp. should be checked for *Abrothallus caerulescens*/*A. tulasnei*.

Abrothallus bryoriarum* Hafellner
Herzogia 10: 3 (1994)
Hosts in Italy: *Bryoria capillaris** (thallus).
TAA: Hafellner 1994*.

Abrothallus buellianus* De Not.
Giorn. Bot. Ital. 2(1): 192 (1846)
Hosts in Italy: *Parmelina quercina*, *P. tiliacea** (thallus).
EMI: De Notaris 1846*: 193 (Bobbio), Massalongo 1852: 88; **SAR**: Brackel & Berger 2019.
Note: A detailed description of the species is provided in Suija & al. 2018.

***Abrothallus caerulescens* I. Kotte**
Centralbl. Bakteriol. Parasitenk. Abt. 2, 24: 86 (1909)
Hosts in Italy: *Xanthoparmelia conspersa** (thallus).
CAL: Brackel & Puntillo 2016; **LOM**: B 2013b; **SIC**: B 2008b; **TAA**: Kernstock 1890: 322 (as *A. parmeliarum* on *Imbricaria conspersa*); **TOS**: B 2015a.
Note: In the past often included in *A. parmeliarum* (Sommerf.) Arnold.

Abrothallus cetrariae* I. Kotte
Centralbl. Bakteriol. Parasitenk., Abt. 2, 24: 82 (1909)
Hosts in Italy: *Platismatia glauca** (thallus).
TAA: Kotte 1909* (Paneveggio, Dolomiti).

Abrothallus chrysanthus* Stein
Kryptogamenflora von Schlesien II, 2: 211 (1879)
Hosts in Italy: *Usnea florida**.
TAA: Stein 1879*: 211 (Gossensass, Brenner).

***Abrothallus cladoniae* R. Sant. & D. Hawksw.**
Notes Roy. Bot. Gard. Edinburgh 46: 392 (1990)
Hosts in Italy: *Cetraria islandica*, *Cladonia foliacea* (as *C. convoluta*) (thallus, basal squamules).
LOM: B 2013b, **UMB**: B 2015a.

***Abrothallus lobariae* (Diederich & Etayo) Diederich & Ertz**
Bryologist 121: 392 (2018)
Bas.: *Phoma lobariae* Diederich & Etayo; Syn.: *Abrothallus puntilloi* Brackel.
Hosts in Italy: *Lobaria pulmonaria** (thallus).
BAS: B 2011a, Brackel & Puntillo 2016*; **CAL**: Brackel & Puntillo 2016; **LAZ**: B 2015a; **TOS**: Brackel & Puntillo 2016.
Note: For a long time, only the anamorph of the species (*Phoma lobariae*) was known. Suija & al. 2024 showed that the recently described *Abrothallus puntilloi* represents the teleomorph of the species.

Tab. 1: Numbers of lichenicolous fungi, lichens (according to Nimis & al. 2026), the LI (lichenicolous index) and the area of each region and in total for Italy. Written in bold are LI-Indices > 0.1. See Fig. 3 for the abbreviations of the regions.

	lichenicolous fungi s. str.	lichenicolous fungi s. lat.	lichens	LI_s	LI_b	area (km²)
ABR	67	73	761	0. 09	0. 10	10,795
BAS	75	83	688	**0. 11**	**0. 12**	9,995
CAL	151	165	1047	**0. 14**	**0. 16**	15,081
CAM	78	83	886	0. 09	0. 09	13,590
EMI	78	85	855	0. 09	0. 10	22,123
FVG	62	69	1217	0. 05	0. 06	7,856
LAZ	73	79	787	0. 09	**0. 10**	17,208
LIG	50	55	1161	0. 04	0. 05	5,420
LOM	99	111	1375	0. 07	0. 08	23,863
MAR	39	42	554	0. 07	0. 08	9,694
MOL	46	47	513	0. 09	0. 09	4,438
PIE	73	78	1344	0. 05	0. 06	25,340
PUG	52	56	641	0. 08	0. 09	19,366
SAR	154	166	1291	**0. 12**	**0. 13**	24,090
SIC	111	117	1013	**0. 11**	**0. 12**	25,703
TAA	183	204	1702	**0. 11**	**0. 12**	13,607
TOS	166	183	1279	**0. 13**	**0. 14**	22,990
UMB	36	38	563	0. 06	0. 07	8,456
VAO	10	13	853	0. 01	0. 02	3,263
VEN	52	64	1248	0. 04	0. 05	18,391
total	518	594	2851	**0. 18**	**0. 21**	301,269

0.02 (Serbia)
0.03 (Romania)
0.04 (Bulgaria)
0.05 (Greece)
0.08? (Russia)
0.13 (world; LI_s = 0.12)
0.10 (Albania)
0.11 (Hungary)
0, 10 (Germany: Black Forest)
0.13 (USA and Canada)
0.13 (Ukraine)
0.18 (Fennoscandia)
0.19 (France)
0.21 (Germany: Baden-Württemberg)
0.21 (Belgium-Luxembourg-N-France)
0.23 (British Isles)
0.24 (Germany: Bavaria; LI_s = 0.23)
0.30 (Russian Meta-Arctic)
0.32 (Ukrainian steppe zone)
0.25 (Germany: LI_s)

***Abrothallus microspermus* Tul.**

Ann. Sci. Nat., Bot. sér. 3, 17: 115 (1852)

Syn.: *Vouauxiomyces truncatus* (B. de Lesd.) Dyko & D. Hawksw. (anamorph).

Hosts in Italy: *Flavoparmelia caperata** (thallus).

Italy (without site): Saccardo 1889: 740; **CAL**: Brackel & Puntillo 2016; **LIG**: B 2025; **LOM**: B 2013b; **PIE**: Baglietto & Carestia 1865–1867: 404, 1880: 351; **SAR**: Brackel & Berger 2019; **TOS**: B 2008c, 2015a, 2025; **VEN**: Jatta 1909–1911.

Note: In Italy, the species is known both as the anamorph and as the teleomorph.

***Abrothallus nephromatis* Suija & Pèrez-Ortega**

Phytotaxa 195: 213 (2015)

Hosts in Italy: *Nephroma* sp. (thallus).

Italy: Suija & al. 2015 without further notes.

***Abrothallus parmeliarum* (Sommerf.) Arnold**

Flora 57: 102 (1874)

Bas.: *Abrothallus smithii* Tul.

Hosts in Italy: *Parmelia saxatilis**, *P. sulcata* (thallus).

Italy (without site): Jatta 1909–1911: 766: "Ad thallum *Cetrariae* et *Parmeliae* parasiticus totam per Italiam haud rarus" (used in a wide sense, including *A. bertianus*, *A. buellianus*, *A. cetrariae*). The following records refer only to those on hosts of the genera *Parmelia* and *Punctelia*.

CAL: Brackel & Puntillo 2016; **FVG**: Hafellner 1998c; **LOM**: Anzi 1860: 116 (as *A. smithii* on *Parmelia saxatilis*), BSM 2006–2025[1)]; **PIE**: Baglietto & Carestia 1865–1867: 404, 1880: 351, BSM 2006–2025[2)]; **PUG**: Jatta 1875: 238; **SIC**: B 2008b; **TAA**: BSM 2006–2025[3)], B 2013b; **VEN**: Massalongo 1852: 88 (as *A. buellianus* on *Parmelia saxatilis*).

[1)] Valle Malenco, Valle Bregaglia, on *Parmelia saxatilis* (M-0044187; Anzi, Lich. Rar. Langob. Exs.). [2)] Riva in Valsesia, sulla *Cetraria pinastri* e *Parmelia saxatilis*, A. Carestia, no date (M-0044186; Baglietto, Carestia & De Notaris, Erb. Critt. Ital. Ser. I). [3)] Südtirol, Bozen, Sarntaler Alpen zwischen Unterhornhaus (Rittner Horn) und WH. Pommern (Ritten), an *Larix decidua*, 1700 m, 27.09.1952, H. Doppelbaur, (M-0044192).

***Abrothallus parmotrematis* Diederich**

Bull. Soc. nat. luxemb. 112: 29 (2011)

Hosts in Italy: *Parmotrema perlatum* (thallus).

TOS: B 2025.

Abrothallus peyritschii* (Stein) C. Kotte

Centralbl. Bakteriol. Parasitenk., Abt. 2, 24: 76 (1909)

Hosts in Italy: *Cetraria pinastri** (thallus).

LOM: Anzi 1860: 116 (as *A. smithii* on *Cetraria pinastri "prunastri"*); **PIE**: Baglietto & Carestia 1880 (as *A. parmeliarum* on *Cetraria pinastri*), Baglietto & Carestia 1865–1867: 404 (as *A. smithii* on *Cetraria pinastri*); **TAA**: Kernstock 1890: 331, 1892b: 349 (as *A. smithii/A. parmeliarum* on *Platysmatis pinastri*), Kotte 1909: 76, Keissler 1930: 212, BSM 2006–2025[1)]; **VEN**: B 2013b.

[1)] Tirol, am Grunde einer Lärche am Waldsaum gegenüber St. Ulrich in Gröden, auf *Platysma pinastri*, 08.1895, F. Arnold, (M-0044104). – Tirol, Hühnerspiel bei Gossensass, auf *Cetraria pinastri* auf *Larix*, 09.1878, F. Arnold, (M-0044112; lectotype).

***Abrothallus prodiens* (Harm.) Diederich & Hafellner**
Mycotaxon 37: 300 (1990)
Hosts in Italy: *Hypogymnia physodes** (thallus).
VEN: B 2013b.

***Abrothallus suecicus* (Kirschst.) Nordin**
Svensk Bot. Tidskr. 58: 226 (1964)
Syn.: *Vouauxiomyces ramalinae* (Nordin) D.Hawksw.
Hosts in Italy: *Ramalina canariensis*, *R. farinacea*, *R. fastigiata*, *R. fraxinea*, *Ramalina* sp. (thallus and rarely apothecia).
BAS: B 2011a; **CAL**: Brackel & Puntillo 2016; **CAM**: B 2021; **MOL**: B 2020; **PUG**: B 2011a; **SAR**: Brackel & Berger 2019; **SIC**: B 2008a,b, Brackel & Puntillo 2023; **TOS**: B 2025.

Abrothallus teloschistis* Brackel, Pérez-Ortega & Suija
Herzogia 28(1): 219 (2015)
Hosts in Italy: *Seirophora villosa** (thallus, rarely apothecia).
TOS: B 2015a*, B 2025.
Note: The specimen from Toscana represents the type of the species, its description is given in B 2015a.

***Abrothallus tulasnei* M.S Cole & D. Hawksw.**
Mycotaxon 77: 310 (2001)
Hosts in Italy: *Xanthoparmelia verruculifera* (thallus).
SAR: Brackel & Berger 2019.

***Abrothallus usneae* Rabenh.**
Flecht. Eur. 20: № 551 (1861)
Hosts in Italy: *Usnea barbata*, *U. rigida* agg. (thallus).
PIE: Baglietto & Carestia 1880: 351; **SAR**: Jatta 1909–1911: 767; **VEN**: Jatta 1909–1911: 767, B 2013b.

***Acarospora* A. Massal.**
Selected literature: Knudsen & al. 2021.

***Acarospora subfuscescens* (Nyl.) H. Magn.**
Rabenhorst's Kryptogamen-Flora 9 (Abt. 5.1): 136 (1935)
Syn.: *Polysporina subfuscescens* (Nyl.) K. Knudsen & Kocourk.
Hosts in Italy: *Acarospora* sp.
FVG: Castello 2002, Martellos & Castello 2004; **LAZ**: Nimis & al. 1987, Nimis 1988; **LIG**: Nimis 2026; **SAR**: Nimis & Poelt 1987, Kantvilas 1998, Nöske 2000, Rizzi & al. 2011; **TAA**: Lang 2009; **TOS**: Nimis & al. 1990; **VAO**: Favero-Longo & al. 2006, Isocrono & al. 2008, Favero-Longo & Piervittori 2009.
Note: With some uncertainty; here are listed, according to Nimis 2016, all lichenicolous specimens of "*Sarcogyne lapponica*".

***Acolium* (Ach.) Gray**

Selected Literature: Tibell 1999.

***Acolium marcianum* (B. de Lesd.) M. Prieto & Wedin**

Fungal Diversity 82: 233 (2016)

Bas.: *Cyphelium marcianum* de Lesd.

Hosts in Italy: *Pertusaria pseudocorallina*, *Pertusaria* sp. (thallus).

LIG: Puntillo & Puntillo 2009; **SAR**: Puntillo & Puntillo 2009; **TOS**: Puntillo & Puntillo 2009, Loppi & al. 1997c, Tretiach & al. 2008.

***Acolium sessile* (Pers.) Arnold**

Flora 68: 49 (1885)

Syn.: *Acolium stigonellum* sensu Mudd., non (Ach) Gray, *Cyphelium sessile* (Pers.) Trevis.

Hosts in Italy: *Pertusaria coccodes*, *P. pertusa* (thallus).

ABR: Corona & al. 2016; **CAL**: Puntillo 1996, Puntillo & Puntillo 2009; **EMI**: Puntillo & Puntillo 2009, Fariselli & al. 2020; **LIG**: Brunialti & al. 2001; **LOM**: Puntillo & Puntillo 2009; **MOL**: B 2020; **PUG**: Thüs & Licht 2006; **TOS**: Anzi 1862: 161, Baglietto 1871: 255, Puntillo & Puntillo 2009; **UMB**: Ravera 2000, Ravera & al. 2006.

***Acremonium* Link**

Selected Literature: Gams 1971, Hawksworth 1979, Lowen 1995, Brackel & al. 2012, Diederich & al. 2024g.

***Acremonium antarcticum* (Speg.) D. Hawksw. agg.**

Bull. Brit. Mus. (Nat. Hist.), Bot. 6 (3): 193 (1979)

Hosts in Italy: *Parmelia saxatilis* (thallus).

TOS: B 2025.

Note: The type of the species was described on *Gondwania regalis* (see Hawksworth 1979), so all specimens on genera other than *Caloplaca* s. lat. should be attributed to the aggregate.

Acremonium pertusariae* Brackel & Etayo

Mycosphere 3: 855 (2012)

Hosts in Italy: *Lepra albescens*, *Pertusaria pertusa**, *Pertusaria* sp. (thallus).

BAS: Brackel & al. 2012*; **CAL**: Brackel & Puntillo 2016; **LAZ**: B 2015a; **TOS**: B 2015a, 2025.

Note: The specimen from Basilicata represents the type of the species, its description is given in Brackel & al. 2012.

***Acremonium spegazzinii* D. Hawksw.**

Bull. Br. Mus. nat. Hist. (Bot.): 6: 195 (1979)

Hosts in Italy: *Scytinium lichenoides* (thallus).

TOS: B 2015a.

***Adelococcus* Theiss. & Syd.**

Selected Literature: Matzer & Hafellner 1990.

***Adelococcus alpestris* (Zopf) Theiss. & Sydow**

Ann. Mycol. 16 (1-2): 31 (1918)

Bas.: *Rosellinia alpestris* Zopf, *Muellerella alpestris* (Zopf) Zopf ex Arnold

Hosts in Italy: *Acarospora glaucocarpa, A.* cf. *macrospora** (thallus).

TAA: Arnold 1896a: 119, Zopf 1896: 314, Hafellner 1985a, Matzer & Hafellner 1990: 37.

Adelococcus interlatens* (Arnold) Matzer & Hafellner

Biblioth. Lichenol. 37: 41 (1990)

Bas.: *Verrucaria interlatens* Arnold [Verh. Kaiserl.-Königl. zool.-bot. Ges. Wien 29: 364 (1879)]

Hosts in Italy: *Sarcogyne pruinosa** (thallus).

EMI: B 2025; **TAA**: Arnold 1879a*: 364 (without host), Matzer & Hafellner 1990: 44 (Arnold's find near Paneveggio), BSM 2006–2025[1)].

[1)] Dolomitsteine am Berg Mughoni oberhalb Vigo im Fassatal (Vigo di Fassa), auf *Sarcogyne pruinosa*, 08.1878, F. Arnold (M-0040640); Dolomit oberhalb der Alpe Vineghie bei Paneveggio, auf *S. regularis*, 08.1884, F. Arnold (M-0040641); Dolomitgerölle oberhalb der Langkofelhütte, am Langkofel, oberhalb St. Ulrich im Grödnertal, 08.1898, F. Arnold (M-0040642).

***Ampullifera* Deight.**

Selected Literature: Diederich & Hawksworth 2024.

***Ampullifera foliicola* Deight.**

Mycol. Pap. 78: 36 (1960)

Hosts in Italy: *Byssoloma subdiscordans* (thallus).

CAL: Puntillo 2000, Puntillo & al. 2000.

***Arthonia* Ach.**

Selected Literature: Coppins 1989, Grube & al. 1995b, Brackel & al. 2024a.

Note: See also the slightly lichenised lichenicolous species in the next chapter. The specificity of many *Arthonia* species, for instance those on the apothecia of *Lecanora* s. l., is not yet clear and needs further investigations. All records especially from the older literature have to be seen under these restrictions. I retain from using the genus "*Bryostigma*" for some of the here listed species, as some of the recombinations seem premature; nevertheless we note the alternative names under the synonyms.

***Arthonia almquistii* Vain.**

Meddeland. Soc. Fauna Fl. Fenn. 10: 209 (1883)

Hosts in Italy: *Trapelia coarctata* (thallus).

TOS: B 2015a.

Arthonia apotheciorum* (A. Massal.) Almq.

Kongl. Svenska Vetensk. Acad. Handl. 17 (6): 58 (1880)

Bas.: *Sphaeria apotheciorum* A. Massal. [Ricerche sull'autonomia dei licheni crostosi: 26 (1852)]; Syn.: *Phacopsis clemens* Tul. p.p., *Arthonia clemens* (Tul.) Th. Fr. p.p., *Conida clemens* (Tul). A. Massal. p.p.

Hosts in Italy: *Polyozosia albescens**, *P. pruinosa* (apothecia).

Italy (without site): Jatta 1909–1911: 752: "In apotheciis *Lecanorae galactinae* Ach. [= *L. albescens*] parasitica totam per Italiam". **CAL**: Brackel & Puntillo 2023; **SIC**: Nimis & al. 1994 (as *A. clemens* on *Lecanora albescens*); **VEN**: Massalongo 1852*: 26.

Note: According to Diederich & al. 2025 the species is restricted to species of *Polyozosia*. It is not yet clear, if *A. subvarians* is conspecific to *A. apotheciorum* or if it is a distinct species. I prefer to keep them separate, pending further investigation.

***Arthonia biatoricola* Ihlen & Owe-Larss.**

Symb. Bot. Ups. 34/1: 107 (2004)

Syn.: *Bryostigma biatoricola* (Ihlen & Owe-Larss.) S.Y. Kondr. & Hur

Hosts in Italy: *Biatora chrysantha*.

TAA: UPS[1)].

[1)] Trento Prov.; Stelvio National Park, Val de la Mare, Bosco di Celvestré 400 m SE of Malga Prabon, mixed old coniferous forest (*Pinus cembra*, *Larix decidua*, *Picea abies*) S of the road and the stream where the road crosses the small stream, on *Lonicera* sp., matrix: *Biatora chrysantha*, 27.07.2006, G. Thor (UPS-L-166791).

***Arthonia caerulescens* (Almq.) R. Sant.**

Flora 64: 324 (1881)

Hosts in Italy: *Straminella varia** (apothecia).

BAS: Brackel & Puntillo 2023; **CAL**: Brackel & Puntillo 2023; **CAM**: Jatta 1889: 190, 1892b: 210 (as *A. glaucomaria* on *Lecanora varia*); **TAA**: BSM 2006–2025[1)].

[1)] Südtirol, Ampezzaner Alpen, im Val Grande, Schluderbach. an *Pinus cembra*, auf *Lecanora varia*, 08.1874, F. Arnold (M-0040913).

***Arthonia clemens* (Tul.) Th. Fr. agg.**

Kongl. Svenska Vetensk. Acad. Handl. ser. 2, 7 (2): 46 (1867)

Bas.: *Phacopsis clemens* Tul. [Ann. Sci. Nat., Bot. sér. 3, 17: 124 (1852)].

Hosts in Italy: *Lecanora* spp., *Rhizoplaca chrysoleuca* (apothecia).

BAS[1]; **CAL**[1]; **LOM**[1]; **TOS**[1]; **VEN**[1].

[1]Jatta 1909–1911: 751 (on *Rhizoplaca chrysoleuca* and *Protoparmeliopsis muralis*, so under inclusion of *A. subvarians*, *A. protoparmeliopseos* and others).

Note: In the older literature *A. clemens* is used in a wider sense, comprising also *A. apotheciorum* (A. Massal.) Almq. (and *A. galactinaria* Leight. as well as *A. subvarians* Nyl., which may be synonyms of *A. apotheciorum*).

***Arthonia clemens* (Tul.) Th. Fr. s. str.**

Kongl. Svenska Vetensk. Acad. Handl. ser. 2, 7 (2): 46 (1867)

Hosts in Italy: *Rhizoplaca chrysoleuca** (apothecia).

Italy (without site): Jatta 1909–1911: 751; **LOM**: Fleischhacker & al. 2016; **PIE**: Isocrono & al. 2004; **TAA**: Hafellner 1995b, Nascimbene & al. 2004.

Note: Jatta (1909–1911) reports *A. clemens* from BAS, CAL, LOM, TOS, VEN on the hosts *Lecanora chrysoleuca* and *L. saxicola*, the latter today is *Protoparmeliopsis muralis*. On this species parasitises *A. protoparmeliopseos* (Etayo & Diederich 2009). So, Jatta reports it for Italy, but we do not know from which regions.

***Arthonia coronata* Etayo**

Bull. Soc. linn. Provence 47: 95 (1996)

Hosts in Italy: *Flavoparmelia caperata** (thallus, mainly soralia).

TOS: Etayo 2002b, Svensson & Westberg 2010, B 2015a.

***Arthonia destruens* Rehm**

Lich. Eur. Exs. № 816 (1868)

Hosts in Italy: *Physcia leptalea* (thallus).

ABR: B 2015a: **MAR**: B 2015a: **SIC**: B 2008b.

***Arthonia digitatae* Hafellner**

Linzer Biol. Beitr. 31 (1): 508 (1999)

Hosts in Italy: *Cladonia polydactyla* (squamules).

TOS: B 2015a.

***Arthonia diploiciae* Calatayud & Diederich**

Mycotaxon 55: 366 (1995)

Hosts in Italy: *Diploicia canescens** (thallus).

CAM: Puntillo & Brackel 2017; **SAR**: Nimis & Poelt 1987 (as *Arthonia* sp. on *Diploicia canescens*), Hafellner 1995b, Rizzi & al. 2011; **TOS**: B 2025.

Arthonia donoraticensis* Brackel

Borziana 6: 13 (2025)

Hosts in Italy: *Flavoparmelia soredians** (thallus).

TOS: B 2025*.

***Arthonia epiphyscia* Nyl.**

Flora 58: 361 (1875)

Hosts in Italy: *Hyperphyscia adglutinata*, *Physcia aipolia*, *P. leptalea*, *P. tenella, Physcia* sp. (thallus).

ABR: B 2015a; **CAL**: Brackel & Puntillo 2016; **CAM**: B 2021; **SAR**: Brackel & Berger 2019; **TAA**: Ravera & al. 2023b; **TOS**: Tretiach & al. 2008.

Note: A short description of the specimen on *Hyperphyscia adglutinata* is given in B 2021.

***Arthonia epipolytropa* Hafellner & Grube**

Lichenologist 55: 242 (2023)

Hosts in Italy: *Lecanora polytropa* agg.* (apothecia).

PIE: Hafellner & Grube 2019; **LOM**: new record below; **TAA**: Hafellner & Grube 2019.

New record: **LOM**: Prov. di Sondrio, between S. Giuseppe and Carotte in the Valmalenco, open soil with gneiss grus and spruces, on *Lecanora polytropa*, 1650 m, 46°19'04.7''N, 09°48'43.2''E, 29.10.2007 (herb. Brackel 6196). The specimen was reported in B 2013b as *A. subvarians*.

Note: The species should not be confused with *A. subclemens*, also growing on the apothecia of *L. polytropa* (Hafellner & Grube 2019).

***Arthonia excentrica* Th. Fr.**

Kongl. Svenska Vetensk. Acad. Handl. ser. 2, 7 (2): 46 (1867)

Syn.: *Bryostigma excentricum* (Th. Fr.) Etayo & Pino-Bodas

Hosts in Italy: *Lepraria* sp. (thallus).

EMI: Tretiach & al. 2008.

***Arthonia insitiva* (Flot.) Clauzade, Diederich & Cl. Roux**

Bull. Soc. Linn. Provence 1: 29 (1989)

Syn: *Celidiopsis insitiva* (Flot.) A. Massal.

Hosts in Italy: *Icmadophila ericetorum* (thallus).

PIE: Baglietto & Carestia 1880: 352 ("Sul tallo d'*Icmadophila aeruginosa*"); **TAA**: Clauzade & al. 1989.

Note: The host of the type is *Lecanora subfusca* s. lat., so there remain doubts if the specimens on *Icmadophila* belong to the same species.

***Arthonia intexta* Almq.**

Kongl. Svenska Vetensk. Acad. Handl. 17 (6): 60 (1880)

Syn.: *Cercidospora trigemmis* (Stiz.) Arnold.

Hosts in Italy: *Lecidella carpathica*, *L. elaeochroma*, *L. patavina* (older records as *L. endolithea*), *L. stigmatea**, *Lecidella* spp. (apothecia: hymenium).

ABR: Nimis & Tretiach 1999; **LOM**: Hertel 1969b; **SAR**: Nimis & Poelt 1987; **SIC**: B 2008a; **TAA**: Arnold 1887a: 136, 148 (as *Cercidospora trigemmis* Stizenb. on *Lecidea enteroleuca atrosanguinea*?, *Cercidospora* sp. on *Lecidea parasema*), Hertel 1969b, BSM 2006–2025[1)]; **TOS**: Benesperi & al. 2007; **VEN**: Hertel 1969b.

[1)]Auf der Schneid. Südabhang der Latemar ober Predazzo Tirol, auf *Lecidella endolithea*, 09.1883, F. Arnold (M-0040821). – Castelazzo, Südtirol, auf *Lecidella endolithea*, 08.1880, F. Arnold (M-0040822). – Val Cismon. Prov. Trento: Almwiesen mit eingestreuten Kalkblöcken am Nordhang des Monte Pavione, oberhalb der Alpe Agnerola, ca. 1400 m, on *Lecidella stigmatea*, 08.1968, H. Wunder (M-0040828).

Note: An extremely reduced fungus consisting only of the asci and some paraphyses, growing in the hymenium of mainly saxicolous *Lecidella* species. Arnold (1887a) reports it as *Cercidospora* parasitic in the hymenium of "*Lecidea parasema*" on the bark of *Salix retusa*, so most probably *Lecidella elaeochroma* ("asci oblongi, intra paraphyses Lecid. apotheciorum dispositi, sporae incol., 3 septat., 0.012–15 mm, lg., 0.003 mm. lat., 8 in asco."). It is not yet clear if *A. intexta* is a complex of several species, as the specimens on different hosts are somehow different in the ascospore measurements and septation (see Hertel 1969b).

***Arthonia lecanorina* (Almq.) R. Sant.**

Lichen-forming and lichenicolous fungi of Fennoscandia: 24 (2004)

Bas.: *Arthonia vagans* var. *lecanorina* Almq.

Hosts in Italy: *Lecanora albella** (apothecia).

LOM: Jatta 1909–1911: 752 [on *Lecanora* (*dispersa* et) *albella*, apothecia].

Arthonia lepidophila* (Anzi) Clauzade, Diederich & Cl. Roux ined.

Bull. Soc. Linn. Provence 1: 30 (1989)

Bas.: *Abrothallus lepidophilus* Anzi

Hosts in Italy: *Cladonia pyxidata**, *Cladonia* sp. (squamules).

LOM: Anzi 1868a: 177*, Jatta 1909–1911: 766, Saccardo 1892: 76.

Arthonia molendoi* (Heufl. ex Frauenf.) R. Sant.

Thunbergia 3: 2 (1986)

Bas.: *Tichothecium molendoi* Heufl. ex Frauenf.; Syn.: *Bryostigma molendoi* (Heufl. ex Frauenf.) S. Y. Kondr. & Hur

Hosts in Italy: ¿*Caloplaca cerina*?, *Calogaya biatorina*, *C. pusilla**, *C. saxicola*, *Rusavskia elegans* (thallus).

ABR: Nimis & Tretiach 1999; **LIG**: Ravera & al. 2022a; **LOM**: Ravera & al. 2024b; **PIE**: Ravera & al. 2024b; **TAA**: Arnold 1864b*: 461; **VAO**: Hafellner 2021a. – dubious (on *Caloplaca cerina*): **BAS**: B 2011a.

Note: All older records (before 2016) on *Xanthoria parietina* belong to *Arthonia parietinaria*.

***Arthonia muscigena* Th. Fr.**

Bot. Not. 1865: 182 (1865)

Syn.: *Bryostigma muscigenum* (Th. Fr.) Frisch & G. Thor

Hosts in Italy: *Fellhanera bouteillei* (thallus).

CAL: Puntillo & Vězda 1994, Puntillo 1995; **TOS**: Puntillo & Ottonello 1997.

Note: In Puntillo & Vězda 1994 and Puntillo 1995 the species was reported as *A. microsticta* Vain. It is not yet clear, if *A. microsticta* and *A. muscigena* are synonymous or different species. For the whole complex and the story of the name of *A. muscigena* see B 2025. The new name *Bryostigma muscigenum* is not adopted here until these issues are resolved.

***Arthonia parietinaria* Hafellner & A. Fleischhacker**

Fungal Biology 120: 1343 (2016)

Hosts in Italy: *Xanthoria parietina** (thallus and more rarely apothecia).

ABR: B 2015a; **BAS**: B 2011a; **CAL**: Brackel & Puntillo 2016; **CAM**: B 2021; **FVG**: Ravera & al. 2024; **LAZ**: B 2015a; **MAR**: B 2015a, 2025; **MOL**: B 2020; **SAR**: Fleischhacker & al. 2016, Brackel & Berger 2019; **SIC**: B 2008a; **TAA**: Ravera & al. 2024; **TOS**: B 2008c, 2025; **UMB**: B 2015a.

Note: Records before 2016 as *A. molendoi* on *Xanthoria parietina*.

***Arthonia peltigerina* (Almq.) H. Olivier**
Bull. Acad. Int. Géogr. Bot. 27: 213 (1917)
Hosts in Italy: *Solorina crocea** (thallus).
FVG: Hafellner 1999a.

***Arthonia phaeophysciae* Grube & Matzer**
Proceedings of the Third Symposium of the International Association for Lichenology: 10 (1997)
Hosts in Italy: *Phaeophyscia orbicularis** (thallus).
EMI: B 2025; **FVG**: B 2013b; **TAA**: Ravera & al. 2023b.

***Arthonia protoparmeliae* Etayo**
Guineana 16: 41 (2010)
Hosts in Italy: *Protoparmelia badia** (thallus and apothecia).
SIC: Brackel & Puntillo 2023.

***Arthonia protoparmeliopseos* Etayo & Diederich**
Bull. Soc. Nat. luxemb. 110: 93 (2009)
Hosts in Italy: *Protoparmeliopsis muralis** (apothecia).
Jatta (1909–1911) reports *A. clemens* from BAS, CAL, LOM, TOS, VEN on the hosts *Lecanora chrysoleuca* Ach. and *L. saxicola* Poll., the latter today is *Protoparmeliopsis muralis*. On this species parasitises *A. protoparmeliopseos* Etayo & Diederich (Etayo & Diederich 2009) and no other known *Arthonia* species. So, Jatta reports the recently described species for Italy, without detailing the region.
Possibly also these records belong to the species: **PUG** (TSB 23181 as *A. clemens*); **VEN**: Massalongo 1852: 26 (2-sp, as *Sphaeria apotheciorum* on *Lecanora muralis*); **PIE**: Baglietto & Carestia 1880: 352 (as *Conida subvarians* f. *clemens* on *Lecanora muralis*); **PUG**: Jatta 1880: 241, 1882: 139 (as *Conida clemens* on *Placodium saxicola* = *Protoparmeliopsis muralis*); **TOS**: Nimis & al. 1990 (as *Arthonia clemens* on *Lecanora muralis*).

***Arthonia punctella* Nyl. in Carrol**
Nat. Hist. Rev. 6: 533 (1859)
Syn.: *Conida punctella* (Nyl.) Arnold
Hosts in Italy: *Diplotomma alboatrum**, *D. chlorophaeum* (thallus).
TAA: Arnold 1897a: 217, 220, BSM 2006–2025[1)].
[1)] Tirol, Paneveggio, Campiler und Seisser Schichten der Höhe ober dem Rollepaß, auf *Diplotomma epipolium*, 08.1884 F. Arnold (M-0040865).

Arthonia rangiformicola* Brackel & Etayo
Herzogia 28: 224 (2015)
Hosts in Italy: *Cladonia rangiformis** (podetia).
ABR: B 2015a*; **MAR**: B 2015a; **SAR**: Brackel & Berger 2019.

***Arthonia squamarinae* Etayo**
Cyptog. Mycol. 29: 69 (2008)
Hosts in Italy: *Squamarina gypsacea*, *S. lentigera** (apothecia).
SAR: Brackel & Berger 2019; **TOS**: B 2015a.

***Arthonia stereocaulina* (Ohlert) R. Sant.**
Lichens and Lichenicolous Fungi of Sweden and Norway: 18 (1993)
Hosts in Italy: *Stereocaulon alpinum* (thallus).
TAA: Bilovitz & al. 2014b.

Arthonia subclemens* Hafellner, Grube & Muggia
Lichenologist 55: 245 (2023).
Hosts in Italy: *Lecanora polytropa* s. lat.* (apothecia).
TAA: Hafellner & Grube 2019*.

***Arthonia subfuscicola* (Linds.) Triebel**
Mycotaxon 42: 268 (1991)
Hosts in Italy: *Glaucomaria carpinea*, *Lecanora chlarotera*, *L. horiza, L. subfusca* agg.* (thallus and apothecia).
ABR: B 2015a; **LAZ**: B 2015a; **LOM**[?]: Anzi 1860: 117 (as *Celidium sordidum* on *Lecanora subfusca*); **PIE**: Baglietto & Carestia 1880: 351; **PUG**: B 2011; **SAR**: Brackel & Berger 2019; **SIC**: B 2008b, 2015a.

***Arthonia subvarians* Nyl.**
Flora 51: 345 (1868)
Syn.: *Conida subvarians* (Nyl.) Arnold, *Arthonia galactinaria* Leight.
Hosts in Italy: *Polyozosia caesioalba*, *P. dispersa* agg. (apothecia).
ABR: Nimis & Tretiach 1999 (as *A. clemens* on *Lecanora dispersa*), Gheza & al. 2021 (referring to the aforementioned, as *A. galactinaria*); **LOM**: Jatta 1909–1911: 752 [on *Lecanora dispersa* (et *albella*), apothecia]; **PUG**: Nimis & Tretiach 1999 (as *A. clemens* on *L. dispersa*); **SIC**: van den Boom 1992, B 2008a,b; **TAA**: Arnold 1876c: 411 (on *Lecanora varia*), 414 (on *Lecanora varia*), 1880b: 106 (on „*Lecanora polytr*. illus.“), 1879a: 368, Kernstock 1890: 335 („supra *Lecanorae polytropae* alpig. ecrustaceae“), 1891: 737 (on *Lecanora subfusca*), 1895: 203 (on *Lecanora polytropa*), BSM 2006–2025[1)], Lettau 1958: 140 (as *Conida clemens* on *L. dispersa*); **TOS**: B 2015a.
[1)] Porphyrberg rechts ober Giuribrutt. Paneveggio in Südtirol, auf *Conida subvarians*, 08.1880, F. Arnold (M-0040911). – Diorit bei alle Selle. Monzoni bei Vigo. Fassa. Tirol, 08.1878, F. Arnold (M-0040912).
Note: See note under *A. apotheciorum*. All available specimens should be checked.

***Arthonia varians* (Davies) Nyl.**
Not. Sällsk. Fauna Fl. Fenn. Förh. 5: 260 (1861)
Syn.: *Arthonia glaucomaria* Nyl., *Celidium grumosum* Körb., *Celidium varians* (Davies) Arnold, *Celidium sordidum* (A. Massal.) Anzi

Hosts in Italy: *Glaucomaria bicincta*, *G. rupicola* subsp. *sulphurata*, *G. rupicola* agg.* (thallus).

BAS: Nimis & Tretiach 1999; **CAL**: Puntillo 1996; **EMI**: Tretiach & al. 2008; **FVG**: Tretiach 1993, Tretiach & Hafellner 2000; **LAZ**: Nimis & al. 1987: 18; **LOM**: Anzi 1860: 117 (as *Celidium sordidum*), 1864: 28, Jatta 1909–1911: 760, BSM 2006–2015[1)]; **MOL**: Nimis & Tretiach 1999; **PUG**: Jatta 1909–11: 760; **SAR**: Jatta 1909–1911: 760, Nimis & Poelt 1987, BSM 2006–2015[2)], Rizzi & al. 2011, Brackel & Berger 2019; **SIC**: Grillo & Caniglia 1989: 25, BSM 2006–2015[3)], B 2008a,b; **TOS**: Baglietto 1871: 273, Jatta 1909–11: 760, Nimis & al. 1990; **TAA**: Arnold 1887a: 103, 126, 1872b: 301, 1897a: 220, Kernstock 1891: 737, 1892b: 349, 1893: 309, 1895: 203, 219, Pfaff 1933: 55, Lettau 1958: 139, BSM 2006–2015[4)]; **VEN**: Massalongo 1952: 4, Hafellner & Sancho 1990.

[1)] In disco apotheciorum *Zeora sordida* in montibus prov. Sondriensis, on *Lecanora rupicola*, Anzi, Lich. Exs. Minus Rari Ital. Super. (M-0040766, M-0040767). [2)] Insel Sardinien (Sardegna): Hochfläche der Giara di Gesturi, ca. 35 km E des Golfes von Oristano, auf *Lecanora sulphurata*, 500–600 m, 15.04.1971, H. Wunder (M-0040763, M-0040764). [3)]Flora Sicula. Prov. Messina: Monti Nebrodi Südlicher Ausläufer des M. Trefinatre, SW - Hänge oberhalb Borgo Pietrapizzuta bzw. Borgo Morfia 980-1100 m, in *Lecanora rupicola*, auf niedrigen Felsbänken, 01.05.1978, H. Hertel (M-0040762). [4)]auf einem Porphyrblocke am Abhange unterhalb der Straße vor dem Rollepasse bei Paneveggio in Südtirol, auf *Lecanora rupicola*, 04.08.1885, F. Arnold (M-0040771).

Note: Some of the older records are dubious, as *A. glaucomaria* formerly was used in a wider sense.

***Arthonia xanthoparmeliarum* Etayo**

Biblioth. Lichenol. 98: 49 (2008)

Hosts in Italy: *Xanthoparmelia verruculifera* (thallus).

SIC: Brackel & Puntillo 2023.

***Arthophacopsis* Hafellner**

Selected literature: Hafellner 1998.

***Arthophacopsis parmeliarum* Hafellner**

Cryptog. Bryol. Lichénol. 19 (2-3): 159 (1998)

Hosts in Italy: *Parmelia omphalodes*, *P. saxatilis*, *P. sulcata** (thallus).

FVG: Hafellner 1998; **SAR**: Brackel & Berger 2019; **TAA**: Hafellner 2021a.

***Arthrorhaphis* Th. Fr.**

Selected literature: Obermayer 1994, Frisch & al. 2022.

Note: See also the slightly lichenised lichenicolous species in the next chapter.

***Arthrorhaphis aeruginosa* R. Sant. & Tønsberg**

Lichenologist 26 (3): 295 (1994)

Hosts in Italy: *Cladonia digitata*, *C. foliacea*, *C. furcata*, *C. monomorpha*, *C. pyxidata*, *C. pyxidata* f. *pocillum*, *C. rangiformis*, *C. subcervicornis*, *Cladonia* sp. (basal squamules and rarely podetia).

ABR: B 2015a; **CAL**: Brackel & Puntillo 2016; **CAM**: Puntillo & Brackel 2017, **CAM**: B 2021; **LOM**: B 2010d; **PIE**: Motiejūnaitė & Grochowski 2014; **SAR**: Brackel & Berger 2019; **TOS**: B 2015a; **TAA**: B 2013b; **UMB**: B 2015a.

Note: All Italian finds in the sterile state without ascomata, detectable due to the aeruginose coloration of the infected parts of the host thallus.

***Arthrorhaphis grisea* Th. Fr.**

Lich. Arctoi: 304 (1860)

Hosts in Italy: *Baeomyces* spp. (thallus).

TAA: Nimis 1993.

Note: In the past, the species was considered, like several other species of the genus, a juvenile parasite on *Baeomyces* spp., later autonomous (according to Santesson & al. 2004).

***Asterophoma* D. Hawksw.**

Selected literature: Hawksworth 1981a.

***Asterophoma mazaediicola* D. Hawksw.**

Bull. Brit. Mus. (Nat. Hist.), Bot. 9: 8 (1981)

Hosts in Italy: *Calicium trabinellum** (ascomata: mazaedium).

TAA: Hawksworth 1981a.

***Bachmanniomyces* D. Hawksw.**

Selected literature: Hawksworth 1981a, Rambold & Triebel 1990.

Bachmanniomyces punctum* (A. Massal.) Diederich & Pino-Bodas

The Bryologist 121: 393 (2018)

Bas.: *Nesolechia punctum* A. Massal.; Syn.: *Phaeopyxis punctum* (A. Massal.) Rambold, Triebel & Coppins, *Bachmanniomyces uncialicola* (Zopf) D. Hawksw., *Lecidea puncta* (A. Massal.) Jatta.

Hosts in Italy: *Cladonia coccifera*, *C. coniocraea*, *C. digitata*, *C. polydactyla*, *Cladonia* sp.* (squamules).

Italy (without site): Massalongo "Lich. Ital. Exs. 153", 1856*: 14, Rambold & Triebel 1990. **LOM**: B 2010d; **TAA**: Arnold 1887a: 109, 143, Kernstock 1896: 302, B 2013b; **VEN**: Beltramini 1858, Jatta 1909–11: 623.

Note: Hawksworth (1990) reports *Bachmanniomyces uncialicola* (Zopf) D. Hawksw. for Italy but he refers to a find of Arnold from Oberfranken (Bavaria/Germany).

***Bachmanniomyces varius* (Coppins, Rambold & Triebel) Diederich & Pino-Bodas**

Bryologist 121: 393 (2018)

Bas.: *Phaeopyxis varia* Coppins, Rambold & Triebel.

Hosts in Italy: *Trapeliopsis gelatinosa** (thallus).

FVG: Hafellner & Obermayer 2007: 54.

***Bacidia* De Not.**

Selected literature: Hawksworth 1983, Keissler 1930.

***Bacidia killiasii* (Hepp) D. Hawksw.**
Lichenologist 15 (1): 22 (1983)
Bas.: *Biatora killiasii* Hepp.; Syn.: *Bilimbia sabuletorum* f. *killiasii* Hepp
Hosts in Italy: *Peltigera aphthosa* (thallus).
TAA: Kernstock 1892a: 325, Keissler 1930.

***Bellemerella* Nav.-Ros. & Cl. Roux**
Selected literature: Navarro-Rosinés & Roux 1997b, Pérez-Ortega & Spribille 2007.

***Bellemerella trapeliae* Nav.-Ros. & Cl. Roux**
Mycotaxon 61: 443 (1997)
Hosts in Italy: *Trapelia glebulosa* (thallus).
TOS: B 2015a.

***Biatoropsis* Räsänen**
Selected literature: Diederich & al. 2022e.

***Biatoropsis hafellneri* Millanes, Diederich, M. Westb. & Wedin**
Herzogia 29: 341 (2016)
Hosts in Italy: *Usnea cornuta* (thallus).
SAR: Ravera & al. 2024a.

***Biatoropsis usnearum* Räsänen agg.**
Ann. bot. Soc. Zool.-bot. fenn. 'Vanamo' 5(9): 8 (1934)
Hosts in Italy: *Usnea articulata*, *U. dasypoga*, *Usnea rubicunda, Usnea* sp. (thallus).
CAL: Puntillo 2011, Brackel & Puntillo 2016; **LAZ**: B 2015a; **TOS**: B 2015a; **TAA**: Diederich & Christiansen 1994, Diederich 1996, Santesson 1994b, BSM 2006–2025[1)], B 2013b.
[1)] Bolzano, 54 km WSW of Merano, NP Stilfser Joch, road Prad - Stilfserjoch, SW of Tarfoi. 46°30'N, 11°25'E. c. 1850 m. On *Picea* in a *Picea* wood, on *Usnea* sp., 14.08.1990, P. van den Boom (M-0040950).
Note: I treat here *Biatoropsis usnearum* as an aggregate, as it was split up in several species by Diederich & al. (2022b) and it is impossible to assign the older records to one of the new species without restudying them.

***Briancoppinsia* Diederich, Ertz, Lawrey & van den Boom**
Selected literature: Diederich & al. 2011b.

***Briancoppinsia cytospora* (Vouaux) Diederich, Ertz, Lawrey & van den Boom**
Fungal Diversity 52: 8 (2011)
Syn.: *Phoma cytospora* (Vouaux) D.Hawksw.
Hosts in Italy: *Flavoparmelia caperata**, *Hypogymnia physodes*, *H. tubulosa*, *Glaucomaria carpinea*, *Melanohalea elegantula*, *Parmelia omphalodes*, *P. sulcata*, *Phaeophyscia orbicularis*, *Pertusaria pertusa*, *Pleurosticta acetabulum, Pseudevernia furfuracea* (thallus and soralia).

BAS: B 2011a; **CAL**: Brackel & Puntillo 2016; **LOM**: B 2010d; **MOL**: B 2020; **PIE**: Motiejūnaitė & Grochowski 2014; **SAR**: Nimis & Poelt 1987, Brackel & Berger 2019; **TOS**: B 2015a.

***Buelliella* Fink**
Selected literature: Ertz & Diederich 2015.

***Buelliella lecanorae* Suija & Alstrup**
Lichenologist 36 (3-4): 203 (2004)
Hosts in Italy: *Lecanora chlarotera** (thallus).
PUG: Brackel 2011a.

***Buelliella minimula* (Tuck.) Fink ex Hafellner**
The lichen flora of the United States: 372 (1935)
Hosts in Italy: *Pertusaria flavida*, *P. pertusa*, *Pertusaria* sp. (thallus).
CAM: Puntillo & Brackel 2017; **MAR**: B 2015a; **SIC**: Brackel & Puntillo 2023.
Note: A discussion on ascospore measurements is given in B 2015a.

***Buelliella physciicola* Poelt & Hafellner**
Beih. Nova Hedwigia 62: 155 (1979)
Hosts in Italy: *Phaeophyscia orbicularis* (thallus).
LIG: Hafellner 1979 (record of Sbarbaro); **CAM**: B 2021.

***Burgoa* Goid.**
Selected literature: Diederich & al. 2022c.

***Burgoa angulosa* Diederich, Lawrey & Etayo**
Mycol. Progr. 6 (2): 66 (2007)
Hosts in Italy: *Physcia aipolia**, *Lecanora* sp. (apothecia and thallus).
CAL: Brackel & Puntillo 2016.

***Calongeomyces* (D. Hawksw. & Etayo) D. Hawksw. & Etayo**
Selected literature: Coste & Pinault 2019, Hawksworth & al. 2024a.

***Calongeomyces gibelluloides* (D. Hawksw. & Etayo) D. Hawksw. & Etayo**
Lichenologist 43: 275 (2011)
Hosts in Italy: *Flavoparmelia caperata** (thallus).
LOM: B 2013b.
Note: See note under *Roselliniella cladoniae*.

***Calycina* Nees ex Gray**
Selected literature: Diederich & al. 2024e (on *Chalara*).

***Calycina lobariae* (Etayo) Suija & Jonsson**
Lichenologist 57: 187 (2025)

Bas.: *Chalara lobariae* Etayo [Bull. Soc. Nat. luxemb. 97: 97 (1996)]
Hosts in Italy: *Lobaria pulmonaria** (thallus).
BAS: B 2011a; **CAL**: Brackel & Puntillo 2016; **TOS**: B 2015a.
In Italy only the *Chalara*-anamorph of the species was found.

***Capronia* Sacc.**
Selected literature: Halıcı & al. 2010, Hollinger & Lendemer 2021.
Note: See also a dubious species in the next chapter.

***Capronia lecanorae* Brackel ad int.**
Borziana 2: 56 (2021)
Hosts in Italy: *Lecanora horiza** (thallus).
CAM: B 2021*.
Note: An illustrated provisional description is given in B 2021.

***Capronia triseptata* (Diederich) Etayo**
Bull. Soc. linn. Provence 47: 113 (1996)
Bas.: *Muellerella triseptata* Diederich [Lejeunia n.s. 119: 10 (1986)].
Hosts in Italy: *Bacidia rubella*, *Parmelina quercina* (thallus)
PUG: Nimis & Tretiach 1999; **TOS**: B 2015a.

***Carbonea* (Hertel) Hertel**
Selected literature: Hertel 1983, Pirogov & al. 2014, Hafellner 2021b.
Note: See also the slightly lichenised species in the next chapter.

***Carbonea aggregantula* (Müll. Arg.) Diederich & Triebel**
Herzogia 9(3-4): 741 (1993)
Bas.: *Lecidea aggregantula*. Müll. Arg.
Hosts in Italy: *Lecanora alpigena, L. polytropa** (thallus).
FVG: Tretiach & Hafellner 2000, Hafellner 2021b; **PIE**: Hafellner 2021b; **TAA**: Kernstock 1895: 203, Hafellner 1996b, 2006, 2021b, BSM 2006–2011[1)].
[1)] Parasitisch auf *Lecanora polytropa* an Porphyblöcken am Abhange der Alpe vor dem Rollepass. Paneveggio in Südtirol, 19.07.1887, F. Arnold (M-0040986); am Abhang unter der Alpe vor dem Rollepasse, Paneveggio, Südtirol, auf *L. polytropa*, 08.1886, F. Arnold (M-0040991).

***Carbonea herteliana* Hafellner & Matzer**
Linzer biol. Beitr. 31: 509 (1999)
Hosts in Italy: *Rhizocarpon umbilicatum** (thallus).
VEN: Hafellner 2021b.

***Carbonea intrudens* (H. Magn.) Hafellner**
Fritschiana 52: 40 (2006)
Syn.: *Carbonea halacsyi* (J. Steiner) Hafellner & Sancho
Hosts in Italy: *Rhizocarpon geographicum**, *Rhizocarpon* sp. (yellow) (thallus).

EMI: Hafellner 2006; **FVG**: Tretiach & Hafellner 2000, ; **PIE**: Hafellner 2006, 2021b; **TAA**: Hafellner 2006, 2021b.

***Carbonea supersparsa* (Nyl.) Hertel**

Mitt. Bot. Staatssamml. München 19: 442 (1983)

Hosts in Italy: *Lecanora polytropa**, *Lecanora* sp. (thallus).

CAL: Brackel & Puntillo 2016, ITALIC-HERBARIA[1)]; **EMI**: B 2025; **FVG**: Tretiach & Hafellner 2000, Hafellner 2021b; **LAZ**: Nimis & al. 1987; **LIG**: B 2025; **PIE**: ITALIC-HERBARIA[2)]; **SAR**: Nimis & Poelt 1987; **SIC**: Grillo & Caniglia 1989, B 2008a, ITALIC-HERBARIA[3)]; **TAA**: Arnold 1887a: 103, 126, Dalla Torre & Sarnthein 1902, Keissler 1930, Lettau 1958: 146, Hafellner 2006, 2021b, BSM 2006–2025[4)], ITALIC-HERBARIA[5)], new record see below; **TOS**: Nimis & al. 1990, B 2015a.

[1)] Prov. di Reggio Calabria, Santo Stefano in Aspromonte, Aspromonte, Pietra Impiccata, acid siliceous rocks, 1989, D. Puntillo (CLU 6519). [2)] Prov. di Cuneo, Alpi Liguri Eastern slopes of Mt. Bertrand W above Upega, siliceous rocks, 2000, P. L. Nimis & M. Tretiach (TSB 33273). [3)] Prov. di Catania, Mt. Etna, start of the cable car to the crater, siliceous rocks, 1988, P. L. Nimis & J. Poelt (TSB 43781). [4)] Eisenwacke im Damers auf dem Schlern in Südtirol. 6000!, 07.1867, F. Arnold (M-0041007); Porphyrblöcke am Abhang bei der Alpe vor dem Rollepasse, Paneveggio, Tirol, auf *L. polytropa*, 08.1886, F. Arnold (M-0041009); Campiler u. Seisser Schichten der Höhe ober dem Rollepasse, Paneveggio, Tirol, 08.1884, F. Arnold (M-0041011, M-0041012). [5)] Prov. di Trento, Stelvio National Park Alta Val de la Mare - verso la Forcola, siliceous rocks, 2003, J. Nascimbene (herb. Nascimbene JN306).

New records: **TAA**: Prov. di Trento, Vette Feltrine, Val Noana, Rif. Fonteghi, "Vaticano", on schistose rock in dolomitic wall, on Lecanora sp. (thallus), 46°08'06.9''N, 11°52'40.5''E, 1153 m, 05.07.2025, leg. H. Oberhollenzer, det. W. v. Brackel (STU, Oberhollenzer 7292); the apothecia of the parasite were hyperinfected with Intralichen sp. with (0-)1(-2)-septate conidia of 4–5 × 3–5 µm, not constricted at the septa; Fleimstaler Alpen, Lagorai-Gruppe, Passo Rolle, Rastplatz an der SS 50 ca. 1, 5 km WNW der Malga Rolle, auf Porphyrit an einer sickerfeuchten Wand, auf *Lecanora* sp. (Apothecien & Thallus), 46.29996° N, 11.76350° E, 1767 m, 29.06.2025, H. Oberhollenzer (STU, Oberhollenzer 7266). – Prov. di Bolzano, Ahrntal, Stienbachtal N Niederhollenze, Blockmeer, auf freistehendem Block, auf Lecanora polytropa, 47°02'13.24''N, 12°01'14.63''E, 2025 m, , 09.08.2022, H. Oberhollenzer (STU, Oberhollenzer 5903_5b).

***Carbonea tephromelae* M. Svensson & M. Westb.**

Phytotaxa 522(3): 225 (2021)

Hosts in Italy: *Tephromela atra** (thallus).

FVG: Hafellner 2021b.

***Carbonea vitellinaria* (Nyl.) Hertel**

Mitt. Bot. Staatssamml. München 19: 442 (1983)

Bas.: *Lecidea vitellinaria* Nyl.

Hosts in Italy: *Candelariella vitellina**, *Candelariella* sp.(thallus).

ABR: Nimis & Tretiach 1999, Gheza & al. 2021; **BAS**: Nimis & Tretiach 1999; **CAL**:

Puntillo 1996, Brackel & Puntillo 2016; **CAM**: Catalano & al. 2016; **FVG**: Tretiach 1993, Tretiach & Hafellner 2000, Hafellner 2006; **LAZ**: Nimis & al. 1987; **LIG**: Brunialti & al. 1999, B 2025; **LOM**: Anzi 1860: 82, Jatta 1909–1911: 622, BSM 2006–2025[1)], De Vita & Valcuvia 2004; **PIE**: Baglietto & Carestia 1865–1867: 386 and 1880: 276, Jatta 1909–1911: 622, Isocrono & al. 2003, Hafellner 2006, 2021b, Isocrono & Piervittori 2008, Giordani & al. 2014; **SIC**: Grillo & Caniglia 1989, van den Boom 1992, Ottonello & Romano 1997, BSM 2006–2025[2)], B 2008a, Ottonello & al. 2011; **SAR**: Nimis & Poelt 1987, Nöske 2000, Rizzi & al. 2011, Giordani & al. 2013, Brackel & Berger 2019; **TAA**: Arnold 1887a: 115, 1897a: 220, Kernstock 1890: 335, 336, 350, 1895: 203, BSM 2006–2025[3)], Nascimbene 2003, 2008b, Thor & Nascimbene 2007, Hafellner 2021b; **TOS**: Nimis & al. 1990, Tretiach & al. 2008, Lastrucci & al. 2009; **UMB**: Panfili 2000, Ravera & al. 2006; **VEN**: Hafellner & Sancho 1990, Caniglia & al. 1999; **VAO**: BSM 2006–2025[4)], Piervittori & al. 1998, 2004, Piervittori & Isocrono 1999.

[1)] In tutta la regione alpina, a Riva, Allagna, Gressoney, alle falde del Monte Rosa, on *C. vitellina*, A. Carestia, Baglietto, Cesati & Notaris, Erb. Critt. Ital. Ser. I (M-0041044); In montibus, et alpibus prov. Sondriensis, on *C. vitellina*, Anzi, Lich Rar. Langob. Exs. (M-0041045). [2)] Sizilien, Prov. Catania: Ätna S-Flanke, zwischen Rifugio Sapienza und Rif. la Montagnola Lavafelsen in Schutthang ca. 2050 m, auf *C. vitellina*, 04.1978, I. & H. Hertel (M-0041037). – Ätna E-Fuß des Ätna, Lavazüge westlich der Case Tomarchio 1400 m (*Genista aetnensis*-Formation) hoher Basaltfels, auf *C. vitellina*, 03.05.1978, I. & H. Hertel (M-0041038). [3)] Tirol, Gröden, bei Wolkenstein, Augitporphyr, auf *C. vitellina*, 08.1898, F. Arnold (M-0041078). – Südtirol, Paneveggio, Porphyr der Höhe rechts ober dem Col Bricone, auf *C. vitellina*, 08.1883, F. Arnold (M-0041079). – Südtirol, Dolomiten: Geisler-Gruppe: Seceda Westkante, südlich des Gipfels. Über Hornsteinkalken der Buchensteiner Stufe (Mitteltrias), auf *C. vitellina*, 07.08.1965, H. Hertel (M-0041062). – Südtirol: Ötztaler Alpen Hoch-Schwems im obersten Schnalstal, oberhalb des Gasthofes "Kurzras" 2500 m, auf *C. vitellina*, 29.07.1970, H. Hertel (M-0041071). [4)] Alpi Pennine: Felsblöcke am SW-Fuß des Monte Cervino (Matterhorn), nördlich von Breuil/Cervinia 2150 m, auf *Candelariella*, 01.04.1972, H. Wunder (M-0041074).

***Catillaria* A. Massal.**

Selected literature: Tretiach & Hafellner 1998.

Note: See also the slightly lichenised species in the next chapter.

***Catillaria stereocaulorum* (Anzi) H. Olivier**

Bull. Acad. Int. Géogr. Bot. 15: 274 (1905)

Bas.: *Lecidea stereocaulorum* Anzi; Syn.: *Biatorina stereocaulorum* Th. Fr., *Biatorina stereocaulorum* Anzi, *Scutula stereocaulorum* (Anzi) Körber.

Hosts in Italy: *Stereocaulon alpinum**, *S. botryosum* (p. p. as *fastigiatum*), *S. condensatum*, *S. dactylophyllum* (p. p. as *coralloides*), *Stereocaulon* spp. (thallus)

LOM: Körber 1859–1865: 455, Anzi 1862: 155, Jatta 1909–1911: 566, BSM 2006–2025[1)]; **PIE**: Baglietto & Carestia 1880: 301, Jatta 1909–1911: 566, BSM 2006–2025[2)]; **TAA**: Arnold 1887a: 89, Keissler 1930: 158, BSM 2006–2025[3)].

[1)] Ad squamulas *Stereocauli alpini*, et *fastigiati*, in alpibus Bormiensibus (Calàr, Zebrù, Bráulio), on *Stereocaulon alpinum*, without date, M. Anzi (M-0044014 - Anzi Lich. Rar.

Langob. Esx. № 262). [2)] Alagna prope montem Rosa in subalpinis, ad praerupta septentrionalia montium (Uebelgethaneberg et Tagliaferro), sullo *Stereocaulon alpinum*, 1869, A. Carestia (M-0044013, M-0044015 – Carestia Erb. Critt. Ital. Ser. II № 322). [3)] Auf *St. coralloides* am Fuße der Margola bei Predazzo, 1884, H. Lojka (M-0044019).

***Cecidonia* Triebel & Rambold**

Selected literature: Triebel & Rambold 1988, Triebel 1989.

***Cecidonia umbonella* (Nyl.) Triebel & Rambold**

Nova Hedwigia 47: 284 (1988)

Hosts in Italy: *Lecidea lapicida* agg., *Lecidea* sp. (thallus).

EMI: Tretiach & al. 2008; **FVG**: Tretiach & Hafellner 2000; **SAR**: Nimis 1993; **SIC**: Grillo & Caniglia 1989; **TAA**: Hafellner & Sancho 1990, Hertel & Schuhwerk 2010.

***Cecidonia xenophana* (Körb.) Triebel & Rambold**

Nova Hedwigia 47: 291 (1988)

Hosts in Italy: *Porpidia cinereoatra*, *P. tuberculosa* (thallus).

FVG: Tretiach & Hafellner 2000; **SAR**: Brackel & Berger 2019.

***Cercidospora* Körb. emend. Hafellner**

Selected literature: Hafellner 1987, Ihlen & Wedin 2007.

Cercidospora appennina* Brackel

Borziana 6: 18 (2025)

Hosts in Italy: *Polyozosia albescens** (thallus and apothecia).

EMI: B 2025*.

Cercidospora caudata* Kernst.

Verh. Zool.-Bot. Ges. Wien 44: 212 (1895)

Hosts in Italy: *Blastenia ferruginea*, *Caloplaca aurantiaca*, *C. interna*, *Pyrenodesmia variabilis*, *Variospora aurantia*, *Xanthocarpia lactea**, *Caloplaca* s. l. sp., (apothecia).

EMI: B 2025; **PIE**: Wittmann & Türk 1989: 192; **PUG**: B 2011a; **SAR**: Nimis & Poelt 1987; **TOS**: B 2015a); **TAA**: Kernstock 1895*: 212, 1896: 302, Keissler 1930, Hafellner 1987b.

***Cercidospora cecidiiformans* Grube & Hafellner**

Herzogia 9 (3-4): 751 (1993)

Hosts in Italy: *Rhizocarpon geographicum** (thallus).

SAR: Brackel & Berger 2019.

***Cercidospora epipolytropa* (Mudd) Arnold**

Flora 57: 154 (1874)

Hosts in Italy: *Lecanora polytropa** (apothecia, rarely thallus).

CAL: Brackel & Puntillo 2016; **FVG**: Tretiach & Hafellner 2000; **LOM**: B 2013b; **SIC**: B 2008a,b; **TOS**: Hafellner 1987b, B 2015a; **TAA**: Arnold 1887a: 126, 1896a: 119,

Kernstock 1890: 322, 1891: 737, Calatayud & al. 2013.
Note: Records before 2008 include the then newly described *Cercidospora stenotropae*.

***Cercidospora lobothalliae* Nav.-Ros. & Calat.**
Lichen Flora of the Greater Sonoran Desert Region 2: 637 (2004)
Hosts in Italy: *Circinaria calcarea*, *Lobothallia radiosa** (thallus and apothecia).
LIG: B 2025; **SAR**: Brackel & Berger 2019.

***Cercidospora macrospora* (Uloth) Hafellner & Nav.-Ros.**
Lichen Flora of the Greater Sonoran Desert Region 2: 638 (2004)
Bas.: *Cercidospora ulothii* Körb.
Hosts in Italy: *Protoparmeliopsis bolcana*, *P. garovaglii*, *P. muralis**, *P. muralis* var. *dubyi* (apothecia and thallus).
TAA: Hafellner 1987b; **EMI**: Calatayud & al. 2013, B 2025; **PIE**: Ravera & al. 2022; **SAR**: Baglietto 1879: 122 (as *Cercidospora epipolytropa* on *Placodium saxatilis* = *Protoparmeliopsis muralis*), Nimis & Poelt 1987, Brackel & Berger 2019; **SIC**: B 2008b; **TOS**: B 2015a; **VEN**: Hafellner 1987b.

***Cercidospora melanophthalmae* Nav.-Ros., Calat. & Hafellner**
Mycosphere 4 (3): 551 (2013)
Hosts in Italy: *Rhizoplaca chrysoleuca*, *R. melanophthalma** (thallus).
LOM: B 2013b; **TAA**[?]: Arnold 1887a: 115 (as *Cercidospora epipolytropa* on *Rhizoplaca chrysoleuca*).

***Cercidospora mutabilicola* Calat. & al. ined.**
Lichen Flora of the Greater Sonoran Desert Region 2: 639 (2004)
Hosts in Italy: *Megaspora verrucosa* var. *mutabilis**.
BAS: Navarro-Rosinés & al. 2009a.

***Cercidospora solearispora* Calatayud, Nav.-Ros. & Hafellner**
Mycotaxon 110: 11 (2009)
Hosts in Italy: *Aspicilia calcarea* coll., *Aspicilia* sp. (thallus).
SAR: Navarro-Rosinés & al. 2009a; **VAO**: Navarro-Rosinés & al. 2009a.

***Cercidospora stenotropae* Nav.-Ros. & Hafellner ad int.**
Mycosphere 4(3): 554 (2013)
Hosts in Italy: *Lecanora polytropa** agg. (apothecia).
LIG: B 2025; **TOS**: Calatayud & al. 2013.

***Cercidospora stereocaulorum* (Arnold) Hafellner**
Herzogia 7: 362 (1987)
Bas.: *Leptosphaeria stereocaulorum* Arnold [Flora 57: 153 (1874)].
Hosts in Italy: *Stereocaulon botryosum*, *S. dactylophyllum*, *Stereocaulon* sp. (thallus).
FVG: Tretiach & Hafellner 2000; **TAA**: Arnold 1887a: 103 (as *Leptosphaeria s*.).

***Cercidospora verrucosaria* (Linds) Arnold**
Flora 57: 154 (1874)
Hosts in Italy: *Megaspora verrucosa** (thallus, apothecial margin and hymenium).
TAA: Arnold 1896a: 113, Kernstock 1893: 309, Navarro-Rosinés & al. 2009a.

***Cercidospora werneri* Nav.-Ros., Calat. & Hafellner**
Mycotaxon 110: 19 (2009)
Hosts in Italy: *Circinaria caesiocinerea* (thallus and apothecia).
TOS: B 2015a.

***Cercidospora xanthoriae* (Wedd.) R. Sant.**
Lichens and Lichenicolous Fungi of Sweden and Norway: 57 (1993)
Hosts in Italy: *Xanthoria calcicola* (thallus and apothecial disc).
SAR: Brackel & Berger 2019.

***Chaenothecopsis* Vain.**
Selected literature: Vainio 1927, Stordeur & al. 2010, Nimis & Puntillo 2024.
Note: See also the not obligately lichenicolous species in the next chapter.

***Chaenothecopsis consociata* (Nádv.) A.F.W. Schmidt**
Mitt. Staatsinst. Allg. Bot. Hamburg: 148 (1970)
Hosts in Italy: *Chaenotheca chrysocephala** (thallus)
FVG: Nimis 2026; **LIG**: Puntillo & Puntillo 2009, TSB[1)]; **LOM**: CLU[2)]; **TAA**: Puntillo & Puntillo 2009.
[1)] Prov. di Imperia, Alpi Liguri just E below Upega on right bank of the creek, bark of *Larix*, 1300 m, 2000, P. L. Nimis & M. Tretiach (TSB 33583). [2)] Prov. di Bergamo, Roncobello, Bordogna, bark of *Picea*, 650 m, 1986, D. Puntillo (CLU 2040).

***Chaenothecopsis epithallina* Tibell**
Symb. Bot. Upsal. 21 (2): 116 (1975)
Hosts in Italy: *Chaenotheca trichialis** (thallus).
CAL: Puntillo 1994, 1996, Puntillo & Puntillo 2009, CLU[1)]; **LOM**: CLU[2)].
[1)] Prov. di Cosenza, Longobucco, Sila Grande, Colle del Lupo, bark of Picea and Abies, 1450 m, 1988/1989, D. Puntillo (CLU 4718, 4750, 4751, 4752, 4825). [2)] Prov. di Bergamo, Roncobello, Bordogna, bark of Picea, 650 m, 1986, D. Puntillo (CLU 2040).

***Chaenothecopsis hospitans* (Th. Fr.) Tibell**
Nova Hedwigia 60: 202 (1995)
Hosts in Italy: *Haematomma ochroleucum* (thallus).
BAS: CLU[1)]; **CAL**: Puntillo & Puntillo 2009, Brackel & Puntillo 2016, CLU[2)]; **SAR**: CLU[3)]; **TOS**: TSB[4)].
[1)] Prov. di Potenza, Pignola, Il Ciglio, on bryophytes, 1390 m, 2012, D. Puntillo (CLU 16573). [2)] Prov. di Cosenza, Capanzano, Piano del Medico, 1100 m, 1987, Cerosimo & al. (CLU 3232). – Castiglione Cosentino, Valle del fiume Arente, on acid siliceous rocks, 240 m, 1990, D. Puntillo (CLU6686). – Rose, on acid siliceous rocks, 650 m, 1987, D.

Puntillo (CLU9610). – San Giovanni in Fiore, Sila Grande, Macchia di Pietro, on rocks, 1450 m, 1988, D. Puntillo (CLU 5405). – ibidem, bark of *Pinus*, 1988, D. Puntillo (CLU 5417). [3)] Prov. di Nuoro, Barbagia di Seulo, Monte Arbo, acid siliceous rocks, 648 m, 1987, M. Codogno & D. Puntillo (CLU 3727). – Bolotana, Nuraghe Ortachis, acid siliceous rocks, 920 m, 1987, D. Puntillo (CLU 4125). – Fonni, Orgosolo, Gennargentu, Arcu Correboi, acid siliceous rocks, 1320 m, 1987, M. Codogno & D. Puntillo (CLU 3654).– Sud Sardegna, Giara di Gesturi, acid siliceous rocks, 550 m, 1987, M. Codogno & D. Puntillo (CLU 4516). [4)] Prov. di Siena, Mt. Amiata, Abbadia S. Salvatore, loc. Acqua Passante, siliceous rocks, 2001, M. Tretiach (TSB 34230, 34246).

***Chaenothecopsis ochroleuca* (Körb.) Tibell & Ryman**

Nova Hedwigia 60: 208 (1995)

Hosts in Italy: *Haematomma ochroleucum**, *Verseghya thysanophora* (thallus).

TAA: Tibell & Ryman 1995, Kalb & al. 1995, Puntillo & Puntillo 2009.

Note: According to Nimis 2026 most records of *Haematomma ochroleucum* on bark actually belong to *Lecanora* (*Verseghya*) *thysanophora*; Zduńczyk & Kukwa (2014) made the same observation in Poland The hosts not only of the Italian records should be verified.

Chaenothecopsis parasitaster* (Bagl. & Carestia) D. Hawksw.

Notes Roy. Bot. Gard. Edinburgh 36: 184 (1978)

Bas.: *Calicium pusillum* var. *parasitaster* Bagl. & Carestia.

Hosts in Italy: *Cladonia deformis**, *C. digitata* (podetia, squamules).

LOM Jatta 1909–1911: 128, Puntillo & Puntillo 2009; **PIE**: Baglietto & Carestia 1880*: 246, Puntillo & Puntillo 2009; **TAA**: Arnold 1887a: 149, Jatta 1909–1911: 128; Puntillo & Puntillo 2009.

***Chaenothecopsis subparoica* (Nyl.) Tibell**

Nova Hedwigia 60: 208 (1995)

Hosts in Italy: *Haematomma ochroleucum* var. *porphyrium** (thallus).

CAL: Puntillo & Puntillo 2009; **SAR:** Puntillo & Puntillo 2009; **TOS**: Tretiach 2004, CLU[1)], TSB[1)]; **TAA**: Arnold 1887a: 88 (on *Chroolepus*-thallus of *Opegrapha gyroc*.), Tibell & Ryman 1995, Puntillo & Puntillo 2009.

[1)] Prov. di Siena, Abbadia San Salvatore, Monte Amiata, Acqua Passante, on siliceous rocks, 2002, M. Tretiach (CLU 12557, TSB 35034, 35033).

***Chaenothecopsis treicheliana* (B. Stein) Kalb**

Herzogia 6: 77 (1982)

Hosts in Italy: *Lecanora* sp., epiphytic (apothecia).

CAL. Puntillo 1992b, 1994, 1996.

***Chalara* (Corda) Rabenh.**

Selected literature: Nag-Raj & Kendrick 1975, Diederich & al. 2024e.

Note: See also the dubious species in the next chapter.

***Chalara ochrolechiae* Brackel & Zhurb.**
Flora of Lichenicolous Fungi 2: 105 (2024)
Hosts in Italy: *Lepra albescens* (thallus).
TOS: Diederich & al. 2024e.

***Ciliomyces* Höhn.**
Selected literature: Darmostuk & al. 2025a.

***Ciliomyces oropensis* (Ces.) Höhn.**
Can. J. Bot. 55: 2555 (1977)
Bas.: *Sphaeria* (*Nectria*) *oropensis* Ces. in Rabenh.; Syn.: *Paranectria oropensis* (Ces.) D. Hawksw. & Piroz.
Hosts in Italy: *Candelariella xanthostigma*, *Cladonia parasitica*, *Cladonia* sp.*, *Glaucomaria carpinea*, *L. chlarotera*, *Lepraria* sp., *Melanelixia glabratula*, *Normandina pulchella*, *Parmelina tiliacea*, *Phaeophyscia orbicularis*, *Physcia aipolia*, *P. tenella*, *Physconia distorta*, *P. enteroxantha*, *P. perisidiosa*, *P. venusta*, *Physconia* sp., *Pleurosticta acetabulum* (thallus, soredia, apothecia).
CAL: Brackel & Puntillo 2016; **EMI**: B 2025; **FVG**: Tretiach 1993; **MAR**: B 2015a, 2025; **PIE**: De Cesati in Rabenhorst 1857*, Triebel 1989, BSM 2006–2025[1)]; **SAR**: Brackel & Berger 2019; **SIC**: B 2008b; **TOS**: B 2015a, 2025; **UMB**: B 2025.
[1)] ad marginem campellorum muratorum secus viam prope amplissimum Sanctuarium Stae. Mariae Deiparae in Monte Oropa (provinciae Bugellensis - Pedemont.), 1856–09, V. de Cesati (M-0042669); Exsicc.: Rabenhorst, Klotzschii Herb. Viv. Mycol. Ed. II.
Note: An unspecific species infecting many mainly epiphytic lichens.

***Cladophialophora* Borelli**
Selected literature: Diederich & al. 2024i.

***Cladophialophora denigrans* (Diederich) Boers, Diederich & Ertz**
Flora of Lichenicolous Fungi 2: 121 (2024)
Bas.: *Trimmatostroma denigrans* Diederich.
Hosts in Italy: *Lecanora argentata* (thallus and apothecia).
TOS: B 2025.

***Cladophialophora parmeliae* (Etayo & Diederich) Diederich & Untereiner**
Fungal Diversity 58: 70 (2012)
Hosts in Italy: *Flavoparmelia caperata*, *Hypogymnia physodes*, *Parmelia saxatilis**, *Parmelina quercina* (thallus).
CAL: Brackel & Puntillo 2016; **TOS**: B 2015a.

***Cladosporium* Link**
Selected literature: Crous & al. 2007, Diederich & al. 2024f.

***Cladosporium licheniphilum* Heuchert & U. Braun**
Herzogia 19: 12 (2006)

Hosts in Italy: *Anaptychia ciliaris*, *Evernia prunastri*, *Flavoparmelia caperata*, *Glaucomaria carpinea*, *L. chlarotera*, *L. horiza*, *L. pulicaris*, *Melanelixia subaurifera*, *Ochrolechia balcanica*, *Parmelina tili*acea, *Parmotrema perlatum*, *Peltigera degenii*, *Pertusaria hymenea*, *P. pertusa*, *Physcia aipolia*, *P. biziana*, *P. leptalea*, *P. tenella*, *Physconia distorta*, *Pseudevernia furfuracea*, *Ramalina farinacea*, *R. fastigiata*, *Ramalina* sp., *Xanthoria parietina* (thallus and apothecia).

ABR: B 2015a; **BAS**: B 2011a; **CAL**: Brackel & Puntillo 2016; **CAM**: B 2021; **LAZ**: B 2015a, 2025; **LOM**: B 2010d; **MAR**: B 2025; **MOL**: B 2020; **PUG**: B 2011a; **TOS**: B 2008c, 2015a; **SAR**: Brackel & Berger 2019; **SIC**: B 2008b; **VEN**: B 2013b.

***Clypeococcum* D. Hawksw.**

Selected literature: Hawksworth 1977b, Zhurbenko 2023a.

***Clypeococcum cladonema* (Wedd.) D. Hawksw.**

Bot. J. Linn. Soc. 75: 197 (1977)

Hosts in Italy: *Xanthoparmelia pulla* (thallus).

TAA: Hafellner 1994b.

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

Notes Roy. Bot. Gard. Edinburgh 38: 167 (1980)

Hosts in Italy: *Hypocenomyce scalaris** (thallus).

CAL: Brackel & Puntillo 2016; **EMI**: Tretiach & al. 2008, B 2025; **TOS**: B 2015a; **TAA**: Thor & Nascimbene 2007, B 2013b.

Note: A short discussion on the anamorph is given in B 2025.

Clypeococcum psoromatis* (A. Massal.) Etayo

Lichenologist 42: 232 (2010)

Bas.: *Sphaeria psoromatis* A. Massal**.** [Flora 38: 241 (1855)]; Syn.: *Polycoccum psoromatis* (A. Massal.) Hafellner, *Polycoccum epicrassum* (Oliv.) R. Sant., *Clypeococcum epicrassum* (H. Olivier) Nav.-Ros. & Cl. Roux, *Clypeococcum psoromatis* (A. Massal.) Etayo

Hosts in Italy: *Squamarina cartilaginea** (thallus).

BAS: Nimis & Tretiach 1999; **CAM**: Nimis & Tretiach 2004; **PIE**: Matteucci & al. 2019; **TOS**: Hawksworth 1986, Hawksworth & Diederich 1988; **VEN**: Massalongo 1855*: 241 (on *Psoroma crassa* = *Squamarina cartilaginea*), BSM 2011–2015[1)].

[1)] M. Oliveto prope Veronam, on *Psoroma crassa* = *Squamarina cartilaginea*, 1859, ¿A. Massalongo? (M-0041233)

Notes: Nimis & Tretiach 1999 and 2004 did not mention a host; most probably it grew on *Squamarina cartilaginea*, as this is the only species from the genus *Squamarina* mentioned for the respective locality and *C. psoromatis* is restricted to hosts of this genus. The specimen in M is from the herbarium of F. Arnold, who noted on it “Ex herb. Massalongo”; as Massalongo described the species from the Prov. di Verona “hinc inde passim = here and there” it may be from the type location.

***Codonmyces* Calatayud & Etayo**

Selected literature: Calatayud & Etayo 1999, Diederich & Zhurbenko 2024.

***Codonmyces lecanorae* Calatayud & Etayo**
Lichenologist 31: 594 (1999)
Hosts in Italy: *Protoparmeliopsis muralis* (apothecia).
LAZ: B 2015a, Diederich & Zhurbenko 2024.

***Corticifraga* D. Hawksw. & R. Sant.**
Selected literature: Hawksworth & Santesson 1990, Roux & Pinault 2024.

***Corticifraga fuckelii* (Rehm) D. Hawksw. & R. Sant.**
Biblioth. Lichenol. 38: 125 (1990)
Hosts in Italy: *Peltigera membranacea* (thallus).
FVG: Hafellner 2021a.

***Corticifraga nephromatis* Pérez-Ort.**
Lichenologist 52: 93 (2020)
Hosts in Italy: *Nephroma bellum** (thallus).
TAA: Hafellner 2021a.

***Corticium* Pers.**
Selected literature: Diederich & al. 2022h.

***Corticium silviae* Diederich, E. Zimm. & Lawrey**
Bull. Soc. nat. luxemb. 120: 52 (2018)
Hosts in Italy: *Thamnolia vermicularis** (thallus).
TAA: Zimmermann & Berger 2021, Diederich & al. 2022b.

***Crittendenia* Diederich, Millanes, M. Westb., Etayo, J.C. Zamora & Wedin**
Selected literature: Diederich & al. 2024g.

***Crittendenia lecidellae* Diederich, Etayo & Millanes**
Bryologist 125 (2): 277 (2022)
Hosts in Italy: *Lecidella elaeochroma** (thallus, rarely apothecia)
MAR: B 2015 (as *Chionosphaera* cf. *apobasidialis*), Diederich & al. 2022b.

***Crittendenia physciiphila* Diederich, P. Pinault, Etayo & Millanes**
Bryologist 125: 283 (2022)
Hosts in Italy: *Physcia leptalea* (thallus)
LAZ: B 2015 (as *Chionosphaera* cf. *apobasidialis*), Diederich & al. 2022b.

***Dacampia* A. Massal.**
Selected Literature: Khodosovtsev & Darmostuk 2016.
Note: See also the slightly lichenised and dubious species in the next chapter.

***Dacampia engeliana* (Saut.) A. Massal.**

Geneacaena lichenum noviter proposita ac descripta: 22 (1854)

Syn.: *Xenosphaeria engeliana* (Saut.) Trevis., *Pleospora engeliana* (Saut.) Winter

Hosts in Italy: *Solorina saccata*, *Solorina* sp.* (thallus).

Italy (without site): Vouaux 1913:123; **FVG**: Ravera & al. 2024b; **LOM**: BSM 2006–2015[1)], Hafellner 2014; **PIE**: Baglietto & Carestia 1880: 352, Jatta 1909–1911: 843, ITALIC-HERBARIA[2)]; **TAA**: Arnold 1887a: 133, BSM 2006–2015[3)], ITALIC-HERBARIA [4)]; **VEN**: Ravera & al. 2024b.

[1)] in thallo Solorinae saccatae in vallibus Bormiensibus, without date, M. Anzi (M-0041286). [2)] Prov. di Cuneo, Alpi Cozie Western ridge of M. Nebin ca. 1 Km E of Colle di Sempeyre, soil and plant debris, 2000, P. L. Nimis & M. Tretiach (TSB 32987). – Ridge W above Colle del Vallonetto, 2000, P. L. Nimis & M. Tretiach (TSB 34652). [3)] Damersthal auf dem Schlern in Südtirol, auf *Solorina* sp., 07.1867, F. Arnold (M-0041290). – Kalkboden in der Thalmulde oben auf der Viesena, Predazzo in Südtirol, 08.1884, F. Arnold (M-0041296). – Tirol, Seiser Alm on calcareous rock and soil, alt. 1900 m, on *Solorina* sp., 07.1984, A. Aptroot (M-0045104). [4)] Adamello Brenta Natural Park, Sasso Rosso, on *Solorina* sp., 2022, J. Nascimbene & C. Pistocchi (herb. Nascimbene JN8957).

***Dacampia rufescentis* (Vouaux) D. Hawksw.**

Notes Roy. Bot. Gard. Edinburgh 43: 497 (1986)

Hosts in Italy: *Peltigera praetextata* (thallus).

SAR: Brackel & Berger 2019.

***Didymocyrtis* Vain.**

Selected literature: Ertz & al. 2015, Hafellner 2015.

***Didymocyrtis bryonthae* (Arnold) Hafellner**

Fungal Diversity 74: 66 (2015)

Bas.: *Endococcus bryonthae* Arnold; Syn.: *Tichothecium bryonthae* (Arnold) Jatta, *Polycoccum bryonthae* (Arnold) Vězda, *Phoma denigricans* Hafellner.

Hosts in Italy: *Lecanora epibryon** (in older records erroneously as *Pertusaria bryontha*, Ertz & al. 2015) (apothecia: hymenium).

LOM: Ertz & al. 2015 (on *Lecanora epibryon*), **PIE**: Baglietto & Carestia 1880: 355 (on an unidentified terricolous lichen), Jatta 1909–1911: 841 (on *Pertusaria bryonthae*), **TAA**: Hafellner 1994b, 2015.

Note: The citation "Italy" in Hawksworth & Diederich 1988 is incorrect ("Waldrast/Matreier Grube" is part of Tirol in Austria).

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

Fungal Diversity 74: 67 (2015)

Bas.: *Phoma cladoniicola* Diederich, Kocourk. & Etayo.

Hosts in Italy: *Cladonia foliacea* (p.p. as *C. convoluta*), *C. furcata*, *C. pyxidata**, *C. pyxidata* f. *pocillum*, *C. rangiformis*, *Flavoparmelia caperata*, *Parmelia sulcata*, *Parmotrema perlatum*, *Punctelia subrudecta*, *Ramalina fastigiata*, *Squamarina lentigera* (basal squamules, podetia, thallus).

ABR: B 2015a; **CAL**: Brackel & Puntillo 2016, new record below; **CAM**: B 2021; **EMI**: Munzi & al. 2020, B 2025; **FVG**: Hafellner 2015; **LAZ**: B 2015a; **LIG**: B 2025; **MAR**: B 2025; **MOL**: B 2020; **TAA**: Brackel in prep.; **TOS**: B 2015a.

New record: **CAL**: Prov. di Cosenza, Cosenza, Luzzi, Gidora, on acid soil, on *Cladonia foliacea* (thallus), 165 m, 16.02.2015, leg. D. Puntillo, det. W. v. Brackel (CLU 18234).

***Didymocyrtis consimilis* Vain.**

Acta Soc. Fauna Flora Fennica 49: 221 (1921)

Bas.: *Phoma caloplacae* D. Hawksw.

Hosts in Italy: *Caloplaca cerina**, *C. stillicidiorum*, *C. stillicidiorum* var. *muscorum*, *Parvoplaca tiroliensis* (thallus and apothecial disc).

ABR: B 2015a; **BAS**: Hafellner 2015; **LOM**: Ertz & al. 2015; **TAA**: Ertz & al. 2015, Hafellner 2015.

Note: An illustrated description (also of the anamorph) is given in B 2015a.

***Didymocyrtis epiphyscia* Diederich & Ertz s. str.**

Fungal Diversity 74: 71 (2015)

Bas.: *Phoma physciicola* Keissler.

Hosts in Italy: *Anaptychia ciliaris*, *Physcia adscendens*, *P. leptalea*, *P. stellaris, Physconia distorta, P. venusta* (apothecia, rarely thallus).

CAL: Brackel & Puntillo 2016; **CAM**: B 2021; **EMI**: B 2025.

***Didymocyrtis epiphyscia* Diederich & Ertz s. lat.**

Fungal Diversity 74: 72 (2015)

Bas.: *Phoma epiphyscia* Keissler.

Hosts in Italy: *Phaeophyscia orbicularis**, *Physcia adscendens*, *P. aipolia*, *P. leptalea*, *P. stellaris*, *P. tenella*, *Physconia enteroxantha*, *P. venusta*, *Xanthoria parietina* (thallus and apothecia).

ABR: B 2015a; **CAL**: Brackel & Puntillo 2016; **EMI**: Munzi & al. 2020, B 2025, **FVG**: Hafellner & Zimmermann 2012; **MAR**: B 2015a; **PUG**: 2011a; **SAR**: Brackel & Berger 2019; **SIC**: B 2008b; **TOS**: B 2015a; **UMB**: B 2015a.

***Didymocyrtis foliaceiphila* (Diederich, Kocourk. & Etayo) Ertz & Diederich**

Fungal Diversity 74: 73 (2015)

Bas.: *Phoma foliaceiphila* Diederich, Kocourk. & Etayo

Hosts in Italy: *Cladonia foliacea** (p.p. as *C. convoluta*), *C. pyxidata* (thallus).

CAL: Brackel & Puntillo 2016; **PUG**: B 2011a; **TOS**: B 2015a.

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

Bryologist 121: 357 (2018)

Bas.: *Phoma grumantiana* Zhurb. & Diederich

Hosts in Italy: *Cladonia foliacea* (thallus).

CAL: Brackel & Puntillo 2016.

Didymocyrtis melanelixiae* (Brackel) Diederich, Harris & Etayo
Fungal Diversity 74: 74 (2015)
Bas.: *Phoma melanelixiae* Brackel.
Hosts in Italy: *Melanelixia glabra**, *Parmotrema crinitum, P. perlatum*, *Usnea* cf. *cornuta* (thallus).
BAS: B 2011a*; **CAL**: Brackel & Puntillo 2016; **CAM**: B 2021; **SAR**: Brackel & Berger 2019; **TOS**: B 2015a ("cf.").
Note: The description of the anamorph ("*Phoma melanelixiae*") is given in B 2011a.

***Didymocyrtis microxanthoriae* Poumarat, Delhoume, Diederich & Suija**
Bull. Soc. nat. luxembourg. 123: 132 (2021)
Hosts in Italy: *Xanthoria parietina** (apothecia).
CAL: Brackel & Puntillo 2016 (as *D. consimilis* s. lat.).
Note: This only recently described species (Suija & al. 2021) is somehow similar to *Didymocyrtis consimilis*, but in its strict sense the latter is restricted to hosts of the *Caloplaca cerina* group (Ertz & al. 2015).

***Didymocyrtis peltigerae* (Fuckel) Hafellner**
Fritschiana 94: 10 (2019)
Syn.: *Polycoccum peltigerae* (Fuckel) Vězda
Hosts in Italy: *Peltigera horizontalis*, *P. praetextata*, *P. rufescens* (thallus).
ABR: B2015a; **MOL**: B 2020; **TOS**: B 2025.

***Didymocyrtis pseudeverniae* (Etayo & Diederich) Ertz & Diederich**
Fungal Diversity 74: 77 (2015)
Syn.: *Diederichia pseudeverniae* (Etayo & Diederich) D. Hawksw.
Hosts in Italy: *Pseudevernia furfuracea** (thallus).
CAL: Brackel & Puntillo 2016; **PIE**: Motiejūnaitė & Grochowski 2014; **TAA**: B 2013b.

***Didymocyrtis ramalinae* (Roberge ex Desm.) Ertz, Diederich & Hafellner**
Fungal Diversity 74: 77 (2015)
Syn.: *Leptosphaeria ramalinae* (Desm.) Sacc., *Phoma ficuzzae* Brackel
Hosts in Italy: *Evernia prunastri*, *Ramalina farinacea*, *R. fastigiata**, *R. fraxinea**, *Ramalina* sp. (thallus).
BAS: B 2011; **CAL**: Brackel & Puntillo 2016; **CAM**: B 2021; **EMI**: B 2015a, 2025; **LAZ**: B 2015a; **MOL**: B 2020; **PUG**: B 2011; **SAR**: Hafellner 2015, Brackel & Berger 2019; **SIC**: B 2008a*,b; **TOS**: B 2008c, 2015, 2025.
Note: The description of the anamorph ("*Phoma ficuzzae*") is given in B 2008a.

***Didymocyrtis slaptoniensis* (D. Hawksw.) Hafellner & Ertz**
Fungal Diversity 74: 80 (2015)
Bas.: *Polycoccum slaptoniensis* D. Hawksw.
Hosts in Italy: *Xanthoria parietina** (thallus and apothecia).
ABR: B 2015a (as *Phoma epiphyscia* on *Xanthoria parietina*); **CAL:** Brackel & Puntillo 2016; **CAM**: B 2021; **LAZ**: B 2015a; **MAR**: B 2015a (as *P. epiphyscia* on *X. pari-*

etina), B 2025; **SAR**: Brackel & Berger 2019; **TOS**: B 2008c, 2025; **UMB**: B 2015a (as *P. epiphyscia* on *X. parietina*).

***Diplolaeviopsis* Giralt & D. Hawksw.**

Selected literature: Giralt & Hawksworth 1991.

***Diplolaeviopsis ranula* Giralt & D. Hawksw.**

Mycol. Res. 95: 759 (1991)

Hosts in Italy: *Lecanora strobilina** (thallus and apothecia).

CAM: Suija & al. 2014, Ravera & al. 2017a.

***Echinothecium* Zopf**

Selected literature: Roux & Pinault 2021.

***Echinothecium reticulatum* Zopf**

Nova Acta Acad. Caes. Leop.-Carol. German. Nat. Cur. 70(4): 250 (1898)

Syn.: *Sphaerellothecium reticulatum* (Zopf) Etayo

Hosts in Italy: *Flavoparmelia caperata*, *Parmelia omphalodes*, *P. saxatilis*, *Parmelina quercina*, *P. tiliacea* (thallus).

BAS: B 2011a; **CAL**: Brackel & Puntillo 2016; **PUG**: B 2011a; **SAR**: Nimis & Poelt 1987, Brackel & Berger 2019; **SIC**: B 2008b; **TAA**: Arnold 1897b: 213.

Note: The record of *Echinothecium reticulatum* Zopf on *Xanthoparmelia conspersa* from Prov. di Nuoro, Rio Madau (Nimis & Poelt 1987) may refer to *Lichenostigma cosmopolites*. Possibly, only the specimens on *Parmelia* s. str. belong to *E. reticulatum* s. str.

***Echinothecium rhizoplacae* P. Pinault & Cl Roux**

Bull. Soc. linn. Provence 72: 56 (2021)

Hosts in Italy: *Rhizoplaca chrysoleuca* (thallus and apothecia).

VAO: Roux & Pinault 2021.

***Ellisembia* Subram.**

Selected literature: Heuchert & al. 2024a.

***Ellisembia lichenicola* Heuchert & U. Braun**

Herzogia 19: 16 (2006)

Hosts in Italy: *Alyxoria varia*, *Bacidia rubella*, *Lecanora chlarotera*; *Lecidella elaeochroma* (thallus and apothecia).

LAZ: B2015a; **LOM**: B 2013b; **PUG**: B 2011a; **UMB**: B 2025.

***Endococcus* Nyl.**

Selected literature: Sérusiaux & al. 1999, Hafellner 2019.

Note: The whole genus is in urgent need of revision and many older records were made under misleading names; Triebel (1989) treated the species in a very broad sense, which has caused additional confusion so that many older records cannot be assigned to a valid name. These are listed here provisionally:

as *Tichothecium gemmiferum* (Tayl.) Körb.: **PIE**: Baglietto & Carestia 1880: 354 [on undetermined lichen]. **TAA**: Arnold 1873a: 102 [on *Aspicilia cinerea*].

as *Endococcus perpusillus* Nyl. (agg.): **BAS**: Nimis & Tretiach 1999 (on *Rhizocarpon*); **SAR**: Brackel & Berger 2019 (on *Aspicilia*); **TOS**: Triebel 1989 (on *Rhizocarpon*); **TAA**: Triebel 1989 (on *Rhizocarpon*).

as *Endococcus propinquus* (Körb.) D. Hawksw. (agg.), p.p. as *Tichothecium gemmiferum* auct. p.p. non (Tayl.) Körb.: **LOM**: Anzi 1862: 166, Jatta 1909–1911: 840; **SIC**: van den Boom 1992; **TAA**: Arnold 1872b: 301, 1887a: 89, 115, 1896a: 119, 121, Kernstock 1890: 322, 336, 350, 1891: 737, 1892b: 349, 1895: 203, 1896: 302, 308, Pfaff 1933: 56, Triebel 1989.

as Endococcus rugulosus Nyl. (agg.): **SAR**: Nimis & Poelt 1987; **SIC**: B 2008b; **TAA**: Triebel 1989, Hafellner & Sancho 1990.

Endococcus brachysporus* (Zopf) Brand & Diederich

Lejeunia N. S. 162: 24 (1999)

Bas.: *T. gemmiferum* var. *brachysporum* Zopf. – dubious: *Tichothecium gemmiferum* (Tayl.) Körb.

Hosts in Italy: *Porpidia crustulata*, *P. speirea*, *Porpidia* cf. *speirea**, *Porpidia* sp. (thallus).

TOS: B 2015a; **TAA**: Arnold 1879a: 357, Kernstock 1893: 309, Zopf 1898*: 283, Sérusiaux & al. 1999: 24.

***Endococcus caesiocinereae* Diederich, Cl. Roux & M. Brand**

Bull. Soc. linn. Provence 74: 148 (2023)

Hosts in Italy: *Aspicilia* s. lat. sp. (thallus and apothecia).

BAS: see below.

New record: **BAS**: Prov. di Potenza, Terranova di Pollino, Timpa di Pietra Sasso, 16.06.2010, leg. D. & M. Puntillo, det. W. v. Brackel (CLU). This recently described species is new to Italy.

Endococcus collematis* Brackel

Borziana 2: 39 (2021)

Hosts in Italy: *Lathagrium auriforme**, *Collema* s. lat. sp. (thallus).

ABR: B 2021; **BAS**: Ravera & al. 2022a; **CAL**: B 2021*; **CAM**: B 2021; **TOS**: Ravera & al. 2022a.

Note: The finds from the Abruzzo and from Calabria were already reported as "*Endococcus pseudocarpus* Nyl. agg." in B 2015a and Brackel & Puntillo 2016, respectively.

***Endococcus exerrans* Nyl.**

Flora 62: 360 (1879)

Hosts in Italy: *Rhizocarpon distinctum*, *R. geographicum* (thallus).

CAL: Brackel & Puntillo 2023, new record below; **SIC**: B 2008b; **TAA**: Arnold 1879a: 355 (as *E. complanatae* "var. *videtur*" on *Rhizocarpon distinctum*).

New record: **CAL**: Prov. di Cosenza, Parco Nazionale del Pollino, Civita, on acid rock, on *Rhizocarpon geographicum*, 965 m, 3.11.2022, leg. D. & M. Puntillo, det. W. v. Brackel (CLU 18235).

***Endococcus fusiger* Th. Fr. & Almq.**

Bot. Not.: 109 (1867)

Hosts in Italy: *Rhizocarpon disporum*, *R. geminatum** (thallus).

TAA: BSM 2006–2025[1)] (as *E. perpusillus*).

[1)] Südtirol, Ortler-Gruppe, Fußweg von Sulden auf der rechten Talseite nach St. Gertraud, ca. 1800 m 9429/4, auf *Rhizocarpon geminatum*, 13.08.1978, T. Feuerer & N. Höhne (M-0041622). – Melaphyr u. Uralitporphyrgerölle Grand Mulatt bei Predazzo. Südtirol, auf *Rhizocarpon disporum*, 08.1878, F. Arnold (M-0041632).

Note: The two specimens in M, labelled "*Endococcus perpusillus* Nyl. on *Rhizocarpon geminatum*" and "*Endococcus perpusillus* on *Rhizocarpon disporum*" respectively, after the broad concept of Triebel for *Endococcus*, are here assigned to *Endococcus fusiger*, as the type of this species grew on *R. geminatum*. A thorough re-examination of the *Endococcus* specimens in M is urgently required.

***Endococcus hafellneri* (Zhurb.) Zhurb.**

Pl. Fung. Syst. 64(2): 352 (2019).

Hosts in Italy: *Cetraria aculeata*, *C. ericetorum*, *C. islandica* (thallus).

ABR: B 2015a; **LAZ**: B2015a.; **UMB**: B 2025.

Note: A short description of the anamorph is given in B 2025.

Endococcus hygrophilus* Arnold

Flora 54: 147 (1871)

Syn.: *Stigmidium hygrophilum* (Arnold) R. Sant., *Tichothecium hygrophilum* (Arnold) Jatta

Hosts in Italy: *Rhizocarpon badioatrum** (thallus).

PIE: Arnold 1871b*: 147, Baglietto & Carestia 1880: 355 (on *Rhizocarpon badioatrum* as *Buellia badio-atra rivularis*), Jatta 1909–1911: 840;

***Endococcus macrosporus* (Arnold) Nyl.**

Bull. Soc. Bot. France 25 (5): 504 (1880)

Bas.: *Tichothecium macrosporum* Hepp ex Arnold, *Discothecium macrosporum* (Hepp) Zopf

Hosts in Italy: *Rhizocarpon geographicum*, *Rhizocarpon* sp. (thallus).

BAS: Brackel & Puntillo 2023; **FVG**: Tretiach & Hafellner 2000; **PIE**: Baglietto & Carestia 1880: 353, Jatta 1909–1911: 839; **SAR**: Nimis & Poelt 1987 as *E. stigma*; **TAA**: Arnold 1872b: 302, 1879a: 355, 1880b: 106, 1896a: 119, Kernstock 1891: 738, 1895: 204, Pfaff 1933: 56.

Note: The records of the species from Calabria (Brackel & Puntillo 2016) and Sicilia (B 2008b) have been shown to belong to the newly described *Endococcus sardous*, see below. Some of the older records may also belong to this species.

***Endococcus perpusillus* Nyl. s. str.**

Act. Soc. Linn. Bordeaux 21: 439 (1856/1857)

Hosts in Italy: *Schaereria fuscocinerea** (thallus).

FVG: Tretiach & Hafellner 2000.

***Endococcus propinquus* (Körb.) D.Hawksw. s. str.**
Bot. Not. 132: 287 (1979)
Hosts in Italy: *Porpidia tuberculosa**, *Porpidia* sp. (thallus).
EMI: Tretiach & al. 2008, Hafellner 2019; **FVG**: Hafellner 2019, Tretiach & Hafellner 2000.

***Endococcus ramalinarius* (Linds.) D. Hawksw.**
Bot. Not. 132: 287 (1979)
Hosts in Italy: *Ramalina farinacea*, *R. fastigiata*, *R. fraxinea* (thallus and apothecia).
CAL: Brackel & Puntillo 2016, new record below; **CAM**: B 2021; **SIC**: Brackel & Puntillo 2016.
New record: **CAL**: Prov. di Cosenza, Lungro, Piano Campolongo, on the bark of *Fagus sylvatica*, on *Ramalina farinacea* (thallus), 1352 m, 23.03.2023, leg. D. Puntillo, det. W. v. Brackel (CLU 18241). Ascospores slightly longer than usual, (9–)10–12 × 3.5–4 µm.
Note: The possible anamorph is sketched in B 2020.

***Endococcus rugulosus* Nyl. s. str.**
Mém. Soc. Imp. Sci. Nat. Cherbourg 3: 193 (1855)
Hosts in Italy: *Verrucaria nigrescens*, *Verrucaria* sp. (thallus).
SAR: Brackel & Berger 2019; **SIC**: B 2008b.

Endococcus sardous* Brackel
Herzogia 32: 452 (2019)
Hosts in Italy: *Rhizocarpon geographicum** (thallus).
BAS: Brackel & Puntillo 2023; **CAL**[1)]; **SAR**[1)]; **SIC**[1)].
[1)] Brackel & Berger 2019*.

***Endococcus stigma* (Körb.) Stizenb. s. str.**
Ber. St. Gall. Naturw. Ges. 1880-1881: 516 (1882)
Hosts in Italy: *Acarospora freyi*, *Acarospora* sp.* (thallus).
FVG: Hafellner 2019a; **TAA**: Hafellner 2019a.

***Endococcus verrucosus* Hafellner**
Herzogia 10: 8 (1994)
Hosts in Italy: *Aspicilia cinerea* agg., *A. grisea*, *Aspicilia* sp. (thallus).
FVG: Tretiach & Hafellner 2000; **SIC**: B 2008b; **TAA**: Hafellner 1994b.

***Epicladonia* D. Hawksw.**
Selected literature: Pinault & Roux 2020.

***Epicladonia sandstedei* (Zopf) D. Hawksw.**
Bull. Brit. Mus. (Nat. Hist.), Bot. 9: 16 (1981)
Hosts in Italy: *Cladonia caespiticia**, *C. furcata*, *C. rangiferina*, *C. rangiformis*, *C. squamosa* (podetia and rarely apothecia).

CAL: Brackel & Puntillo 2016; **CAM**: B 2021; **LIG**: B 2025; **TOS**: B 2015a; **TAA**: B 2013b.

Note: A short description is given in B 2021.

***Epicladonia simplex* D. Hawksw.**

Bull. Brit. Mus. (Nat. Hist.), Bot. 9: 19 (1981)

Hosts in Italy: *Cladonia furcata* subsp. *subrangiformis*, *C. pyxidata* (squamules and podetia).

ABR: B 2015a; **UMB**: B 2025.

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

Bull. Brit. Mus. (Nat. Hist.), Bot. 9: 20 (1981)

Hosts in Italy: *Cladonia foliacea* (pp. as *C. convoluta*) (basal squamules).

CAM: B 2021; **MOL**: B 2020.

Note: A short description is given in B 2021.

***Epithamnolia* Zhurb.**

Selected literature: Suija & al. 2024.

***Epithamnolia longicladoniae* (Diederich & van den Boom) Diederich & Suija**

Mycologia 109: 891 (2017)

Bas.: *Hainesia longicladoniae* Diederich & van den Boom

Hosts in Italy: *Cladonia rangiformis* (podetia).

LAZ: B2015a.

***Epithamnolia rangiferinae* E. Zimm., Diederich & Suija**

Mycologia 109(6): 892 (2018)

Hosts in Italy: *Cladonia rangiferina** (thallus).

LOM: Hafellner 2018.

***Epithamnolia xanthoriae* (Brackel) Diederich & Suija**

Mycologia 109: 896 (2017)

Bas.: *Hainesia xanthoriae* Brackel; Syn.: *H. lecanorae* Brackel.

Hosts in Italy: *Hypogymnia tubulosa*, *Lecanora chlarotera*, *Parmelia sulcata*, *Platismatia glauca*, *Pseudevernia furfuracea*, *Xanthoria parietina**, *Zeora symmicta* (thallus and apothecia).

TOS: B 2014, B 2015a.

***Erythricium* J. Erikss. & Hjorstam**

Selected literature: Diederich & al. 2022h.

***Erythricium aurantiacum* (Lasch) D. Hawksw. & A. Henrici**

Field Mycology 16: 16 (2015)

Bas.: *Marchandiobasidium aurantiacum* Diederich & Schultheis.

Hosts in Italy: *Physcia adscendens*, *P. aipolia*, *P. leptalea*, *P. stellaris*, *P. tenella**, *Physconia distorta*, *Xanthoria parietina* (thallus and apothecia).

ABR: B 2015a; **CAL**: Brackel & Puntillo 2016; **EMI**: Munzi & al. 2020; **LAZ**: B 2015a; **MAR**: B 2025; **SAR**: Brackel & Berger 2019; **SIC**: B 2008b, Brackel & Puntillo 2023; **TOS**: B 2008c; **VEN**: B 2013b.

Note: a widespread pathogen, infecting mostly Physciaceae and *Xanthoria* in more or less nutrient rich environments, whereas *Marchandiomyces corallinus* prefers infecting members of the Parmeliaceae, more rarely Physciaceae.

***Everniicola* D. Hawksw.**

Selected literature: Hawksworth 1982.

***Everniicola flexispora* D. Hawksw.**

Notes Roy. Bot. Gard. Edinburgh 40: 384 (1982)

Hosts in Italy: *Parmelia submontana*, *Ramalina fastigiata* (thallus and apothecia).

SAR: Brackel & Berger 2019; **LAZ**: B 2015a.

***Feltgeniomyces* Diederich**

Selected literature: Diederich & al. 2024d.

***Feltgeniomyces luxemburgensis* Diederich**

Mycotaxon 37: 307 (1990)

Hosts in Italy: *Lecidella elaeochroma* (thallus)

CAM: B 2021.

Note: A short illustrated description is given in B 2021.

***Gonatophragmium* Deighton**

Selected literature: Ertz & al. 2024.

***Gonatophragmium lichenophilum* F. Berger & U. Braun**

Mycobiota 5: 8 (2015)

Hosts in Italy: *Physcia leptalea*, *Xanthoria parietina** (thallus and apothecia).

MAR: B 2025.

***Graphium* Corda**

Selected literature: Diederich 2024a.

***Graphium aphthosae* Alstrup & D. Hawksw.**

Meddel. Grønl., Biosci. 31: 37 (1990)

Hosts in Italy: *Peltigera leucophlebia* (thallus).

FVG: Tretiach & Hafellner 2000.

***Gyrophthorus* Hafellner & Sancho**

Selected literature: Hafellner & Sancho 1990.

***Gyrophthorus perforans* Hafellner & Sancho**
Herzogia 8: 371 (1990)
Hosts in Italy: *Umbilicaria hirsuta* (thallus).
CAL: Hafellner & Sancho 1990.

***Halospora* (Zschacke) Tomas. & Cif.**
Selected literature: Hafellner 2011.

***Halospora deminuta* (Arnold) Tomas. & Cif.**
Arch. Bot. (Forli) 28: 11 (1952)
Bas.: *Polyblastia deminuta* Arnold.
Hosts in Italy: sterile endolithic crusts.
FVG?: Zschacke 1933, Tretiach 1993; **LOM**: Garovaglio 1863, Tomaselli 1946; **TAA**: Arnold 1869: 648, Dalla Torre & Sarnthein 1902, Zschacke 1933, Roux & al. 2002, Hafellner 2011.

***Halospora discrepans* (J. Lahm ex Arnold) Hafellner**
Biblioth. Lichenol. 106: 87 (2011)
Bas.: *Polyblastia discrepans* J. Lahm ex Arnold.
Hosts in Italy: *Protoblastenia incrustans*, *Protoblastenia* sp., *Verrucaria dufourii* (thallus).
SAR: Brackel & Berger 2019; **TAA**: Arnold 1887a: 135, Triebel 1989, Roux & al. 2002, Hafellner 2011.

***Homostegia* Fuckel**
Selected literature: Hawksworth & al. 2004.

***Homostegia piggotii* (Berk. & Broome) P. Karsten**
Not. Sällsk. Fauna Fl. Fenn. Förh. 13: 222 (1873)
Hosts in Italy: *Parmelia saxatilis** (thallus).
TOS: B 2015a.

***Illosporiopsis* D. Hawksw.**
Selected literature: Diederich 2024b.

***Illosporiopsis christiansenii* (B.L. Brady & D. Hawksw.) D. Hawksw.**
Mycol. Res. 105: 457 (2001)
Bas.: *Hobsonia christiansenii* B.L. Brady & D. Hawksw.
Hosts in Italy: *Candelaria concolor**, *Physcia leptalea*, *P. stellaris*, *P. tenella*, *Physconia* sp., *Xanthoria parietina* (thallus).
ABR: B 2015a; **CAL**: Brackel & Puntillo 2016; **LOM**: Hawksworth 1979, Lowen & al. 1986*; **MAR**: B 2025; **PUG**: B 2011a; **TAA**: Brackel 2016; **TOS**: B 2015a; **SIC**: B 2015a, Brackel & Puntillo 2023; **UMB**: B 2015a.
Note: The species sometimes appears to grow directly on bark (or on other lichens), but then destroyed remnants of lichen thalli (mostly *Physcia* spp.) can be found in close vicinity.

***Illosporium* Mart.**

Selected literature: Diederich & al. 2024a.

***Illosporium carneum* Fr.**

Syst. Mycol. 3: 259 (1829/1832)

Hosts in Italy: *Peltigera polydactyla*, *P. praetextata*, *P. rufescens**, *Peltigera* sp. (thallus).

PIE: Bresadola & Saccardo 1897: 324 [as *Illosporium roseum* (Schreb.) Mart. on *Peltigera* sp., thallus]; **TAA**: Arnold 1897a: 219 (on *Peltigera polydactyla*, thallus), Lettau 1958: 170 (on *Peltigera praetextata*), Bilovitz & al. 2014b (on *Peltigera rufescens*); **TOS**: Benesperi & al. 2007 (on *Peltigera* sp.).

Note: See under *Pronectria robergei*.

***Intralichen* D. Hawksw. & M.S. Cole**

Selected literature: Diederich 2024c.

Note: In the apothecia and thalli of many lichen specimens, *Intralichen*-like chains of hyphae can be observed and often they could be morphologically assigned to one of the three described species. As nothing is known about the specificity, the respective names should be used only for hosts of the type genus: *Caloplaca* s. lat. spp. (*I. baccisporus*), *Candelariella* spp. (*I. lichenicola*) and *Arthonia* s. lat. spp. or *Opegrapha* spp. (*I. lichenum*).

***Intralichen baccisporus* D. Hawksw. & M.S. Cole**

Fungal Diversity 11: 89 (2002)

Hosts in Italy: *Athallia cerinella*, *Kuettlingeria erythrocarpa*, *Variospora dolomiticola*, *Caloplaca* s. lat. sp. (apothecia).

CAM: Puntillo & Brackel 2017; **EMI**: B 2025; **MOL**: B 2020; **SIC**: B 2008a.

Note: In its wider sense (on *Catillaria nigroclavata*, *Lecidella elaeochroma*, *Physcia adscendens*, *P. biziana*, *P. leptalea*): **ABR:** B 2015a; **CAL**: Brackel & Puntillo 2016; **SIC**: Brackel & Puntillo 2023.

***Intralichen lichenicola* (M.S. Christ. & D. Hawksw.) D. Hawksw. & M.S. Cole**

Fungal Diversity 11: 93 (2002)

Syn.: *Intralichen christiansenii* (D. Hawksw.) D. Hawksw. & M.S. Cole, *Bispora christiansenii* D. Hawksw.

Hosts in Italy: *Candelariella aurella*, *C. xanthostigma* (apothecia).

SIC: B 2008b; **VEN**: Thor & Nascimbene 2007.

Note: in its wider sense (on *Caloplaca variabilis*, *Lecania* sp., *Lecanora carpinea*, *L.* cf. *subrugosa*, *Lecidella elaeochroma*, *Lobaria pulmonaria*, *Pleopsidium chlorophanum*, *Ramalina farinacea*): **CAL**: Puntillo 2011; **MAR**: B 2015a; **SAR**: Nimis & Poelt 1987(as *Trimmatostroma* sp. on *Lecanora rupicola*), Brackel & Berger 2019; **SIC**: van den Boom 1992; **TAA**: Hawksworth 1979a; **TOS**: B 2015a.

***Intralichen lichenum* (Diederich) D. Hawksw. & M.S. Cole agg.**

Fungal Diversity 11: 93 (2002)

Note: In its wider sense (on *Abrothallus teloschistis*, *Anaptychia ciliaris*, *Candelariella xanthostigma*, *Cladonia coniocraea*, *Evernia prunastri*, *Gyalolechia flavorubescens*,

Glaucomaria carpinea, *L. chlarotera*, *Lecidella elaeochroma*, *Lobaria pulmonaria*, *Seirophora villosa*, *Tephromela atra*, *Tremella ramalinae*, *Xanthoria parietina*): **BAS**: B 2011a; **CAL**: Brackel & Puntillo 2016; **LOM**: B 2010d; **MAR**: B 2015a; **SAR**: Brackel & Berger 2019; **SIC**: B 2008b; **TOS**: B 2015a.

***Kalchbrenneriella* Diederich & M.S. Christ**

Selected literature: Diederich & Etayo 2024a.

***Kalchbrenneriella cyanescens* (Kalchbr.) Diederich & M.S. Christ.(*)**

Bryologist 105 (3): 411 (2002)

Hosts in Italy: *Usnea* sp. (thallus).

TAA: Diederich 2002.

***Karschia* Körb.**

Selected literature: Hafellner 1979, Ertz & Diederich 2015.

Karschia epiconcolor* (Bagl. & Carestia) Zopf

Hedwigia 35: 352 (1896).

Bas.: *Buellia sphyridii* var. *epiconcolor* Bagl. & Carestia [Comment. Soc. Crittog. Ital. 2: 288 (1881)].

Hosts in Italy: *Lecanora orbicularis** (as *Placodium concolor* var. *angustatum*, *Lecanora concolor*).

PIE: Baglietto & Carestia 1880*: 288, Jatta 1909–1911: 768 (as *Abrothallus sphyridii*).

Note: Dubious species; according to Hafellner 1979: 214 the type is lost.

***Karschia talcophila* (Ach. ex Flot.) Körb.**

Parerga Lich.: 460 (1865)

Syn.: *Abrothallus talcophilus* (Ach.) Mass., *Buellia talcophila* (Ach.) Körb.; incl. *Karschia talcophila* var. *anziana* Rehm in Rabenh., *Karschia anziana* (Rehm) Vouaux.

Hosts in Italy: *Diploschistes bisporus, D. scruposus* (thallus).

Italy: Jatta 1909–1911: 768 (from many regions but treated in a wide sense: "Ad thallos varios crustaceos ..."). **CAM**: Jatta 1892b: 209 (without host); **LOM**: Anzi 1861–1873, Nr. 494, Rehm 1890: 356, BSM 2006–2015[1)]; **PIE**: Baglietto 1871: 266, Baglietto & Carestia 1880: 287; **SAR**: Nimis & Poelt 1987, Brackel & Berger 2019; **TOS**: Nimis & al. 1990; **SIC**: Jatta 1891, 1909–1911; **TAA**: Kernstock 1891: 737, Hafellner 1979: 181.

[1)] Ad crustam *Zeoræ sordidæ* [det. as *Diploschistes scruposus*] in montibus, et alpibus Bormiensibus, without date, M. Anzi (M-0041932; Anzi, Lich. Rar. Langob. Exs.).

Note: *Karschia talcophila* var. *anziana* is a dubious taxon, according to Hafellner 1979: 213.

***Kiliasia* Hafellner**

Selected literature: Timdal 1991, Nimis 2026.

***Kiliasia episema* (Nyl.) Hafellner**

Opera Bot. 110: 62 (1991)

Syn.: *Toninia episema* (Nyl.) Timdal.

Hosts in Italy: *Circinaria calcarea**, *C. coronata*, *Protoparmeliopsis versicolor* (thallus).

ABR[2]: Nimis & Tretiach 1999; **BAS**[1, 2]: Hafellner 1984, 2006; **CAL**[1, 2]: Timdal 1991, Puntillo 1996; **CAM**[1, 2]: Cufino 1906, Aprile & al. 2003a, Nimis & Tretiach 2004, Garofalo & al. 2010; **EMI**[1, 2]: Avetta 1898, Zanfrognini 1902; **FVG**[1, 2]: Timdal 1991; **LAZ**: Nimis & al. 1987; **LIG**[2]: Hafellner 2006; **LOM**[1, 2]: Anzi 1860; **MAR**[2]: Nimis & Tretiach 1999; **MOL**[2]: Nimis & Tretiach 1999, Caporale & al. 2008; **PIE**[1, 2]: Baglietto & Carestia 1864, 1880, Isocrono & al. 2004; **PUG**[2]: Nimis & Tretiach 1999; **SAR**[1, 2]: Nimis & Poelt 1987, Timdal 1991, BSM 2006–2025, Brackel & Berger 2019; **SIC**: Timdal 1991, van den Boom 1992, Nimis & al. 1994, B 2008b; **TOS**[1, 2]: Baglietto 1871: 267, Hafellner 2006, BSM 2006–2025; **UMB**[2]: Genovesi & Ravera 2001, Ravera & al. 2006.

[1]Nimis 1993, [2]Nimis 2026.

Note: See also Nimis 2026.

***Koordersiella* Höhn.**

Selected literature: Hawksworth & al. 2024b

***Koordersiella insectivora* (Hansf.) D. Hawksw. & O.E. Erikss.**

Syst. Ascomycetum 6: 134 (1987)

Syn.: *Hansfordiellopsis lichenicola* (Batista & Maia) Deighton.

Hosts in Italy: *Gyalectidium caucasicum* (thallus).

CAL: Puntillo 2000, Puntillo & al. 2000.

***Labrocarpon* Etayo & Pérez-Ortega**

Selected literature: Pérez-Ortega & Etayo 2010, Ertz & Diederich 2015.

***Labrocarpon canariense* (D. Hawksw.) Etayo & Pérez-Ortega**

Lichenologist 41: 272 (2010)

Bas.: *Melaspilea canariensis* D. Hawksw.; Syn.: *Karschia talcophila* var. *irregularis* Vouaux in Pitard & Harmand.

Hosts in Italy: *Pertusaria flavicans*, *P. pertusa*, *Pertusaria* sp.(apothecia and thallus).

SAR: Nimis & Poelt 1987, Calatayud & al. 1995, Brackel & Berger 2019; **SIC**: Santesson 1994b, Ottonello & Romano 1997, Ottonello & al. 2011; **TOS:** BSM 2006–2015[1)], (TSB 11017).

[1)] Prov. di Livorno: Isola d'Elba, 3 km E of Capoliveri, Colle di Calagrande, on *Pertusaria* sp., 42°44'N, 10°25'E, 2–5 m alt. NE-exposed coastal rocks, on horizontal and inclined surface, 17.04.1998, D. Triebel & G. Rambold (M-0041926–M-0041931).

Note: See also Nimis 2026

***Laetisaria* Burds.**

Selected literature: Diederich & al. 2022h.

***Laetisaria lichenicola* Diederich, Lawrey & Van den Broeck**

Mycologia 103: 530 (2011)

Hosts in Italy: *Physcia adscendens**, *P. leptalea*, *P. tenella** (thallus).

EMI: Munzi & al. 2020, B 2025; **SAR**: Brackel & Berger 2019; **TOS**: B 2015a, 2025.

***Laeviomyces* D. Hawksw.**

Selected literature: Hawksworth 1975, Zhurbenko & Otte 2012.

***Laeviomyces pertusariicola* (Nyl.) D. Hawksw.**

Bull. Brit. Mus. (Nat. Hist.), Bot. 9 (1): 29 (1981)

Syn.: *Lichenodiplis pertusariicola* (Nyl.) Diederich.

Hosts in Italy: *Pertusaria pertusa* (thallus and apothecia).

BAS: B 2011a; **SAR**: Brackel & Berger 2019; **CAM**: B 2021.

***Lambinonia* Sérus. & Diederich**

Selected literature: Sérusiaux & Diederich 2005, Diederich & Sérusiaux 2024

***Lambinonia strigulae* (Elenkin & Woron.) Sérus. & Diederich**

Lichenologist 37: 500 (2005).

Hosts in Italy: *Strigula buxi*.

CAM: Sérusiaux & Diederich 2005.

***Lasiosphaeriopsis* D. Hawksw. & Sivan.**

Selected literature: Hawksworth 1980b, Pérez-Ortega & Halıcı 2008.

Lasiosphaeriopsis supersparsa* (Arnold ex Zopf) Triebel

Biblioth. Lichenol. 35: 148 (1989)

Bas.: *Phaeospora supersparsa* Arnold ex Zopf [Hedwigia 35: 338 (1896)].

Hosts in Italy: *Porpidia zeoroides** (thallus).

TAA: Arnold 1897a: 217, Triebel 1989: 148, BSM 2006–2025[1)].

[1)] Campiler und Seisser Schichten ober dem Rollepasse. Paneveggio. Tirol, without date, F. Arnold (M-0041955 – holotype).

***Lecanora* Ach.**

Selected literature: Alstrup & Hawksworth 1990.

***Lecanora lecanoricola* (Alstrup, D. Hawksw. & R. Sant.) Rambold & Triebel**

Biblioth. Lichenol. 48: 168 (1992)

Bas.: *Lecidella lecanoricola* Alstrup, D. Hawksw. & R. Sant.

Hosts in Italy: no host mentioned.

TAA: Nascimbene & al. 2022.

***Leciographa* A. Massal.**

Note: Most of the species of the genus were transferred to other genera, e.g. *Opegrapha* and *Phacographa*.

Leciographa furfuracea* (Anzi) Rehm

Syll. Fung. 18: 181 (1906)

Bas.: *Celidium furfuraceum* Anzi [Catalogus lichenum quos in provincia sondriensi et circa Novum-Comum collegit et in ordinem systematicum digessit: 116 (1860)]; Syn.: *Arthonia furfuracea* (Anzi) Jatta.

Hosts in Italy: *Farnoldia micropsis** (as *Lecidea nivalis)*, *Glaucomaria rupicola* (as *Lecanora/Zeora sordida*), *Rhizocarpon petraeum* (thallus).

LOM: Anzi 1860*: 116, Jatta 1909–1911: 761, Triebel 1989; **VEN**: Saccardo 1894.

Note: A poorly known taxon, possibly belonging to *Opegrapha* s. lat. (Diederich & al. 2018) or to *Dactylospora* (Triebel 1989).

***Libertiella* Speg. & Roum.**

Selected literature: Hawksworth 1981a, Hawksworth & Miądlikowska 1997a

***Libertiella fennica* Alstrup**

Mycol. Res. 101 (9): 1129 (1997)

Hosts in Italy: *Peltigera hymenina* (thallus).

SIC: Alstrup 2004.

***Libertiella malmedyensis* Speg. & Roum.**

Rev. Mycol. (Toulouse) 2 (1): 22 (1880)

Hosts in Italy: *Peltigera didactyla** (thallus).

TAA: B 2013b.

Note: The taxon most probably represents the anamorph of *Scutula epiblastematica*.

***Lichenochora* Hafellner**

Selected literature: Hafellner 1989, Etayo & Navarro-Rosinés 2008.

Note: See also the dubious species in the second list.

Lichenochora aprica* Hafellner & Nik. Hoffm.

Biblioth. Lichenol 77: 50 (2000)

Hosts in Italy: *Circinaria calcarea*, *Aspicilia* s. lat. sp.* (thallus).

SAR: Hoffmann & Hafellner 2000*; **SIC**: Hoffmann & Hafellner 2000.

***Lichenochora coarctatae* (B. de Lesd.) Hafellner & F. Berger**

Herzogia 14: 32 (2000)

Hosts in Italy: *Trapelia coarctata** (thallus).

TOS: B 2015a.

***Lichenochora heppiae* Cl. Roux**

Bull Soc. Linn. Provence 45: 533 (1994)

Hosts in Italy: *Heppia lutosa** (thallus).

PIE: Roux & Triebel 1994: 534.

***Lichenochora lepidiotae* (Anzi) Etayo & Nav.-Ros.**
Rev. Catalan. Micol. 30: 29 (2008)
Hosts in Italy: *Fuscopannaria praetermissa** (as *Pannaria lepidiota*) (thallus).
LOM: Anzi 1868a: 180, Etayo & Navarro-Rosinés 2008.

***Lichenochora obscuroides* (Linds.) Triebel & Rambold**
Biblioth. Lichenol. 48: 168 (1992)
Hosts in Italy: *Phaeophyscia orbicularis** (thallus).
CAL: Brackel & Puntillo 2016; **PUG**: B 2011; **TOS**: B 2015.
Note: *L. obscuroides* is restricted to hosts of the genus *Phaeophyscia*; records on *Physcia* belong to other species, e.g. *Lichenochora physciicola*.

***Lichenochora physciicola* (Ihlen & R. Sant.) Hafellner**
Herzogia 25: 56 (2012)
Hosts in Italy: *Physcia adscendens, P. tenella* (thallus).
EMI: B 2025; **SAR**: Brackel & Berger 2019. **SIC**: B 2008a (as *L. obscuroides* on *Physcia tenella*), B 2008b (as *L. obscuroides* on *P. adscendens*); **TOS**: B 2025.

***Lichenochora polycoccoides* Hafellner & R. Sant.**
Nova Hedwigia 48: 363 (1989)
Hosts in Italy: *Physcia stellaris* (thallus).
LAZ: B 2015a.

***Lichenochora thorii* Zhurbenko**
Nova Hedwigia 87: 510 (2008)
Hosts in Italy: *Acarospora moenium** (thallus).
LOM: Zhurbenko 2008d.

***Lichenochora weillii* (Werner) Hafellner & R. Sant.**
Nova Hedwigia 48: 369 (1989)
Hosts in Italy: *Physcia adscendens*, *Physconia enteroxantha*, *P. grisea*, *P. muscigena*, *Physconia* sp. (thallus).
ABR: van den Boom & Brand 2008a; **EMI**: B 2025; **MAR**: B 2015a; **SAR**: Brackel & Berger 2019.

***Lichenochora xanthoriae* Triebel & Rambold**
Mycotaxon 42: 277 (1991)
Hosts in Italy: *Rusavskia elegans** (thallus).
SAR: Brackel & Berger 2019.

***Lichenoconium* Petr. & Syd.**
Selected literature: Hawksworth 1977a, Cole & Hawksworth 2004, Lawrey & al. 2011.

***Lichenoconium cargillianum* (Linds.) D. Hawksw.**
Persoonia 9: 172 (1977)

Hosts in Italy: *Cladonia foliacea* (as *C. convoluta*), *C. subrangiformis*, *Evernia prunastri*, *Hypogymnia farinacea*, *H. tubulosa* (thallus, basal squamules, podetia).

BAS: B 2011a; **SAR**: Brackel & Berger 2019; **TOS**: B 2015a.

***Lichenoconium erodens* M.S. Christ. & D. Hawksw.**

Persoonia 9: 173 (1977)

Hosts in Italy: *Bryoria fuscescens*, *B. nadvornikiana*, *Cetraria islandica*, *C. pinastri*, *Cladonia coniocraea*, *C. squamosa*, *Diploicia canescens*, *Evernia prunastri*, *Flavoparmelia caperata*, *Glaucomaria carpinea*, *Hypocenomyce scalaris*, *Hypogymnia physodes**, *H. tubulosa*, *Lecanora chlarotera*, *Lecanora* sp., *Lepra albescens*, *Melanelixia glabra*, *M. subaurifera*, *Melanohalea elegantula*, *Nephromopsis chlorophylla*, *Ochrolechia* cf. *androgyna*, *Parmelia saxatilis*, *P. submontana*, *P. sulcata*, *P. saxatilis*, *Parmelina pastillifera*, *P. quercina*, *P. tiliacea*, *Parmotrema hypoleucinum*, *P. perlatum*, *P. reticulatum*, *Pertusaria pertusa*, *Physcia adscendens*, *P. aipolia*, *P. tenella*, *Physcia* sp., *Physconia servitii*, *Platismatia glauca*, *Pleurosticta acetabulum*, *Pseudevernia furfuracea*, *Punctelia jeckeri*, *P. subrudecta*, *Ramalina calicaris*, *R. farinacea*, *R. fastigiata*, *Ramalina* sp., *Tremella hypogymniae*, *Xanthoparmelia conspersa* (thallus, rarely apothecia).

ABR: B 2015a; **BAS**: B 2011a; **CAL**: Brackel & Puntillo 2016; **CAM**: B 2021; **EMI**: Tretiach & al. 2008, B 2015a, 2025; **FVG**: B 2013b; **LAZ**: B 2015a; **LIG**: B 2025; **LOM**: B 2013b; **MAR**: B 2015a, 2025; **MOL**: B 2020; **PUG**: B 2011a; **SAR**: Brackel & Berger 2019; **SIC**: B 2008a,b; **TOS**: B 2008c, 2015a, 2025; **TAA**: B 2013b; **UMB**: B 2015a, 2025; **VEN**: B 2013b.

***Lichenoconium lecanorae* (Jaap) D. Hawksw.**

Bull. Brit. Mus. (Nat. Hist.), Bot. 6: 183 (1979)

Hosts in Italy: *Glaucomaria carpinea*, *Hypogymnia physodes*, *Lecanora chlarotera*, *L. horiza*, *L. pulicaris*, *L. varia*, *Lecanora* sp., *Melanelixia glabra*, *Melanohalea exasperata*, *Parmelia saxatilis*, *Parmelina quercina*, *P. tiliacea*, *Punctelia subrudecta*, *Rhizoplaca chrysoleuca*, *Squamarina lentigera*, *Tremella hypogymniae*, *Xanthoparmelia conspersa*, *X. pulla*, *Xanthoria parietina* (thallus and apothecia).

ABR: Nimis & Tretiach 1999, B 2015a; **BAS**: B 2011a, Brackel & Puntillo 2023; **CAL**: Puntillo 2011, Brackel & Puntillo 2016; **CAM**: B 2021; **EMI**: B 2025; **LAZ**: B 2015a; **MOL**: B 2015a, 2020; **PUG**: B 2011a, Nimis & Tretiach 1999; **SAR**: Nimis & Poelt 1987, Brackel & Berger 2019; **SIC**: B 2008a,b; **TOS**: B 2015a; **TAA**: Hawksworth 1977a, 1981a.

***Lichenoconium lichenicola* (P. Karsten) Petr. & Syd.**

Beih. Repert. nov. Spec. Regni veg. 42: 432 (1927)

Hosts in Italy: *Physcia adscendens*, *P. biziana*, *P. tenella* (thallus).

BAS: B 2011a; **CAL**: Brackel & Puntillo 2016; **EMI**: B 2025; **UMB**: B 2025.

***Lichenoconium pyxidatae* (Oudem.) Petr. & Syd.**

Beih. Repert. nov. Spec. Regni veg. 42: 435 (1927)

Hosts in Italy: *Cladonia cariosa*, *C.* cf. *coniocraea*, *C. digitata, C. foliacea* (as *C. convoluta*), *C. furcata*, *C. gracilis*, *C. pyxidata*, *C. rangiformis*, *Cladonia* sp. (basal squamules and podetia).

CAM: B 2021; **LOM**: B 2010d; **MOL**: B 2020; **PUG**: B 2011a; **SAR**: Brackel & Berger 2019; **TOS**: B 2015a; **TAA**: B 2013b; **UMB**: B 2015a, 2025.

***Lichenoconium reichlingii* Diederich**

Lejeunia 119: 21 (1986)

Hosts in Italy: *Ramalina calicaris*, *R. farinacea*, *R. fastigiata* (thallus).

BAS: B 2011a; **CAL**: Brackel & Puntillo 2016; **MOL**: B 2020.

Lichenoconium usneae* (Anzi) D. Hawksw.

Persoonia 9: 185 (1977)

Bas.: *Epicoccum usneae* Anzi* [Analecta 178 (1868)]

Hosts in Italy: *Cetraria islandica*, *Cladonia coniocraea*, *C. foliacea* (as *C. convoluta*), *Evernia prunastri*, *Flavoparmelia caperata*, *Gyalolechia flavorubescens*, *Melanelixia glabra*, *Melanohalea exasperata*, *Parmelia saxatilis*, *P. sulcata*, *Parmotrema perlatum*, *Pertusaria pertusa*, *Physcia aipolia*, *P. leptalea*, *P. tenella*, *Pseudevernia furfuracea*, *Ramalina farinacea*, *R. fastigiata*, *R. fraxinea*, *Ramalina* sp., *Seirophora villosa*, *Xanthoria parietina*, *Usnea dasypoga*, *Usnea* spp.* (thallus, soralia, ascomatal warts and apothecia).

ABR: Nimis & Tretiach 1999, B 2015a; **BAS**: B 2011a; **CAL**: Brackel & Puntillo 2016, 2023; **CAM**: B 2021; **LAZ**: B 2015a; **LIG**: B 2025; **LOM**: Anzi 1868a: 178, 1861–1873: № 523, Hawksworth 1977a, B 2013b; **MOL**: B 2020; **PIE**: BSM 2006–2015; **PUG**: B 2011a; **SAR**: Brackel & Berger 2019; **SIC**: B 2008a; **TOS**: B 2015a, 2025; **TAA**: Anzi 1861–1873, Arnold 1897a: 217, Hawksworth 1977a, 1981a, BSM 2006–2015, Brackel in prep.; **UMB**: B 2025.

***Lichenoconium xanthoriae* M.S. Christ.**

Friesia 5: 212 (1956)

Hosts in Italy: *Melanohalea exasperata*, *Physcia leptalea*, *Xanthoria parietina* (thallus and apothecia).

ABR: B 2015a; **CAL**: Brackel & Puntillo 2016; **MAR**: B 2015a; **SAR**: Brackel & Berger 2019; **SIC**: B 2008b.

***Lichenodiplis* Dyko & D. Hawksw.**

Selected literature: Hawksworth & Dyko 1979, Diederich 2003.

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

Lichenologist 11: 52 (1979)

Hosts in Italy: *Athallia alnetorum*, *A. cerinella*, *Blastenia crenularia*, *Caloplaca cerina**, *C. cerinella*, *C. cerinelloides*, *Caloplaca* s. lat. sp., *Candelariella xanthostigma*, *Fellhanera* cf. *subtilis*, *Gyalolechia flavorubescens* var. *quercina*, *G. marmorata*, *Lecanora* cf. *carpinea*, *Ochrolechia subviridis*, *Physcia stellaris*, *Tephromela atra*, *Xanthoria calcicola* (thallus and apothecia).

ABR: B 2015a; **BAS**: B 2011a; **CAL**: Puntillo 2011, Brackel & Puntillo 2016; **CAM**: Puntillo & Brackel 2017, B 2021; **EMI**: B 2025; **LAZ**: B 2015a; **MAR**: B 2015a, 2025; **SAR**: Brackel & Berger 2019; **SIC**: Nimis & al. 1994, B 2008a,b; **TOS**: B 2015a; **UMB**: B 2015a.

***Lichenodiplis lecanoricola* (M.S. Cole & D. Hawksw.) Diederich**
Herzogia 16: 61 (2003)
Hosts in Italy: *Lecanora chlarotera* (apothecia and thallus).
BAS: B 2011a; **CAL**: Brackel & Puntillo 2016; **SIC**: B 2011a.

***Lichenodiplis rinodinicola* Kocourk. & K. Knudsen**
Opuscula Philolichenum 7: 29 (2009)
Hosts in Italy: *Rinodina sophodes* (apothecia).
PUG: B 2011a.
Note: An illustrated description is given in B 2011a.

***Lichenopeltella* Höhn.**
Selected literature: Hawksworth 1980a, Aptroot & al. 1997a, Pérez-Ortega & Spribille 2009.

Lichenopeltella cetrariae* (Bres.) Höhn.
Ber. Deutsch. Bot. Ges. 37(2): 111 (1919)
Bas.: *Microthyrium cetrariae* Bres. [Malpighia 11(6-8): 300 (1897)]
Hosts in Italy: *Cetraria islandica** (thallus).
Northern Italy (without site): Keissler 1930: 272. **PIE**: Bresadola & Saccardo 1897*: 300.

Lichenopeltella lecanoricola* Brackel ad int.
Borziana 2: 57 (2021)
Hosts in Italy: *Lecanora horiza** (thallus).
CAM: B 2021*.
Note: An illustrated provisional description is given in B 2021.

***Lichenopeltella maculans* (Zopf) Höhn.**
Ber. Deutsch. Bot. Ges. 37: 111 (1919)
Hosts in Italy: *Umbilicaria freyi* (thallus).
CAL: Hafellner 2021a.

***Lichenopeltella peltigericola* (D. Hawksw.) R. Sant.**
Lich. Lichenicol. Fungi Swed. Norw.: 131 (1993)
Hosts in Italy: *Peltigera degenii*, *P. horizontalis*, *P. leucophlebia*, *P. praetextata* (thallus, rhizines).
ABR: B 2015a; **LOM**: B 2010d; **VEN**: B 2013b.

***Lichenopeltella ramalinae* Etayo & Diederich**
Biblioth. Lichenol. 64: 99 (1997)
Hosts in Italy: *Ramalina farinacea* (thallus).
CAL: Brackel & Puntillo 2016; **CAM**: B 2021; **LAZ**: B 2015a; **MOL**: B 2020; **SAR**: Brackel & Berger 2019; **SIC**: B 2008b; **VEN**: B 2013b.

***Lichenopeltella uncialicola* Brackel**
Herzogia 23: 98 (2010)

Hosts in Italy: *Cladonia rangiferina* (podetia).
TAA: B 2013b.

***Lichenopuccinia* D. Hawksw. & Hafellner**
Selected literature: Hawksworth 1984.

***Lichenopuccinia poeltii* D. Hawksw. & Hafellner**
Nova Hedwigia Beih. 79: 374 (1984)
Hosts in Italy: *Parmelia sulcata** (thallus).
TOS: B 2015a.

***Lichenosticta* Zopf**
Selected literature: Hawksworth 1981a.

***Lichenosticta alcicorniaria* (Linds.) D. Hawksw.**
Lichenologist 12: 107 (1980)
Hosts in Italy: *Cladonia arbuscula*, *C. coniocraea*, *C. symphycarpia* (basal squamules, podetia).
TOS: B 2015a, 2025; **TAA**: Hawksworth 1981a.

***Lichenosticta lecanorae* (Vouaux) Brackel & Zhurb.**
Herzogia 28: 773 (2015)
Bas.: *Dendrophoma lecanorae* Vouaux.
Hosts in Italy: *Straminella conizaeoides** (thallus).
SIC: B 2008a, Zhurbenko & al. 2015.
Note: The specimen from Sicilia represents the neotype of the species; a thorough description of the species is given by Zhurbenko & al. 2015.

***Lichenostigma* Hafellner**
Selected literature: Hafellner 1982b, Calatayud & al. 2002, Pérez-Ortega & Calatayud 2009 (key for *Lichenostigma*), Fernández-Brime & al. 2010 (key for *Lichenogramma*), Berger & Brackel 2011 (table for *Phaeosporobolus*), Ertz & al. 2013, Diederich & Ertz 2024.
Note: In its current circumscription the genus *Lichenostigma* heterogeneous. In its strict sense, *Lichenostigma* has a *Phaeosporobolus* anamorph, cellular division occurs by budding (except for the ascospores), and the ascomata are not connected by hyphal strands. The remaining taxa may belong to *Lichenothelia* or related, possibly undescribed genera.

***Lichenostigma alpinum* (R. Sant., Alstrup & D. Hawksw.) Ertz & Diederich**
Fungal Diversity 66: 128 (2014)
Bas.: *Phaeosporobolus alpinus* R. Sant.
Hosts in Italy: *Diploicia canescens*, *Glaucomaria carpinea*, *Lepra albescens*, *L. amara*, *Ochrolechia alboflavescens*, *O.* cf. *microstictoides*, *O. pallescens*, *Ochrolechia* sp., *Pertusaria pertusa*, *Pertusaria* s. lat. sp., *Ramboldia lusitanica* (thallus, soralia and ascomatal warts).

ABR: B 2015a; **BAS**: B 2011a; **CAL**: Brackel & Puntillo 2016; **CAM**: B 2021; **EMI**: B 2015a, 2025; **LIG**: B 2025; **MAR**: B 2025; **MOL**: B 2020; **PUG**: B 2011a; **SAR**: B 2011a, Brackel & Berger 2019; **SIC**: B 2008b; **TOS**: B 2015a, 2025; **VEN**: B 2013b.

Note: All Italian records refer to the *Phaeosporobolus* anamorph; the teleomorph is extremely rare (Zhurbenko 2024).

***Lichenostigma chlaroterae* (Berger & Brackel) Ertz & Diederich**

Fungal Diversity (2013)

Bas.: *Phaeosporobolus chlaroterae* Berger & Brackel (anamorph).

Hosts in Italy: *Glaucomaria carpinea*, *Lecanora chlarotera**, *Stramiella varia* (thallus and apothecia).

ABR: B 2015a; **CAL**: Brackel & Puntillo 2016, Brackel & Puntillo 2023; **EMI**: B 2025; **LAZ**: B 2015a.

Note: All Italian finds as the *Phaeosporobolus* anamorph.

***Lichenostigma cosmopolites* Hafellner &Calatayud**

Mycotaxon 72: 108 (1999)

Hosts in Italy: *Xanthoparmelia conspersa*, *X. protomatrae*, *X. stenophylla*, *X. tinctina** (thallus).

CAL: Brackel & Puntillo 2016; **CAM**: B 2021; **EMI**: B 2025; **LIG**: B 2025; **LOM**: B 2010d; **SAR**: Nimis & Poelt 1987 as *Echinothecium reticulatum* on *Parmelia conspersa*, Brackel & Berger 2019; **SIC**: B 2008a,b; **TOS**: Hafellner & Calatayud 1999, B 2015a, Munzi & al. 2019; **TAA**: Lettau 1958: 149 (as *Echinothecium reticulatum* on *Xanthoparmelia stenophylla*), Hafellner & Calatayud 1999, B 2013b, Brackel in prep.

***Lichenostigma diploiciae* Calatayud, Nav.-Ros. & Hafellner**

Mycol. Res. 106: 1231 (2002)

Hosts in Italy: *Diploicia subcanescens** (thallus).

TOS: B 2015a.

***Lichenostigma elongatum* Nav.-Ros. & Hafellner**

Mycotaxon 57: 213 (1996)

Hosts in Italy: *Aspicilia cinerea*, *Aspiciliella intermutans*, *Circinaria caesiocinerea*, *C. calcarea*, *C. contorta*, *Lobothallia radiosa**, *Sagedia zonata*, *Aspicilia* s. lat. sp. (thallus and apothecia). – dubious: *Rinodina* sp. (Puntillo 2011, det. P. Diederich).

ABR: Nimis & Tretiach 1999; ¿**CAL**: Puntillo 2011?; **CAM**: B 2021; **EMI**: Navarro-Rosinés & Hafellner 1996, B 2025; **FVG**: Navarro-Rosinés & Hafellner 1996; **LIG**: Navarro-Rosinés & Hafellner 1996; **LOM**: B 2013b; **MOL**: B 2020; **PIE:** Matteucci & al. 2019, Brackel & Isocrono in prep.; **SAR**: Brackel & Berger 2019; **SIC**: Navarro-Rosinés & Hafellner 1996, B 2008a,b; **TOS**: B 2015a, Munzi & al. 2019, B 2025; **TAA**: Navarro-Rosinés & Hafellner 1996, B 2013b, new record see below; **UMB**: B 2025.

New record: **TAA**: Prov. di Trento, Vette Feltrine, Val Noana, Rif. Fonteghi, "Vaticano", on schistose rock in dolomitic wall, on *Sagedia zonata*. (thallus and apothecial margin), 46°08'06.9''N, 11°52'40.5''E, 1153 m, 05.07.2025, leg. H. Oberhollenzer, det. W. v. Brackel (STU, Oberhollenzer 7293).

***Lichenostigma epipolinum* Nav.-Ros., Calatayud & Hafellner**

Mycol. Res. 106: 1233 (2002)

Hosts in Italy: *Diplotomma alboatrum** (= *D. epipolium*), *D. hedinii*, *D. venustum* (thallus).

BAS: B 2011a; **TOS**: Calatayud & al. 2002; **FVG**: Calatayud & al. 2002; **LIG**: Calatayud & al. 2002, B 2025.

***Lichenostigma epirupestre* Pérez-Ortega & Calat.**

Mycotaxon 107: 190 (2009)

Hosts in Italy: *Pertusaria pertusa* var. *rupestris** (thallus).

BAS: Brackel & Puntillo 2023; **SAR**: Brackel & Berger 2019.

***Lichenostigma episquamarinae* (Etayo) Poumarat & Cl. Roux**

Bull. Soc. linn. Provence 75: 191 (2024)

Bas.: *Sphaerellothecium episquamarinae* Etayo

Hosts in Italy: *Squamarina cartilaginea*.

SIC: BSM 2006–2025[1)].

[1)] Prov. Trapani, Isola Marettimo, Monte Falcone, Gipfelplateau, alt. c. 680–686 m, auf *Squamarina cartilaginea*, 20.04.1994, M. Erben (M-0044226).

***Lichenostigma maureri* Hafellner**

Herzogia 6: 301 (1982)

Bas.: *Phaeosporobolus usneae* D. Hawksw. & Hafellner.

Hosts in Italy: *Anaptychia ciliaris*, *Bryoria fuscescens*, *B. nadvornikiana*, *Cetraria pinastri*, *Evernia prunastri*, *Glaucomaria carpinea*, *Hypogymnia physodes, H. tubulosa*, *Lecanora chlarotera*, *Parmelia sulcata*, *Parmelina pastillifera*, *Parmotrema hypoleucinum*, *Pseudevernia furfuracea*, *Ramalina farinacea*, *R. fastigiata*, *R. fraxinea*, *Ramalina sp.*, *Usnea barbata*, *U. dasypoga*, *Usnea* sp.(thallus, soralia and apothecia).

BAS: B 2011a, Berger & Brackel 2011; **CAL**: Brackel & Puntillo 2016, new record below; **EMI**: B 2025; **LAZ**: B 2015a; **LOM**: Hafellner 1982b, B 2013b; **PIE**: BSM 2006–2015; **PUG**: B 2011a; **SIC**: new record below; **TOS**: B 2015a; **TAA**: Hafellner 1982b, Thor 1985, Hawksworth & Hafellner 1986, BSM 2006–2015[1)].

[1)] Südtirol: Mendelgebirge SW von Bozen, Mte. Roën, Lärchen-Fichtenwald auf der N-Seite, ca. 1850 m, auf *Pseudevernia furfuracea*, 10.1976, J. Hafellner (M-0042045 – paratypus); Südtiroler Dolomiten: Val di Fassa, Val San Nicolo E von Pozza, Alpe Forca, ca. 2000 m; an *Larix*, auf *P. furfuracea*, 10.04.1982, J. Hafellner (M-0042048).

New records: **CAL**: Prov. di Reggio di Calabria, Aspromonte, Nardello, on *Fagus sylvatica*, on *Usnea barbata* (thallus), 38°09’10.1’’N, 15°54’02.6’’E, 1820 m, 19.08.2009, leg. D. Puntillo, det. W. v. Brackel (CLU 18217). **SIC**: Prov. di Messina, Monti Nebrodi, road from Caronia to Capizzi (SP 168 km 15/II), oak forest, on *Quercus cerris*, 865 m, 37°58’01.6’’N, 14°29’14.8’’E, 15.08.2007, W. & G. v. Brackel (herb. Brackel 9064; loc. 38 in Brackel 2008).

Note: The teleomorph, similar in appearance, is sometimes found intermixed with the conidiomata of the anamorph.

***Lichenostigma rouxii* Calatayud, Nav.-Ros. & Hafellner**
Mycol. Res. 106: 1237 (2002)
Hosts in Italy: *Squamarina stella-petraea** (thallus).
MAR: B 2025.

***Lichenostigma rupicolae* Fdez.-Brime & Nav.-Ros.**
Lichenologist 42: 241 (2010)
Hosts in Italy: *Lepra corallina*, *L. leucosora*, *Pertusaria rupicola** (thallus).
BAS: Brackel & Puntillo 2023; **LIG**: B 2025; **SAR**: Brackel & Berger 2019.

***Lichenothelia* D. Hawksw.**
Selected literature: Hawksworth 1981b, Henssen 1987, Ertz & al. 2013.
Note: See also the facultative lichenicolous species in the next chapter.

***Lichenothelia rugosa* (G. Thor) Ertz & Diederich**
Fungal Diversity 66: 135 (2014)
Bas.: *Lichenostigma rugosum* Thor.
Hosts in Italy: *Diploschistes muscorum, D. scruposus*, *Diploschistes* sp. (thallus and apothecia).
CAL: Brackel & Puntillo 2016; **LAZ**: B 2015a; **LIG**: Thor 1985; **MOL**: B 2020; **SAR**: Brackel & Berger 2019; **SIC**: Nimis et al 1994, B 2008b; **TOS**: Munzi & al. 2019; **TAA**: B 2013b.

***Lichenotubeufia* Etayo**
Selected literature: Etayo 2002, 2017, Zhurbenko 2022a.

Lichenotubeufia calabrica* Brackel
Borziana 4: 11 (2023)
Hosts in Italy: *Parmelina* sp.* (thallus).
CAL: Brackel & Puntillo 2023*.

***Lichenotubeufia heterodermiae* (Etayo) Etayo**
Opera Lilloana 50: 259 (2017)
Bas.: *Tubeufia heterodermiae* Etayo
Hosts in Italy: *Physcia aipolia*, *P. leptalea* (thallus).
CAL: Brackel & Puntillo 2016; **LAZ**: B 2015a.

***Llanorella* Alstrup & Olech ex Diederich & Brackel**
Selected literature: Diederich & Brackel 2024*.

***Llanorella ramalinae* Alstrup & Olech ex Diederich & Brackel**
Flora of Lichenicolous Fungi 2: 273 (2024)
Hosts in Italy: *Ramalina canariensis*, *R. farinacea*, *R. fastigiata* (thallus).
CAM: Diederich & Brackel 2024*; **SAR**: Diederich & Brackel 2024*; **TOS**: B 2025.

***Llimoniella* Hafellner & Nav.-Ros.**

Selected literature: Hafellner & Navarro-Rosinés 1993, Diederich & Etayo 2000, Diederich & al. 2010a.

***Llimoniella phaeophysciae* Diederich, Ertz & Etayo**

Lichenologist 42: 254 (2010)

Hosts in Italy: *Phaeophyscia ciliata*, *P. orbicularis* (thallus).

CAL: Diederich & al. 2010a; **MAR**: B 2025.

***Marchandiomyces* Diederich & D. Hawksw.**

Selected literature: Diederich & al. 2022h.

***Marchandiomyces corallinus* (Roberge) Diederich & D. Hawksw.**

Mycotaxon 37: 312 (1990)

Hosts in Italy: *Flavoparmelia caperata*, *Melanelixia glabra*, *Parmelia saxatilis*, *P. sulcata*, *Parmelina pastillifera*, *P. quercina*, *Parmotrema perlatum*, *Pertusaria pertusa*, *Physcia adscendens*, *P. aipolia*, *P. leptalea*, *P. stellaris*, *P. tenella**, *Physconia distorta*, *P. grisea*, *Punctelia subrudecta*, *Tephromela atra*, *Xanthomendoza fallax*, *Xanthoria parietina* (thallus).

ABR: B 2015a; **BAS**: B 2011a; **CAL**: Brackel & Puntillo 2016; **CAM**: B 2021; **EMI**: Munzi & al. 2020; B 2025; **LAZ**: B 2015a; **LIG**: B 2025; **MAR**: B 2015a, 2025; **PUG**: B 2011a; **SAR**: Brackel & Berger 2019; **TOS**: B 2015a, 2025; **TAA**: B 2013b; **UMB**: B 2015a, 2025.

***Merismatium* Zopf**

Selected literature: Roux & al. 2002, Hafellner 2011.

***Merismatium decolorans* (Rehm ex Arnold) Triebel**

Biblioth. Lichenol. 35: 182 (1989)

Hosts in Italy: *Cladonia foliacea* (p.p. as *C. convoluta*), *C. pyxidata* f. *pocillum*, *C. symphycarpia* (basal squamules).

ABR: B 2015a, Gheza & al. 2021; **LIG**: B 2025; **MOL**: B 2020; **TOS**: B 2025.

***Merismatium heterophractum* (Nyl.) Vouaux**

Bull. Soc. Mycol. France 29: 78 (1913)

Hosts in Italy: *Cladonia pyxidata*, *C. rangiformis*, *Cladonia* sp., *Diploschistes muscorum* overtaking *Cladonia pyxidata* f. *pocillum* (basal squamules).

ABR: B 2015a; **CAL**: Brackel & Puntillo 2016; **LAZ**: B 2015a; **PIE**: Brackel & Isocrono in prep.; **TOS**: B 2015a; **UMB**: B 2015a.

***Merismatium nigritellum* (Nyl.) Vouaux**

Bull. Soc. Mycol. France 29: 77 (1913)

Syn.: *Merismatium lopadii* (Arnold) Zopf, *Polyblastia lopadii* Arnold, ¿*Celidium lopadii* Anzi?, ¿*Leciographa urceolata* var. *lopadii* (Anzi) Sacc. & D. Sacc.?

Hosts in Italy: *Degelia plumbea*, *Lempholemma polyanthes*, *Lopadium pezizoideum**, *Rinodina exigua* (thallus).

BAS: B 2011a; **CAL**: Puntillo 2011; **FVG**: B 2013b; **LOM**: Anzi 1868a: 177, Jatta 1909–1911: 760, Triebel 1989.

Note: It is not yet clear whether *Celidium lopadii* Anzi is conspecific with the species (see Hafellner 2011).

***Merismatium peregrinum* (Flot.) Triebel**

Biblioth. Lichenol. 38: 166 (1990)

Syn.: *Phaeospora peregrina* (Flot.) Arnold, *Xenosphaeria peregrina* (Flot.) Jatta

Hosts in Italy: *Rimularia badioatra**, *R. gibbosa* (thallus).

PIE: Baglietto & Carestia 1880: 353, Jatta 1909–1911: 844; **TAA**: Arnold 1879a: 355, 1880b: 101, 1887a: 94, Hertel & Rambold 1990.

***Micarea* Fr.**

Selected literature: Rambold & Triebel 1992, Cannon & al. 2022.

***Micarea inquinans* (Tul.) Coppins**

Biblioth. Lichenol. 48: 169 (1992)

Hosts in Italy: *Dibaeis baeomyces* (thallus).

FVG: Tretiach & Hafellner 2000; **TAA**: Hafellner 1994b.

***Microcalicium* Vain.**

Selected literature: Tibell 1978, Giavarini 2009.

***Microcalicium arenarium* (Hampe ex A. Massal.) Tibell**

Bot. Not. 131: 237 (1978)

Bas.: *Cyphelium arenarium* Hampe ex A. Massal. [Miscell. Lichenol.: 20 (1856)]; Syn.: *Calicium citrinum* (Leight.) Nyl.

Hosts in Italy: *Psilolechia lucida* (thallus).

CAL: Vězda "Lich. Sel. Exs. 2412", Puntillo 1996, Puntillo & Puntillo 2009, Brackel & Puntillo 2016; **PIE**: Baglietto & Carestia 1864, 1880: 247, Jatta 1909–1911: 129, Isocrono & al. 2004, Puntillo & Puntillo 2009; **TAA**: Arnold 1887a: 88, Dalla Torre & Sarnthein 1905, Schade 1917, Tibell 1978, BSM 2006–2025[1)], Puntillo & Puntillo 2009; **UMB**: Genovesi & al. 2001, Ravera & al. 2006, Puntillo & Puntillo 2009.

[1)] an der Unterfläche einiger Syenitblöcke am Fuße der Margola bei Predazzo in Südtirol, 27.07.1884, H. Lojka (M-0042217, M-0042218). – Syenit am Fuße der Margola. Predazzo in Südtirol, 08.1880, 07.1884, F. Arnold (M-0042222, M-0042224).

***Microcalicium disseminatum* (Ach.) Vain.**

Acta Soc. Fauna Flora Fennica 57: 77 (1927)

Syn.: *Microcalicium subpedicellatum* (Schaer.) Tibell

Hosts in Italy: lichenicolous on Caliciales, especially on *Chaenotheca/Coniocybe* species, rarely on free-living algae; *Coniocybe furfuracea* (thallus).

FVG[#]: Tretiach 1993; **LOM**[#]; **TAA**[#]: Arnold 1887: 140, Dalla Torre & Sarnthein 1905, Tibell 1978b, Hawksworth 1981a, Nascimbene 2006c, 2008b, 2013, 2014, Nascimbene & al. 2007b, 2010, 2014, Nascimbene & Marini 2015, BSM 2006–2025[1)]; **VEN**[#]: Anzi "Lich. Ven. 113", Tibell 1978b, Nascimbene 2008c.

[#]Puntillo & Puntillo 2009.

[1)] Südtirol: Mendelgebirge: Penegal, nahe der Furglau-Scharte. In Hohlkehlen an der Stammbasis alter Fichten. ca. 1500 m, auf *Coniocybe furfuracea*, 25.10.1974, H. Hertel (M-0042214).

***Microsphaeropsis* Höhn.**

Selected literature: Sutton 1980, Etayo & Yazici 2009.

***Microsphaeropsis lichenicola* Etayo s.lat.**

Biblioth. Lichenol. 98: 124 (2008)

Hosts in Italy: *Physcia adscendens* (thallus).

CAM: B 2021.

Note: A short description and discussion is given in B 2021.

***Microsphaeropsis physciae* Brackel**

Biblioth. Lichenol. 109: 209 (2014)

Hosts in Italy: *Physcia adscendens** (thallus).

EMI: Munzi & al. 2020.

***Milospium* D. Hawksw.**

Selected literature: Diederich & al. 2024h.

***Milospium lacoizquetae* Etayo & Diederich**

Mycotaxon 60: 424 (1996)

Hosts in Italy: *Cladonia polydactyla*, *Cladonia* sp. (basal squamules).

CAL: Brackel & Puntillo 2016; **MOL**: B 2020**; TOS**: B 2015a.

***Minutoexcipula* V. Atienza & D. Hawksw.**

Selected literature: Diederich & al. 2024k.

***Minutoexcipula mariana* V. Atienza**

Biblioth. Lichenol. 82: 142 (2002)

Hosts in Italy: *Lepra albescens*, *Pertusaria* cf. *hymenea*, *P. pertusa*, *Pertusaria* and/or *Ochrolechia* sp. (thallus, ascomatal warts and apothecia).

CAL: Puntillo 2011, Brackel & Puntillo 2016; **CAM**: Puntillo & Brackel 2017; **LAZ**: B 2015a; **PUG**: B 2011a; **SAR**: Brackel & Berger 2019.

***Mixtoconidium* Etayo**

Selected literature: van den Boom & Etayo 2017.

***Mixtoconidium insidens* Etayo & van den Boom**

Ascomycete.org 9: 125 (2017)

Syn.: *Mixtoconidium canariense* Etayo.

Hosts in Italy: *Ramalina farinacea*, R fraxinea (thallus).

BAS: B 2011a (sub *Plectocarpon* aff. *nashii*); **CAL:** Brackel & Puntillo 2016 (sub *Plectocarpon* aff. *nashii*); **SIC**: B 2008b.

Note: An illustrated description is given in B 2011a under *Plectocarpon* aff. *nashi.*

***Monodictys* S. Hughes**

Selected literature: Diederich & al. 2024j.

***Monodictys epicladonia* (Zhurb.) Diederich**

Flora of Lichenicolous Fungi 2: 311 (2024)

Syn.: *Monodictys cladoniae* Brackel & Kukwa

Hosts in Italy: *Cladonia parasitica*, *Cladonia* sp. (thallus).

CAL: B 2019.

***Muellerella* Hepp ex Müll.Arg.**

Selected literature: Triebel 1989.

Note: The whole genus is in urgent need of revision and several of the species with a broad host spectrum probably will prove to be aggregates of morphologically similar but genetically different species.

***Muellerella atricola* (Linds.) Sacc. & D. Sacc.**

Syll. Fung. 17: 594 (1905)

Hosts in Italy: *Tephromela atra** (thallus).

EMI: Hafellner 2007b; **SIC**: B 2008b.

Note: The species is confined to *Tephromela atra* (Hafellner 2007b). Older records by Steiner (1911) and Anzi (1861–1868) of *Tichothecium erraticum* on *T. atra* from Piemonte most probably belong to this species.

***Muellerella erratica* (A. Massal.) Hafellner & V. John**

Herzogia 19: 165 (2006)

Syn.: *Muellerella pygmaea* var. *athallina* (Müll.Arg.) Triebel

Hosts in Italy: *Aspicilia* sp., *Caloplaca* sp., *Candelariella vitellina*, *Circinaria calcarea**, *C. contorta*, *Clauzadea monticola*, *Farnoldia* cf. *dissipabilis*, *F. hypocrita*, *F. jurana*, *Fuscidea kochiana*, *Glaucomaria rupicola*, *Gyalolechia fulgida*, *Kuettlingeria erythrocarpa*, *Lecania cyrtella*, *Lecanora campestris*, *L. chlarotera*, *L. orbicularis*, *L. polytropa*, *Lecanora* sp., *Lecidea lapicida* var. *pantherina*, *L. umbonata*, *Lecidea* sp., *Lecidella patavina*, *L. stigmatea*, *Lobothallia radiosa*, *Polyozosia agardhiana*, *P. albescens*, *P.* cf. *dispersa*, *Porpidia macrocarpa*, *Protoparmeliopsis bolcana*, *Rinodina immersa*, ¿*Tephromela atra*?, *Rhizocarpon geographicum*, *Variospora flavescens, V. velana* (thallus and apothecial margin).

ABR: Nimis & Tretiach 1999; **BAS**: Brackel & Puntillo 2023; **CAL**: Brackel & Puntillo 2016; **LAZ**: Nimis & Tretiach 2004; **LIG**: Triebel 1989; B 2025; **LOM**: Anzi 1862: 37, Triebel 1989, BSM 2006–2025[1)], B 2010d; **MAR**: Nimis & Tretiach 1999; **MOL**: B 2020; **PIE**: Jatta 1909–1911: 841, Matteucci & al. 2019; **PUG**: B 2011a; **SAR**: Brackel & Berger 2019; **SIC**: Nimis & al. 1994, B 2008a,b; **TAA**: Triebel 1989, Thor & Nascimbene 2007, new record below; **TOS**: B 2025; **VEN**: Triebel 1989.

New record: **TAA**: Passo Rolle, on rhyolite, on *Lecanora* cf. *frustulosa*, 2025, leg. R. Kray, det. W. v. Brackel (herb. Kray).

***Muellerella hospitans* Stizenb.**

Nova Acta Acad. Leop. Carol. 30: 51 (1863)

Hosts in Italy: *Bacidia rosella*, *B. rubella**, *Bacidina* aff. *assulata* (apothecia).

Italy (without site): Keissler 1930. **ABR:** Nimis & Tretiach 1999; **CAM**: Puntillo & Brackel 2017; **PIE**: Ferraris 1906: 141; **PUG**: B 2011a; **SAR**: Nimis & Poelt 1987.

***Muellerella lichenicola* (Sommerf.) D. Hawksw.**

Bot. Notiser 132: 289 (1979)

Syn.: *Tichothecium microcarpum* (Arnold) Arnold

Hosts in Italy: *Athallia cerinelloides*, *A. pyracea*, *Blastenia festivella*, *Caloplaca cerina*, *Caloplaca* s. lat. sp., *Circinaria calcarea*, *Gyalolechia flavovirescens**, *G. marmorata*, *Lecania cyrtella*, *Lecanographa amylacea*, *Lecidella elaeochroma*, *Lobothallia radiosa*, *Physcia aipolia*, *P. stellaris*, *Pertusaria pertusa*, *Protoblastenia rupestris*, *Sarcogyne pruinosa*, *Variospora aurantia*, *Xanthoria parietina* (thallus and apothecia).

ABR: B 2015a; **BAS**: B 2011a; **CAL**: Brackel & Puntillo 2016, new record below; **CAM**: Puntillo & Brackel 2017; **EMI**: B 2025; **LAZ**: B 2015a; **LIG**: B 2025; **MAR**: B 2025; **PIE**: Brackel & Isocrono in prep.; **PUG**: B 2011a; **SAR**: Baglietto 1879 (as *Tichothecium pygmaeum erraticum*, according to Hafellner *M. lichenicola*), Nimis & Poelt 1987, Brackel & Berger 2019; **SIC**: Nimis & al. 1994, B 2008a,b; **TAA**: Arnold 1887a: 103, Kernstock 1892a: 325, Triebel 1989; **TOS**: B 2015a, 2025.

New record: **CAL**: Prov. di Catanzaro, Magisano, Vallone Viperaro (Parco Nazionale della Sila), on *Quercus* sp., on *Pertusaria pertusa* (thallus), 1360 m., 21.11.2014, leg. D. Puntillo & C. Gangale, det. W. v. Brackel (CLU 18238).

***Muellerella polyspora* Hepp ex Müll.Arg.**

Mém. Soc. Phys. Hist. Nat. Genève 16 (2): 420 (1862)

Hosts in Italy: *Arthonia radiata**, *Bacidia rubella**, *Circinaria calcarea* (thallus).

EMI: Tretiach & al. 2008; **PIE**: Jatta 1909–1911: 837; **SAR**: Brackel & Berger 2019.

***Muellerella pygmaea* (Körber) D. Hawksw. s. lat.**

Bot. Notiser 132: 289 (1979)

Syn.: *Tichothecium pygmaeum* (Körb.) Körb., *Microthelia pygmaea* Körb., *Mycoporum pygmaeum* (Körb.) Jatta

Hosts in Italy: *Aspicilia cinerea*, *Aspicilia* s. lat. sp., *Bellemerea alpina*, *B. subsorediza*, *Circinaria calcarea*, *Farnoldia jurana*, *Lecanora polytropa*, *Lecidea lapicida**, *L. swartzioidea*, *Lecidea* sp., *Porpidia macrocarpa, P. speirea*, *Porpidia* sp., *Rhizocarpon geogra-*

phicum, *Rhizocarpon* sp., unidentified crustose lichens (thallus) and others mentioned under the former varieties.

CAM: Jatta 1882: 140, 1892b: 210; **FVG**: Tretiach & Hafellner 2000, Brackel & Isocrono in prep.; **LOM**: Anzi 1860: 115, Lettau 1958: 159; **PIE**: Baglietto & Carestia 1880: 354, Lettau 1958: 159; **PUG**: Jatta 1882: 140; **SAR**: Nimis & Poelt 1987, Brackel & Berger 2019; **TOS**: Baglietto 1871: 290; **TAA**: Arnold 1872b: 301, 1872c: 308, 1876c: 394, 397, 414, 1879a: 355, 359, 363, 365, 367, 368, 374, 378, 1880b: 106, 1887a: 115, 126, 136, 1896a: 112, 1897a: 221, 224, Kernstock 1890: 332, 335, 350, 1891: 737, 1892a: 325, 1892b: 349, 1893: 310, 1895: 203, 1896: 302, 308, Pfaff 1933: 56, Lettau 1958: 159, BSM 2006–2021.

Note: In the past *Muellerella pygmaea*, *M. erratica* [*M. pygmaea* var. *athallina* (Müll.Arg.) Triebel] and *M. ventosicola* [*M. pygmaea* var. *ventosicola* (Mudd) Triebel] were not distinguished or were treated as varieties of *M. pygmaea*.

***Muellerella pygmaea* (Körber) D. Hawksw. s. str.**

Bot. Notiser 132: 289 (1979)

Syn.: *Tichothecium pygmaeum* f. *grandiusculum* Arnold, *Mycoporum grandiusculum* (Arnold) Jatta

Hosts in Italy: *Acarospora* sp., *Aspicilia* s. lat. sp., *Carbonea vorticosa*, *Circinaria calcarea*, *Clauzadea monticola*, *Gyalolechia flavovirescens*, *Lecanora diaboli*, *L. dispersoareolata*, *L. intricata*, *L. polytropa*, *Lecidea fuscoatra*, *L. grisella*, *L. lapicida**, *L. oblurida-ta*, *L. speirodes*, *L. tesselata*, *Lecidea* sp. *Lecidella carpathica*, *Leproplaca proteus*, *Lobothallia radiosa*, *Melaspilea enteroleuca*, *Porpidia* sp., *Rehmia petraea*, *R. reducta*, *Rhizocarpon geographicum*, *Rinodina* sp., *Stenhammarella turgida* and several unidentified or unreported crustose saxicolous lichens (thallus, rarely apothecia).

BAS: Brackel & Puntillo 2023; **EMI**: Tretiach & al. 2008; **FVG**: Brackel in prep.; **LIG**: B 2025; **LOM**[1]: Anzi 1860: 115, Triebel 1989; **PIE**[1]; **SAR**: Brackel & Berger 2019; **SIC**: van den Boom 1992, Nimis & al. 1994, B 2008a,b; **TOS**[1]: Tretiach & al. 2008, B 2025; **TAA**: Arnold 1887a: 126, Kernstock 1891: 738, 1895: 203, 1896: 302, Triebel 1989.

[1]Jatta 1909–1911: 841.

***Muellerella rhizocarpicola* Brackel**

Archive for Lichenology 35: 10 (2023)

Hosts in Italy: *Rhizocarpon geographicum** (thallus).

ABR: B 2015a; **BAS**: Brackel & Puntillo 2023; **CAL**: B 2023; **EMI**: B 2025; **SAR**: Brackel & Berger 2019; **SIC**: B 2008a.

Note: A recently described species; several records previously reported as *M. ventosicola* (agg.) on *Rhizocarpon* may belong here.

***Muellerella ventosicola* (Mudd) D. Hawksw. s. lat.**

Lichenologist 35 (3): 212 (2003)

Hosts in Italy: *Circinaria hoffmanniana*, *Lecidea* sp., *Haematomma ventosicola*, *Protoparmelia badia*, *Rhizocarpon alpicola*, *R. carpaticum* (thallus).

Italian Alps: Jatta 1909–1911: 842 (on *Lecidea*); **EMI**: B 2025 (on *Circinaria hoffmanniana*); **SIC**: B 2008b (on *Protoparmelia badia*); **TAA**: Baglietto & Carestia 1880: 355 (on *Lecanora concolor*), Triebel 1989 (on *Rhizocarpon alpicola* & *Rhizocarpon carpaticum*).

Note: According to Hafellner & Obermayer (2007) *Muellerella ventosicola* in the strict sense is confined to *Ophioparma ventosa*. All specimens on other hosts reported as *M. ventosicola* are listed here. Some of the specimens on *Rhizocarpon* spp. may belong to *Muellerella rhizocarpicola.*

***Muellerella ventosicola* (Mudd) D. Hawksw. s. str.**

Lichenologist 35 (3): 212 (2003)

Hosts in Italy: *Ophioparma ventosa** (thallus).

CAL: Hafellner & Obermayer 2007: 53 (repeated in Brackel & Puntillo 2016); **PIE**: Jatta 1909–1911: 842; **TAA**: Baglietto & Carestia 1880: 355.

Note: Only records on *Ophioparma ventosa* belong to *M. ventosicola* s. str.

***Nectria* (Fries) Fries**

Selected literature: Diederich & Puntillo 1995, Rossman & al. 1999.

Nectria brutia* Diederich & Puntillo

Bull. Soc. Nat. Luxemb. 96: 95 (1995)

Hosts in Italy: *Collema* sp.* (thallus).

CAL: Diederich & Puntillo 1995*.

***Nectriopsis* Maire**

Selected literature: Rossman & al. 1999, Etayo 2017.

***Nectriopsis cariosae* Brackel & Zimmermann**

Herzogia 25: 231 (2012)

Hosts in Italy: *Cladonia coniocraea** (basal squamules).

CAL: Brackel & Puntillo 2016

***Nectriopsis hirta* Etayo**

Opuscula Philolichenum 8: 136 (2010)

Hosts in Italy: *Parmelia sulcata*, *Pertusaria pertusa*, *Phlyctis argena* (thallus and ascomatal warts).

CAL: Brackel & Puntillo 2016; **TOS**: B 2015a, 2025; **UMB**: B 2015a.

Note: A description is given in B 2015a and in B 2025.

***Nectriopsis indigens* (Arnold) Diederich & Schroers**

Lejeunia n. s. 162: 56 (1999)

Hosts in Italy: on rudimentary lichens.

TAA: Keissler 1930: 278, BSM 2006–2025[1)].

[1)] Südtirol, Kalkgerölle beim unteren Schneefeld an der Nordseite des Latemar, Karerpass., 06.08.1899, F. Arnold (M-0042640). – Dolomit mit Schwefelkies am Monzoni links gegen alle Selle, without date, F. Arnold (M-0042641).

***Nectriopsis lecanodes* (Ces.) Diederich & Schroers**
Lejeunia n. s. 162: 56 (1999)
Hosts in Italy: *Lobaria pulmonaria*, *Nephroma bellum*, *Peltigera canina**, *Peltigera* spp. (thallus).
CAL: Brackel & Puntillo 2016; **PIE**: Baglietto & al. 1863 (Herb. myc., ed. 2: no. 525), Bresadola & Saccardo 1897: 298, BSM 2006–2025[1)].
[1)] in montibus austro-occidentalibus ditionis Bugellensis (Pedemont.) prope pagulum Sn. Vitale inter vicos di Viverone et Salussola, su *Peltigera canina*, 15.10.1856, V. de Cesati & Malinverni (M-0042089).

***Nectriopsis physciicola* D. Hawksw. & Earl.-Benn.**
Bol. Soc. Mycol. Madrid 30: 245 (2006)
Hosts in Italy: *Physcia biziana*, *P. leptalea* (thallus, apothecial margin and apothecial disc).
ABR: B 2015a; **BAS**: B 2011a.
Note: A description is given in B 2015a.

***Neobuelliella* Hongsanan & K.D. Hyde**
Selected literature: Hongsanan & al. 2020.

***Neobuelliella poetschii* (Hafellner) Hongsanan & K.D. Hyde**
Fungal Diversity 105: 45 (2020)
Bas.: *Buelliella poetschii* Hafellner. Syn.; *Neobuelliella poetschii* (Hafellner) Hongsanan & K.D. Hyde
Hosts in Italy: *Endocarpon* sp. (squamules).
LAZ: Ravera & al. 2017b.

***Neocoleroa* Petrak**
Selected literature: Sérusiaux & al. 1999.

***Neocoleroa lichenicola* subsp. *bouteillei* (Bricaud, Sérus. & Cl. Roux) M.E. Barr**
Mycotaxon 64: 164 (1997)
Hosts in Italy: *Bacidina apiahica*, *Fellhanera bouteillei* (thallus).
TOS: Puntillo & Ottonello 1997; **CAM**: Puntillo 2000, Puntillo & al. 2000.

***Neoechinodiscus* Molinari & R. Sierra**
Selected literature: Etayo & Diederich 2000.

***Neoechinodiscus lesdainii* (Vouaux) Molinari & R. Sierra**
Opuscula Philolichenum 19: 173 (2020)
Syn.: *Echinodiscus lesdainii* (Vouaux) Etayo & Diederich
Hosts in Italy: *Lecania cyrtella** (thallus).
CAL: Brackel & Puntillo 2016.

***Nesolechia* A. Massal.**
Selected literature: Triebel & Rambold 1988, Triebel & al. 1995.

Nesolechia oxyspora* (Tul.) A. Massal. var. *oxyspora

Miscellanea Lichenologica: 43 (1856)

Syn.: *Arthonia tabescens* (Anzi) Jatta, *Celidium tabescens* Anzi

Hosts in Italy: *Melanohalea exasperatula*, *Parmelia saxatilis**, *Parmelina tiliacea* (thallus).

CAL: Brackel & Puntillo 2023; **FVG**: Hafellner 1998c; **LOM**: Anzi 1868a: 178*, Jatta 1909–1911: 752, Hafellner & Sancho 1990, Hafellner 1998c.; **TAA**: Kernstock 1891: 737, 1896: 302.

***Nesolechia oxyspora* var. *fusca* (Triebel & Rambold) Diederich**

The Bryologist 121: 394 (2018)

Syn.: *Phacopsis fusca* (Triebel & Rambold) Diederich

Hosts in Italy: *Xanthoparmelia angustiphylla*, *X. conspersa, X. pulla* (thallus).

CAL: Brackel & Puntillo 2016; **LOM**: B 2013b; **SAR**: Nimis & Poelt 1987: 144 (as *Nesolechia oxyspora*), Triebel & al. 1995, BSM 2006-2015[1)]; **SIC**: B 2008a,b; **TOS**: Nimis & al. 1990 (as *P. oxyspora*); **TAA**: Kernstock 1896: 302 (as *Nesolechia oxyspora*), Rambold & Triebel 1988: 303 (as *Phacopsis oxyspora*), Triebel & al. 1995.

[1)] Provinz Sassari Sonst ± vegetationslose Straßenböschung 6 km NW Tempio Pausania ca. 500 m NN, auf *Xanthoparmelia angustiphylla*, 10.04.1971, H. Wunder (M-0042749). – Sardinien (Sardegna) Provinz Nuoro Rio Madau 4 km N Fonni besonnte Blöcke, auf *Xanthoparmelia conspersa*, 16.04.1971, H. Wunder (M-0042750).

***Nesolechia thallicola* (A. Massal.) A. Massal.**

Symmicta Lich.: 75 (1855)

Bas.: *Lecidea thallicola* A. Massal., *Phacopsis thallicola* (A. Massal.) Triebel & Rambold

Hosts in Italy: *Flavoparmelia caperata** (thallus).

FVG: Triebel & al. 1995; **LOM**: Anzi 1860: 115, Jatta 1909–1911: 623, Triebel & Rambold 1988: 305, Triebel & al. 1995; **VEN**: Massalongo 1852*: 78, Triebel & Rambold 1988: 304–305;

***Niesslia* Auersw.**

Gams & al. 2019.

***Niesslia cladoniicola* D. Hawksw. & W. Gams**

Kew Bull. 30: 194 (1975)

Hosts in Italy: *Cladonia furcata*, *C. rangiferina*, *C. rangiformis* (podetia).

LIG: B 2025; **SAR**: Nimis & Poelt 1987, Brackel & Berger 2019; **TAA**: B 2013b.

***Niesslia lobariae* Etayo & Diederich**

Bull. Soc. Nat. luxemb. 97: 107 (1996)

Hosts in Italy: *Lobaria pulmonaria** (thallus).

CAL: Brackel & Puntillo 2016; **TOS**: B 2015a.

***Niesslia peltigericola* (D. Hawksw.) Etayo**
Biblioth. Lichenol. 98: 153 (2008)
Hosts in Italy: *Peltigera horizontalis* (moribund thallus).
TOS: B 2015a.

Niesslia robusta* Tretiach
Nova Hedwigia 75 (3-4): 358 (2002)
Hosts in Italy: *Tephromela grumosa** (thallus).
TOS: Tretiach 2002*, Gams & al. 2019.

***Nigropuncta* D. Hawksw.**
Selected literature: Diederich & al. 2024

***Nigropuncta rugulosa* D. Hawksw.**
Bull. Brit. Mus. (Nat.-Hist.), Bot. 9: 46 (1981)
Hosts in Italy: *Bellemerea cinereorufescens** (thallus).
TAA: Lettau 1958: 169 (as *Coniothecium sphaerale* on *Lecanora cinereorufescens*; see Ravera & al. 2025a, note of Hafellner sub *Sclerococcum sphaerale*); Hawksworth & Poelt 1986, Nimis 1993.

***Niptera* Fr.**

Niptera lichenicola* (Speg.) Sacc.
Syll. Fung. 8: 486 (1889)
Bas.: *Pyrenopeziza lichenicola* Speg. [Michelia 1 (5): 472 (1879)]
Hosts in Italy: *Flavoparmelia caperata** (thallus).
VEN: Spegazzini 1879*: 472, Saccardo 1889: 486 (Monte Cerva near Belluno).
Note: A species known only from the type collection in Italy, never found again.

***Obryzum* Wallr.**

***Obryzum corniculatum* Wallr.**
Wallroth, Naturgeschichte der Flechten 1: 253 (1825)
Hosts in Italy: no host given.
Italy (without site): Hoffmann & Hafellner 2000; **SAR**[1]: Brackel & Berger 2019 (citation Jatta 1911); **TOS**[1]; **VEN**[1].
[1]Jatta 1889: 228, 1900: 29, 1909–1911: 111.
Note: In the past, the name was used for the host lichen, even when no perithecia were present. So, for instance, all Italian specimens labelled as *Obryzum corniculatum* in M were revised by N. Hoffmann and none contained perithecia of the parasite. The records by Jatta and Saccardo are likewise doubtful.

***Opegrapha* Ach.**

Selected literature: Ertz & al. 2004, Ertz & Egea 2007.

***Opegrapha hellespontica* Vondrák & Kocourk.**

Lichenologist 40: 175 (2008)

Hosts in Italy: *Variospora flavescens* (thallus).

SAR: Brackel & Berger 2019.

***Opegrapha parasitica* (A. Massal.) H. Olivier**

Bull. Acad. Internat. Geogr. Bot. 16: 190 (1906)

Bas.: *Leciographa parasitica* A. Massal.; Syn.: *Opegrapha centrifuga* A. Massal.

Hosts in Italy: *Circinaria calcarea* agg.* (thallus).

CAL: Hafellner 2009a, ITALIC-HERBARIA[1)]; **FVG**: ITALIC-HERBARIA[2)]; **LIG**: ITALIC-HERBARIA[3)] **PIE**: Baglietto & Carestia 1865-1867: 411, 1880: 315; **SAR**: Hafellner 2009a; **SIC**: Nimis & al. 1994; **TAA**: Arnold 1872c: 306, 311, Kernstock 1896: 304, 308; **TOS**: Hafellner 2009a; **VEN**: Körber 1859-1865: 464, Triebel 1989, Lazzarin 2000b. [1)] Prov. di Cosenza, Diamante, Campi di Cirella, calcareous rocks, 1991, D. Puntillo (CLU 7581, 9700, 10389). [2)] Prov. di Trieste, Trieste Karst, Loc. Conconello, calcareous rocks, 1985, P. L. Nimis (TSB 6657). [3)] Prov. di Savona, Spotorno, Torre, siliceous metamorphic rocks (schists), 1952, C. Sbarbaro (GDOR 372).

Note: In the past, often not distinguished from *O. rupestris*; *O. parasitica* grows on *Aspicilia calcarea* agg., *O. rupestris* on *Verrucaria* s. lat.

***Opegrapha pertusariicola* O. Coppins & P. James**

Lichenologist 11: 164 (1979)

Hosts in Italy: *Pertusaria leioplaca* (thallus).

SIC: Grillo & Cristaudo 1995.

***Opegrapha phaeophysciae* R. Sant., Diederich, Ertz & Christnach**

Bibl. Lichenol. 91: 132 (2005)

Hosts in Italy: *Hyperphyscia adglutinata* (thallus).

CAM: B 2021; **LAZ**: B 2015a; **TOS**: B 2015a.

Opegrapha pulvinata* Rehm var. *pulvinata

Verh. zool.-bot. Ges. Wien 19: 500 (1869)

Hosts in Italy: *Dermatocarpon intestiniforme*, *D. miniatum* (thallus).

PIE: BSM 2006–2025[1)], Brackel & Isocrono in prep.; **TAA**: Thor & Nascimbene 2007, Hafellner 2009a. – Dubious records: **CAL**: Puntillo 1996 (on *Endocarpon pusillum*); **TAA**: Kernstock 1896: 308 (as *Leciographa parasitica* f. *conglobata*); **PIE**: Baglietto & Carestia (1880: 315) report a var. *stigmatommatis* on *Staurothele frustulenta* (= *Stigmatomma catalepta*), possibly belonging to *O. pulvinata* (see Navarro-Rosinés & Romero 2020).

[1)] in rupibus calcareis prope Riva Vallisessit, without date, A. Carestia (M-0042574).

***Opegrapha rotunda* Hafellner**
Herzogia 10: 14 (1994)
Hosts in Italy: *Physconia distorta* (thallus).
BAS: B 2011a; **SIC**: B 2008b.

***Opegrapha rupestris* Pers.**
Ann. Bot. (Usteri) 11: 20 (1794)
Syn.: *Opegrapha saxatilis* DC.
Hosts in Italy: *Verrucaria nigrescens*, *Verrucaria* sp.(thallus).
ABR[1]; **CAL**[1]: Puntillo 1996; **CAM**[1]: Jatta 1892b: 210 (as *Opegrapha saxatilis* DC.), Nimis & Tretiach 2004; **FVG**[1]; **LAZ**[1]; **LIG**[1]; **LOM**[1]; **PIE**[1]; **PUG**[1]: B 2011a; ¿**SAR**[1]: Nimis & Poelt 1987?; **SIC**[1]: Albo 1926, van den Boom 1992, Grillo 1996, Grillo & Caniglia 2004, Vondrák & Kocourková 2008; **TAA**[1]; **TOS**[1]; **UMB**[1]; **VEN**[1].
[1]Nimis 2026
Note: See under *O. parasitica*. Often given without host.

***Opegrapha vulpina* Vondrák, Kocourk. & Tretiach**
Lichenologist 40: 177.
Hosts in Italy: *Pyrenodesmia erodens* (thallus).
ABR: Vondrák & Kocourková 2008; **MAR**: Vondrák & Kocourková 2008.
Note: In the past often reported as *O. saxatilis*.

***Ophiobolus* Riess**
Selected literature: Clauzade & al. 1989.

***Ophiobolus thallicola* (Ces. & De Not.) Sacc.**
Sylloge Fungorum II: 351 (1883)
Hosts in Italy: *Peltigera* sp. (thallus).
PIE: De Notaris 1867: 489 (as *Rhaphidophora thallicola*), Saccardo 1883: 351.

***Orbicula* Cooke**
Selected literature: Matzer & Hafellner 1990.

Orbicula variolariae* (A. Massal.) Sacc.
Sylloge Fungorum II, Addenda ad Vol. I: II (=”816”) (1883)
Bas.: *Sphaeria variolariae* A. Massal.
Hosts in Italy: *Pertusaria pertusa** (= *Variolaria communis*) (thallus).
VEN: Massalongo 1855d: 241, Saccardo 1883: “816”, Vouaux 1912: 24, Keissler 1930: 267, Matzer & Hafellner 1990: 112.
Note: The species is known only from the type found near Scorgnano/Tregnago, Prov. di Verona (Massalongo 1855: 241).

***Ovicuculispora* Etayo**
Selected literature: Etayo 2010c, Darmostuk & al. 2025a.

***Ovicuculispora parmeliae* (Berk. & M.A. Curtis) Etayo**
Bull. Soc. linn. Provence 61: 30 (2010)
Hosts in Italy: *Parmelia saxatilis* (thallus).
SIC: B 2008a.

***Paralecia* Brackel, Greiner, Peršoh & Rambold**
Selected literature: Liu & al. 2015.

Paralecia pratorum* Brackel, Greiner, Peršoh & Rambold
Fungal Diversity Notes 100 (2015)
Hosts in Italy: *Protoparmeliopsis muralis** (thallus).
TOS: Liu & al. 2015*, B2015a*.
Note: The description of the teleomorph is given in Liu & al. 2015, an illustrated description of the anamorph is given in B 2015a.

***Parallethariicola* Calatayud, Etayo & Diederich**
Selected literature: Calatayud & al.2001.

***Parallethariicola aspiciliae* Calatayud, Etayo & Diederich**
Lichenologist 33: 478 (2001)
Hosts in Italy: *Aspicilia* sp. (thallus).
SAR: Calatayud & al. 2001a ("*Pleospilis* sp. & *Skyttea* sp. in Nimis & Poelt 1987").

***Parmeliicida* Diederich, F. Berger, Etayo & Lawrey**
Selected literature: Diederich & al. 2022c.

***Parmeliicida pandemica* Diederich, F. Berger, Etayo & Lawrey**
Hosts in Italy: *Melanelixia glabratula*, *Parmelia saxatilis*, *P. sulcata* (thallus).
EMI: B 2025; **LIG**: B 2025.

***Phacographa* Hafellner**
Selected literature: Hafellner 2009a.

***Phacographa glaucomaria* (Nyl.) Hafellner**
Biblioth. Lichenol. 100: 102 (2009)
Syn.: *Dactylospora maculans* Arnold, *Opegrapha maculans* (Arnold) Hafellner.
Hosts in Italy: *Glaucomaria rupicola** (thallus).
CAL: Hafellner 2009a; **EMI**: Tretiach & al. 2008, Hafellner 2009a; **SAR**: Brackel & Berger 2019; **TAA**: Arnold 1887a: 126, 1889a: 265, 1896a: 121, 122, Kernstock 1895: 193, Keissler 1930: 233, Hafellner 2009a; **TOS**: Baglietto 1871: 279 (as *Leciographa parasitica* on *Lecanora sordida* = *L. rupicola*). – The record from **FVG (**Tretiach & Hafellner 2000) turned out to be *Phacographa protoparmeliae* (see below).

***Phacographa protoparmeliae* Hafellner**
Biblioth. Lichenol. 100: 106 (2009)
Hosts in Italy: *Protoparmelia badia** (thallus).
FVG: Tretiach & Hafellner 2000 (as *Opegrapha glaucomaria*), Hafellner 2009a*: 107.

***Phacographa zwackhii* (A. Massal. ex Zwackh) Hafellner**
Biblioth. Lichenol. 100: 108 (2009)
Hosts in Italy: *Phlyctis agelaea*, *P. argena** (thallus).
ABR: B 2015a; **BAS**: B 2011a; **MOL**: B 2020; **SAR**: Zedda & Sipmann 2001 (as *Arthonia* cf. *phlyctidicola*), Brackel & Berger 2019.
Note: Dubious if here: *Peziza neesii* Flotow: **LOM:** Anzi 1868a: 178.

***Phacopsis* Tul.**
Selected literature: Triebel & Rambold 1988, Triebel & al. 1995.

***Phacopsis lethariellae* Hafellner & Rambold**
Bryologist 98 (1): 77 (1995)
Hosts in Italy: *Lethariella intricata* (thallus).
CAL: Puntillo 2011.

***Phacopsis vulpina* Tul.**
Ann. Sci. Nat. Bot. 3 ser. 17: 126 (1852)
Hosts in Italy: *Letharia vulpina** (thallus).
LOM: Anzi 1860: 115, Jatta 1909–1911: 623, Triebel & Rambold 1988: 307; **PIE**: Baglietto & al. 1858–1863, Baglietto & Carestia 1880: 352, Triebel & Rambold 1988: 307; **TAA**: Arnold 1876c: 414, Hafellner 1987a, Triebel & Rambold 1988: 307; **VEN**: Jatta 1909–1911: 623.

***Phacothecium* Trevis.**
Selected literature: Hafellner 2009.

***Phacothecium varium* (Tul.) Trevis.**
Linnaea 28: 298 (1856)
Bas.: *Phacopsis varia* Tul.; Syn.: *Opegrapha physciaria* (Nyl.) D. Hawksw. & Coppins, *Arthonia varia* (Tul.) Jatta, *Celidium varium* (Tul.) Mass.
Hosts in Italy: *Xanthoria calcicola, X. parietina** (thallus).
ABR: B 2015a; **CAL**: Brackel & Puntillo 2016; **CAM**[1]: Jatta 1892: 210, Puntillo & Brackel 2017, B 2021; **EMI**[1]; **LAZ**: B 2015a, **LIG**: (TSB 33405); **LOM**[1]; **MOL**: B 2020; **PUG**[1]: Jatta 1882: 137; **SAR**: Brackel & Berger 2019; **SIC**: Jatta 1882, 1889, 1909, Nimis 1993, Nimis & al. 1994, Grillo & al. 2002, Grillo & Caniglia 2004, Hafellner 2009a; **TOS**: B 2025.
[1]Jatta 1909–1911: 761.

***Phaeoseptoria* Speg.**
Selected literature: Punithalingam & Spooner 1997a.

***Phaeoseptoria peltigerae* Punith. & Spooner**
Hosts in Italy: *Peltigera neckeri* (thallus).
TOS: B 2025.
Note: A short discussion is given in B 2025.

***Phaeospora* Hepp ex Stein**
Selected literature: Zopf 1898.

***Phaeospora everniae* Etayo & van den Boom**
Opuscula Philolichenum 13: 57 (2014)
Hosts in Italy: *Evernia prunastri** (thallus).
SAR: Brackel & Berger 2019.

***Phaeospora parasitica* (Lönnr.) Arnold agg.**
Hosts in Italy: *Rhizocarpon petraeum* (thallus).
LOM: Jatta 1909–1911: 844 (as *Xenosphaeria advenula* on *Diplotomma excentrica = Rhizocarpon petraeum*); **TAA**: Kernstock 1890: 324 [as *Microthelia anthracina* f. *pallidior*, see also Hawksworth 1985a: 159 ("on a sterile whitish crustose thallus, most probably a *Rhizocarpon*"), erroneously for Austria], BSM2006–2025[1)].
[1)] Kalkwände in Val Fondo. Schluderbach in den Ampezzaner Alpen, auf *Rehmia umbilicata* (as *Rhizocarpon calcareum*).

***Phaeospora parasitica* (Lönnr.) Arnold s. str.**
Flora 57: 151 (1874)
Hosts in Italy: *Rehmia umbilicata* (thallus).
LOM: Lettau 1958: 154 (as *P. parasitica* auf *Rhizocarpon calcarium = R. umbilicata*); **TAA**: BSM 2006–2025 (M-0042817: Melaphyr am Fretschbach hinter Razzes in Südtirol, 07.1867, F. Arnold), Lettau 1958: 154 (as *P. parasitica* auf *R. hochstetteri* and *R. calcarium = R. umbilicata*).

***Phaeospora peltigericola* D. Hawksw.**
Trans. Brit. mycol. Soc. 74: 380 (1980)
Bas.: *Leptosphaeria arnoldii* Rehm.
Hosts in Italy: *Peltigera leucophlebia, P. malacea** (thallus).
TAA: Rehm 1904, Hawksworth 1980b, B 2013b.

***Phaeospora rimosicola* (Leight. ex Mudd) Hepp ex Stein**
Kryptogamen-Flora von Schlesien 2 (2): 350 (1879)
Hosts in Italy: *Rehmia petraea* (thallus).
LOM: Anzi 1864: 28, BSM 2006–2025[1)]; **PIE**: Baglietto & Carestia 1880: 353, Jatta 1909–1911: 844; **TAA**: Arnold 1876c: 396, 414, 1879a: 357, 1879a: 374, 1887a: 126, 135, Kernstock 1890: 324, 350, 1893: 310, 1895: 204, BSM 2006–2025[2)]. [1)] ad crustam rhizoc. petraei in silvis Vallis-Tellinae superioris (valli di Rezzo, e Dombastòne), without date, Anzi, Lich. Rar. Langob. Exs. (M-0042860). [2)] Westliche Dolomiten, an der Straße zwischen Moena und Forno, Porphyrblöcke, auf *Rehmia petraea*, 1250 m 9635/2,

20.08.1978, T. Feuerer (M-0042848). – Syenit im Kalkgerölle, Thalmulde auf der Viesena, Predazzo, Tirol, 08.1884, F. Arnold (M-0042855). – Campiler Schichten an der Westseite der Rodella, Wolkenstein in Gröden, Tirol, auf *Rhizocarpon* sp., 14.08.1897, E. Neugschwenter (M-0042857). – Porphyr ober dem Passe della Rolle bei Paneveggio in Südtirol, auf *Rehmia petraea*, 08.1878, F. Arnold (M-0042858). – Predazzo, on *Rehmia petraea* (as *Rhizocarpon subconcentricum*), without date, without collector (… cum Arnold) (M-0042861). – Campiler Seisser Schichten der Höhe ober dem Rollepasse, Paneveggio, Tirol, auf *Rehmia petraea*, 08.1883, F. Arnold (M-0042869).

***Phoma* Sacc.**

Selected literature: Boerema & al. 2004, Aveskamp & al. 2010, Ertz & al. 2015, Hafellner 2015.

Note: Many of the reported "*Phoma*" species have been transferred to *Didymocyrtis*, after clarification of their anamorph-teleomorph connection.

***Phoma lecanorina* Diederich**

Lejeunia 119: 23 (1986)

Hosts in Italy: *Flavoparmelia caperata* (thallus).

SAR: Brackel & Berger 2019.

***Phoma melanohaleicola* D. Hawksw. & Earl.-Benn.**

Bol. Soc. Micol. Madrid 30: 246 (2006)

Hosts in Italy: *Xanthoparmelia pulla* (thallus).

CAL: Brackel & Puntillo 2016.

***Phoma peltigerae* (P. Karsten) D. Hawksw.**

Trans. Brit. mycol. Soc. 74: 381 (1980)

Hosts in Italy: *Peltigera degenii, P. praetextata*, *P. rufescens*, *Peltigera* sp. (thallus).

LAZ: B 2015a; **LOM**: B 2010d; **TAA**: B 2013b; **VEN**: B 2013b.

Note: Most probably conspecific with *Didymocyrtis peltigerae* (Fuckel) Hafellner.

***Plectocarpon* Fée**

Selected literature: Ertz & al. 2005.

***Plectocarpon lichenum* (Sommerf.) D. Hawksw.**

Synonymy: *Celidium stictarum* Tul., *Arthonia stictarum* (Tul.) Jatta

Hosts in Italy: *Lobaria pulmonaria* (thallus).

Italy (without site): Jatta 1909–11: 760 ("totam per Italiam obvia"). Older records as *Arthonia stictarum*, *Celidium lichenum*, *C. stictarum*; **BAS**: Jatta 1882: 137, BSM 2006–2025[1)], Hafellner 2009a, B 2011a; **CAL**: Jatta 1880: 212, 1882: 137, Ertz & al. 2005, BSM 2006–2025[2)], Puntillo 2011, Brackel & Puntillo 2016; **CAM**: Jatta 1892: 209 (as *Celidium stictarum* Tul.), 1892, Trotter & Romano 1912, B 2021; **EMI**: B 2015a; **LAZ**: Tamburlini 1884; **LOM**: Anzi 1860: 116, 1862: 37, BSM 2006–2025[3)]; **MOL**: Jatta 1875: 237, B 2020; **PIE**: Baglietto & al. 1858–1863, BSM 2006–2025[4)]; **PUG**: Nimis & Tretiach 1999,

BSM 2006–2025[5)]; **SAR**: Baglietto 1879: 121, Nimis & Poelt 1987; **TOS**: Baglietto 1871: 274, Anzi 1862: 166, BSM 2006–2025[2)]; **UMB**: B 2025.

[1)]Prov. Potenza: NW-Abhänge der Coppola di Paola SE Rotonda, Buchenwälder bei etwa 1400 m, über Kalk, auf *L. pulmonaria*, 31.05.1979, J. Polet (M-0042939); [2)]in apotheciis *Stictae pulmonariae* L. in Aspromonte, 1878, Jatta, Lich. Ital. Merid. Exs. (M-0042937); [3)]ad apothecia *Sticae pulmonariae* in sylvis abietinis supra Alfaèdo, without date, Anzi, Lich. Rar. Langob. Exs. (M-0042935); [4)]2 specimens, from Piemonte e Toscana: Sugli apoteci della *Sticta pulmonaria*, l'esemplare superiore dai monti d'Oropa nel Biellese: l'altro da' Castagneti del Monte Pisano in Toscana. 1859, 1861. Cesati, Beccari (M-0042936); [5)]Mte. Gargano, 800 m An Buche, Foresta Umbra 2 km südl. Cant. d' Umbra, auf *L. pulmonaria*, 22.04.1964, T. Schauer (M-0042940).

***Pleospora* Rabenh. ex Ces. & De Not.**

Selected literature: Khodosovtsev & Darmostuk 2016.

***Pleospora physciae* (Brackel) Hafellner & E. Zimm.**

Syn.: *Didymocyrtis physciae* (Brackel) Hafellner

Hosts in Italy: *Physcia adscendens*, *P. stellaris* (thallus).

EMI: B 2025; **SIC**: B 2010b.

***Polycoccum* Saut. ex Körb.**

Selected literature: Hawksworth & Diederich 1988.

***Polycoccum aksoyi* Halıcı & V. Atienza**

Mycotaxon 101: 158 (2007)

Hosts in Italy: *Aspiciliella intermutans* (thallus).

SAR: Brackel & Berger 2019.

***Polycoccum alboatrae* (Vouaux) Etayo**

Guineana 16: 336 (2010)

Hosts in Italy: *Diplotomma hedinii* (thallus.).

LIG: B 2025.

Note: A short description is given in B 2025.

***Polycoccum alpinum* E. Zimm. & Berger**

Herzogia 34(2): 471 (2021)

Hosts in Italy: *Thamnolia vermicularis* ssp. *taurica* (thallus).

TAA: Zimmermann & Berger 2021.

***Polycoccum cartilaginosum* (Arnold) D. Hawksw.**

Bull. Br. Mus. nat. Hist. (Bot.) 14: 141 (1985)

Bas.: *Microthelia cartilaginosa* Arnold.

Hosts in Italy: no host given.

TAA: Arnold 1876c: 399, 1886: 83, Hawksworth & Diederich 1988, BSM 2006–2025[1)].

[1)] Auf Kalksteingerölle ober der Schlucht am Abhange unter dem Griesthalgletscher bei Schluderbach. Tirol. 17.07.1882, F. Arnold (M-0043011, M-0043012 = Arnold, Lich. Exs.). – Dolomitsteine des Monte Mulaz. Paneveggio - Südtirol. 08.1880, F. Arnold (M-0043013).

***Polycoccum crassum* Vězda**
Česká Mykol. 24: 227 (1970)
Hosts in Italy: *Peltigera neckeri* (thallus).
SAR: Brackel & Berger 2019.

***Polycoccum kerneri* J. Steiner**
Sber. akad. Wiss. Wien, Math.-Nat. Kl. 102: 162 (1893)
Hosts in Italy: *Lecidea fuscoatra** (thallus).
SIC: B 2008a.

***Polycoccum marmoratum* (Kremp.) D. Hawksw.**
Lichenologist 12 (1): 107 (1980)
Bas.: *Tichothecium marmoratum* Kremp.
Hosts in Italy: *Aspicilia* sp., *Polyblastia cupularis* (thallus).
LOM: Jatta 1909–1911: 839; **TAA**: BSM 2006–2025[1)].
Note: Arnold's find (Kurstein bei Eichstätt) mentioned in Hawksworth & Diederich 1988 for Italy is not from Italy but from Bavaria (Germany).
[1)] Dolomit/Kalkfelsen/am Bache am Laufe unweit der Prossliner Schwaig auf der Seiser Alpe - Südtirol. 07.1867, F. Arnold (M-0043050, M-0043057, M-0043059, M-0043061). – Dolomit in der Schlernklamm ober Razzes in Südtirol. 07.1867, F. Arnold (M-0043053). – Dolomit des Schlernabhanges oberhalb der Seisser Alpe in Südtirol. 07.1867, F. Arnold (M-0043054, M-0043055). – Kalkfelsen am Fretschbach hinter Razzes in Südtirol. 07.1867, F. Arnold (M-0043058). – Dolomit der Schlern in Südtirol. 08.1867, F. Arnold (M-0043062). – Kalkfelsen der Lavini S. Marco bei Mori. Roveredo in Südtirol. 09.1870, F. Arnold (M-0043041, M-0043042, M-0043044, M-0043047). – Kalksteine am Aufstiege zum Cristallgletscher - Schluderbach in Ampezzo. 08.1874, F. Arnold (M-0043051, M-0043057, M-0043060, M-0043072, M-0043079, M-0043080, M-0043081). – Dolomitsteine am Aufstieg zum Gletscher des Cimon della Pala. Paneveggio - Südtirol. 07.1880, F. Arnold (M-0043045). – Kalksteine auf dem Castellazzo. Paneveggio in Südtirol. 08.1880, F. Arnold (M-0043034). – Monte Mulaz. Paneveggio in Südtirol. [p.p.] auf *Polyblastia cupularis*, 08.1880, F. Arnold (M-0043046, M-0043048, M-0043076, M-0043078). – Kalkgeröll auf der Nordseite des Castellazzo. Paneveggio. Tirol. 08.1885, F. Arnold (M-0043039). – Dolomit im Damers. Schlern - Südtirol. 08.1887, F. Arnold (M-0043056). – Kalkfelsen an der alten Strasse von Torbole nach Nago. Tirol. 12.05.1900, F. Arnold (M-0043040). – Am Fuße der Nordwand des Langkofels bei Wolkenstein in Gröden. Tirol. 08.1893, F. Arnold (M-0043075, M-0043077).

***Polycoccum microcarpum* Diederich & Etayo**
Lichenologist 30: 111 (1998)
Hosts in Italy: *Cladonia incrassata* (basal squamules).

TOS: B 2015a.
Note: A discussion of the ascospore variability is given in B 2015a.

***Polycoccum microsticticum* (Leight.) Arnold**
Ber. Bayer. Bot. Ges. 1(suppl.): 132 (1891)
Syn.: *Endococcus microsticticus* (Leight.) Arnold
Hosts in Italy: *Acarospora fuscata* (thallus).
TAA: Arnold 1887a: 92, Keissler 1930: 476, Lettau 1958: 161, BSM 2006–2025[1)].
[1)] An einer Syenitwand auf der Höhe der Margola bei Predazzo. Südtirol, auf *Acarospora fuscata*, 07.1885, F. Arnold (M-0043123).

***Polycoccum minus* (Kernst.) Brackel**
Herzogia 32: 461 (2019)
Bas.: *Microthelia minor* Kernst.
Hosts in Italy: *Lecidella carpathica*, cf. *Lecidella stigmatea** (apothecia).
SAR: Brackel & Berger 2019; **TAA**: Kernstock 1896: 307, Triebel 1989: 239.
Note: An illustrated description of the species is given in Brackel & Berger 2019.

***Polycoccum pulvinatum* (Eitner) R. Sant.**
The lichens and lichenicolous fungi of Sweden and Norway: 175 (1993)
Bas.: *Tichothecium pulvinatum* Eitner; Syn.: *Polycoccum galligenum* Vězda.
Hosts in Italy: *Physcia aipolia*, *P. dimidiata*, *P. dubia*, *P. tribacia* (thallus).
CAL: Brackel & Puntillo 2016; PIE: Ravera & al. 2025b; **SAR**: Nimis & Poelt 1987, Brackel & Berger 2019; **TAA**: Hafellner 1994b, BSM 2006–2025[1)].
[1)] Prov. Trento: Felsblöcke an der Straße von San Martino di Castr. zum Rollepaß, ca. 1850 m, auf *Physcia dubia*, 13.08.1968, H. Wunder (M-0043023).

***Polycoccum rubellianae* Calatayud & V. Atienza**
Lichenologist 35: 126 (2003)
Hosts in Italy: *Caloplaca rubelliana** (thallus).
TAA: Hafellner 2015, BSM 2006–2025[1)].
[1)] Porphyr ober Gries bei Bozen in Südtirol., auf *Caloplaca rubelliana*, 09.1870, F. Arnold (M-0043002).

***Polycoccum sporastatiae* (Anzi) Arnold**
Flora 57: 144 (1874)
Bas.: *Tichothecium sporastatiae* Anzi
Hosts in Italy: *Sporastatia polyspora**, *S. testudinea* (thallus).
FVG: Tretiach & Hafellner 2000; **LOM**: Anzi 1866*: 257, Jatta 1909–1911: 839, Ravera & al. 2025b; **PIE**: Baglietto & Carestia 1880: 355, Ravera & al. 2025b; **SAR**: Ravera & al. 2025b; **TAA**: Arnold 1887a: 115, BSM 2006–2025[1)], Ravera & al. 2025b; **VAO**: Ravera & al. 2025b.
[1)] Porphyr. Uebergang nach Caoria. Val Maor. – Predazzo in Südtirol., auf *Sporastatia testudinea*, 07.1880, F. Arnold (m-0043134). – Porphyr rechts ober Giuribrutt. Paneveggio in Südtirol., auf *S. testudinea*, 08.1880, F. Arnold (M-0043136).

***Polycoccum squamarioides* (Mudd) Arnold**
Flora, Jena 57: 174 (1874)
Hosts in Italy: no host given.
TAA: BSM 2006–2025[1)].
[1)] Melaphyrgerölle am Wege ober Predazzo gegen Latemar. Südtirol. 08.1884, F. Arnold (M-0043157).
Note: A dubious record, as *P. squamarioides* is restricted to hosts of the genus *Placopsis*, and no *Placopsis* is known from TAA.

***Polycoccum thallicola* Arnold**
Verh. zool.-bot. Ges. Wien 46: 105 (1896)
Hosts in Italy: *Aspicilia candida** (thallus).
EMI: B 2025.
Note: A short description is given in B 2025.

***Polycoccum vermicularium* (Linds.) D. Hawksw.**
Bull. Br. Mus. nat. Hist., Bot. 14: 172 (1985)
Hosts in Italy: *Thamnolia vermicularis, Thamnolia vermicularis* ssp. *taurica* (thallus).
TAA: Jaap 1908: 209, Keissler 1930: 407, Zimmermann & Berger 2021.

Polycoccum versisporum* (Bagl. & Carestia) D. Hawksw.
Bull. Br. Mus. nat. Hist., Bot. 14: 173 (1985)
Bas.: *Microthelia versispora* Bagl. & Carestia.
Hosts in Italy: unknown whitish saxicolous crust*,
PIE: Baglietto & Carestia 1880*: 337, Hawksworth & Diederich 1988, BSM2006–2025[1)].
[1)] Ad saxa in monte Plaida supra Riva Vallisessita. F. Baglietto, without date (M-0045885).

***Pronectria* Clem.**
Selected literature: Rossman & al. 1999, Khodosovtsev & al. 2012, Berger & al. 2020

***Pronectria echinulata* Lowen**
Stud. Mycol. 42: 58 (1999)
Hosts in Italy: *Physcia aipolia**, *Physconia distorta*, *P. venusta*, *Physconia* sp. (thallus).
BAS: B 2011a; **CAL**: Brackel & Puntillo 2016; **MAR**: B 2015a, 2025; **SAR**: Brackel & Berger 2019; **SIC**: B 2008b.
Note: A description of the anamorph is given in B 2025. Some older records (B 2010d from Lombardia) of *P. echinulata* belong to the newly described *Xenonectriella physciacearum*.

***Pronectria erythrinella* (Nyl.) Lowen**
Mycotaxon 39: 461 (1990)
Hosts in Italy: *Peltigera praetextata* (thallus).
LOM: B 2010d.

***Pronectria leptaleae* (J. Steiner) Lowen**
Mycotaxon 39: 462 (1990)

Syn.: *Xenonectriella leptaleae* (J. Steiner) Rossman & Lowen.

Hosts in Italy: *Physcia aipolia, P. leptalea, P. stellaris* (apothecia).

ABR: B 2015a, Berger & al. 2020; **EMI**: B 2025; **SAR**: Brackel & Berger 2019, Berger & al. 2020; **SIC**: B 2008a,b, Berger & al. 2020; **TAA**: Berger & al. 2020.

Note: Some of the older records (B 2011a: 5656 from Basilicata, B 2015a: 6568 from Toscana; Brackel & Puntillo 2016 from Calabria all specimens) of *P. leptaleae* belong to the newly described *Xenonectriella physciacearum*, the specimen from Marche (B 2015a) belongs to *Pronectria echinulata*.

Pronectria lilae* Brackel

Borziana 6: 37 (2025)

Hosts in Italy: *Seirophora villosa** (thallus and apothecia).

TOS: B 2025*.

***Pronectria oligospora* var. *octospora* Etayo**

Nova Hedwigia 67: 505 (1998)

Hosts in Italy: *Punctelia jeckeri*, *P. subrudecta*, *Punctelia* sp. (thallus).

CAL: Brackel & Puntillo 2016; **CAM**: B 2021; **LAZ**: B 2015a; **TOS**: B 2015a; **UMB**: B 2025.

***Pronectria pedemontana* Brackel**

Herzogia 26: 148 (2013)

Hosts in Italy: *Lathagrium auriforme** (thallus).

FVG: B 2013b; **LOM**: B 2013b.

***Pronectria pertusariicola* Lowen**

Studies in Mycology 42: 59 (1999)

Hosts in Italy: *Lepra albescens*, *Pertusaria hymenea*, *P. pertusa**, *Pertusaria* sp. (thallus and ascomatal warts).

BAS: B 2011a; **CAL**: Brackel & Puntillo 2016, 2023; **CAM**: B 2021; **MOL**: B 2020; **SAR**: Brackel & Berger 2019; **SIC**: BSM 2006–2025[1)]; **TOS**: B 2015a, 2025.

[1)] Prov. Messina, Monti Nebrodi, zw. San Tratello v. Portella Fémmina Morta, SS289 km 29/II, on *Pertusaria pertusa,* 18.08.2007, W. & G. v. Brackel (M-0045757).

Note: An illustrated description of the putative anamorph is given in B 2021.

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

Mycotaxon 39: 462 (1990)

Hosts in Italy: *Solorina bispora* subsp. *bispora*, *S. saccata*, *S. spongiosa* (thallus and apothecia).

ABR: B 2015a; **TAA**: B 2013b

Notes: *Pronectria robergei* s. str. grows only on *Peltigera* spp., see below (Zhurbenko 2009d). The complex of *P. robergei*, *P. solorinae* Lowen & R. Sant. ined. and *P. loweniae* Flakus, Etayo, Rodr. Flakus & Zhurb. remains unresolved.

***Pronectria robergei* (Mont. & Desm.) Lowen s. str.**
Mycotaxon 39: 462 (1990)
Syn.: *Leptosphaeria mamillula* Anzi (1868: 26), *Cryptodiscus lichenicola* Ces. in Rabenh.
Hosts in Italy: *Peltigera canina** (thallus).
LOM: Anzi 1868a: 180; **PIE**: Rabenhorst 1857: 406, BSM 2006–2025[1)].
[1)] Circa lacusculum montanum di Bertignano alterum que paullo distantem di Viverone ad limites austro-occid. ditionis Bugellensis (Pedemont.), su *Peltigera canina*, 10.1856, V. de Cesati (M-0043172).
Note: *Illosporium carneum* Fr. was considered as the anamorph of the species, as both often occur together. Diederich & al. 2024 showed, that this interpretation may be wrong or there are more than one anamorphs of *Pronectria* morphologically similar to *I. carneum*.

***Pronectria santessonii* (Lowen & D. Hawksw.) Lowen**
Mycotaxon 39: 462 (1990)
Hosts in Italy: *Anaptychia ciliaris* (thallus).
ABR: B 2015a, Berger & al. 2020; **LAZ**: B 2025; **MOL**: B 2020; **SIC**: B 2008b, Berger & al. 2020.

***Pronectria terrestris* Lowen & Diederich**
Mycologia 82: 790 (1990)
Hosts in Italy: unidentified terricolous crust.
LOM: B 2010d.

***Pronectria xanthoriae* Lowen & Diederich**
Mycologia 82: 788 (1990)
Hosts in Italy: *Xanthoria parietina** (thallus and apothecia).
ABR: B 2015a; **BAS**: 2011a; **SIC**: B 2008b.

Pronectria zhurbenkoi* Brackel
Herzogia 28: 259 (2015)
Hosts in Italy: *Peltigera praetextata** (thallus).
TOS: B 2015a*.

***Protothelenella* Räsänen**
Selected literature: Mayrhofer & Poelt 1985, Mayrhofer 1987a.

Protothelenella croceae* (Bagl. & Carestia) Hafellner & H. Mayrhofer
Herzogia 7: 320 (1987)
Bas.: *Xenosphaeria croceae* Bagl. & Carestia.
Hosts in Italy: *Solorina crocea** (thallus).
FVG: Tretiach & Hafellner 2000; **PIE**: Baglietto & Carestia 1880*: 352, Jatta 1909–1911: 843, Mayrhofer 1987a: 320, Isocrono & al. 2004.

***Pseudocercospora* Speg.**
Selected literature: Diederich & al. 2024c.

***Pseudocercospora lichenum* (Keissl.) D. Hawksw.**

Bull. Brit. Mus. (Nat. Hist.), Bot. 6: 246 (1979)

Hosts in Italy: *Pertusaria pertusa* (thallus and apothecia).

TOS: B 2025.

Note: This hyphomycete colonises unrelated hosts, presumably as a saprophyte on predamaged thalli and apothecia. Nevertheless it seems to be obligately lichenicolous. Several specimens reported also from Italy (SIC: B 2008a, UMB: B 2015a, CAM: B 2021) proved to belong to other, as yet undescribed species (Diederich & al. 2024c).

***Pseudoseptoria* Speg.**

Selected literature: Sutton 1980, Hawksworth 1981a.

Pseudoseptoria usneae* (Vouaux) D. Hawksw.

Bull. Br. Mus. (Nat. Hist.) Bot. S. 9: 57 (1981)

Bas.: *Phoma usneae* Vouaux, *Epicoccum usneae* Anzi

Hosts in Italy: *Usnea* cf. *barbata, U. filipendula* agg.* (thallus).

CAL: Brackel & Puntillo 2023; **TAA**: Arnold 1896d no. 1718, Vouaux 1914*: 196, Hawksworth 1981a.

***Pyrenidium* Nyl.**

Selected literature: Huanraluek & al. 2019.

***Pyrenidium actinellum* Nyl. agg.**

Flora 48: 210 (1865)

Syn.: *Leptosphaeria rivana* (De Not.) Sacc.

Hosts in Italy: *Phlyctis argena*, *Solorina crocea*, *Trapelia coarctata* s. lat. (thallus).

LAZ: B 2015a; **LIG**: Triebel 1989, BSM 2006–2025[1)]; **PIE**: Saccardo 1883: 83, Triebel 1989, BSM 2006–2025[1)]; **TAA**: BSM 2006–2025[2)].

[1)] L'esemplare a destrá sulle pietre erratiche a Serravalle Scrivia, l'altro da un muro sopra Rivarolo in Polcevera presso Genova. Su Trapelia coarctata s. lat., F. Baglietto, Baglietto, Cesati & Notaris, Erb. Critt. Ital. Ser. I (M-0045644). [2)] Südtirol, auf *Solorina crocea* am Hühnerspiel b. 2000 mtr, without date, B. Stein (M-0042693).

***Pyrenidium crozalsii* (Vouaux) Nav.-Ros. & Cl. Roux**

Catalogue des Lichens et Champignons Lichénicoles de France Métropolitaine (Fougères): 968 (2014)

Bas.: *Leptosphaeria crozalsii* Vouaux.

Hosts in Italy: *Circinaria gibbosa*, ¿*Lecidea lapicida*? (thallus).

TAA: Sarnthein 1894, Kernstock 1893: 310, Keissler 1930: 120, Clauzade & al. 1989.

Note: Sarnthein (1894) reports from Brixen/Bressanone *Xenosphaeria oligospora* Wainio on *Lecidea declinans* (= *L. lapicida*) and Kernstock 1893: 310 *X. oligospora* on *Aspicilia gibbosa*. Keissler (1930) treats *Xenosphaeria oligospora* Kernst. as a possible synonym of *Leptosphaeria crozalsii* Vouaux and cites a find of Sarnthein from Grasstein near Sterzing/Vipiteno on *Lecanora gibbosa* (= *Circinaria gibbosa*), the same find is reported by Kernstock 1893. Clauzade & al. 1989 most probably refer to one of these

finds. As *Pyrenidium actinellum* s. str. is restricted to *Scytinium*, we accept the find on *Circinaria gibbosa* as *P. crozalsii*.

***Pyrenochaeta* De Not.**

Selected literature: Sutton 1980, Hawksworth 1981a.

***Pyrenochaeta xanthoriae* Diederich**

Mycotaxon 37: 318 (1990)

Hosts in Italy: *Physcia biziana*, *P. leptalea*, *Xanthoria calcicola, X. parietina** (thallus and apothecia).

BAS: B 2011a; **CAL**: Brackel & Puntillo 2016; **CAM**: Puntillo & Brackel 2017, B 2021; **EMI**: B 2025; **PUG**: B 2011a; **SAR**: Brackel & Berger 2019; **SIC**: B 2008b, **VEN**: B 2013b.

***Reconditella* Matzer & Hafellner**

Selected literature: Matzer & Hafellner 1990.

***Reconditella physconiarum* Hafellner & Matzer**

Biblioth. Lichenol. 37: 47 (1990)

Hosts in Italy: *Physconia distorta*, *Physconia* sp. (thallus).

CAL: Brackel & Puntillo 2016; **CAM**: B 2021.

***Rhagadostoma* Körb.**

Selected literature: Navarro-Rosinés & Hladun 1994, Navarro-Rosinés & al. 1999a.

***Rhagadostoma brevisporum* (Nav.-Ros. & Hladun) Nav.-Ros.**

Bull. soc. linn. Provence 50: 236 (1999)

Hosts in Italy: *Peltigera lepidophora*, *P. rufescens** (thallus).

PIE: Navarro-Rosinés & Hladun 1994*, Navarro-Rosinés & al. 1999a; **TAA**: Bilovitz & al. 2014a.

Rhagadostoma lichenicola* (De Not.) Keissl.

Rabenhorst's Kryptogamenflora 8: 320 (1930)

Bas.: *Bertia lichenicola* De Not. [Erb. Critt. Ital. Ser. I Fasc. 24: № 1190 (1864)]; Syn.: *Rhagadostoma corrugatum* Körb.

Hosts in Italy: *Solorina crocea** (thallus).

PIE: De Notaris 1864, Baglietto & Carestia 1880: 356; **LOM**: Anzi 1868a: 179; **TAA**: BSM 2006–2025[1)].

[1)] Riva, in *Solorina crocea*, 1865, A. Carestia, Rabenhorst, Fungi Eur. Exs. (M-0043243, M-0043244).

Note: It is dubious if also this one belongs to the species: *Bertia solorinae* on *Solorina crocea* (Anzi 1868a: 179) = *Melanomma solorinae* (Anzi) Sacc. on *Solorina saccata*, as it shows different features of the ascospores: 2–6 per ascus, 3–7-septate, 23–30 × 7–12 µm].

***Rhizocarpon* Ramond ex DC.**

Poelt 1990.

Rhizocarpon ochrolechiae* (Poelt & Nimis) Hafellner

Herzogia 9: 86 (1992)

Bas.: *Rhizocarpon lusitanicum* var. *ochrolechiae* Poelt & Nimis [Stud. Geobot. 7, Suppl. 1: 205 (1987)].

Hosts in Italy: *Ochrolechia parella**, whitish crust, possibly *Ochrolechia* parella.

SAR: Nimis & Poelt 1987*, Brackel & Berger 2019.

Note: a genuine lichenicolous fungus, not lichenized.

***Rhymbocarpus* Zopf**

Selected literature: Diederich & Etayo 2000, Etayo & Diederich 2011.

***Rhymbocarpus geographici* (J. Steiner) Vouaux**

Bull. Soc. Mycol. France 29(4): 419 (1913)

Bas.: *Nesolechia geographici* J. Steiner; Syn.: *Rhymbocarpus punctiformis* Zopf, *Phacopsis geographici* (J. Steiner) Keissl.

Hosts in Italy: *Rhizocarpon geographicum** (thallus).

BAS: Brackel & Puntillo 2023; **TAA**: Arnold 1897a: 218, 1898c: no. 1772 (type of *R. punctiformis*), Lettau 1958: 141, Triebel 1989: 143.

***Rhymbocarpus neglectus* (Vain.) Diederich & Etayo**

Lichenologist 32(5): 467 (2000)

Llimoniella neglecta (Vain.) Triebel & Rambold

Hosts in Italy: *Lepraria* sp. (thallus).

FVG: Tretiach & Hafellner 2000.

***Roselliniella* Vain.**

Selected literature: Matzer & Hafellner 1990, Hoffmann & Hafellner 2000, Darmostuk & al. 2018

***Roselliniella atlantica* Matzer & Hafellner**

Biblioth. Lichenol. 37: 55 (1990)

Hosts in Italy: *Xanthoparmelia verruculifera* (isidious parts of the thallus).

SIC: B 2008b.

Roselliniella cladoniae* (Anzi) Matzer & Hafellner

Biblioth. Lichenol. 37: 59 (1990)

Bas.: *Sordaria cladoniae* Anzi [Analecta: 179 (1868)]

Hosts in Italy: *Cladonia foliacea, C. furcata, . pyxidata*, *C. pyxidata* f. *pocillum*, *C. rangiformis*, *C. sulphurina** (as *C. deformis*), *Tremella cladoniae* (basal squamules, podetia, mostly in the lower parts).

ABR: B 2015a; **CAL**: Brackel & Puntillo 2016; **EMI**: B 2025; **LAZ**: B 2015a; **LIG**: B 2025; **LOM**: Anzi 1868a*: 179, Matzer & Hafellner 1990, B 2013b; **SAR**: Brackel & Berger 2019; **TOS**: B 2015a; **TAA**: Anzi 1861–1873 № 26, Keissler 1930: 313, Matzer & Hafellner 1990; **UMB**: B 2015a.

Note: The specimens CLU 17325 from Calabria on *Cladonia foliacea*, reported in Brackel & Puntillo 2016 as well as Brackel 6361 from Lombardia on *Cladonia pyxidata*, reported in Brackel 2013b as *Calongeomyces gibelluloides*, represent anamorphs of *Roselliniella cladoniae*; it was not known at this time and is morphologically very similar, see for the differences Coste & Pinault 2019.

***Roselliniella microthelia* (Wallr.) Nik. Hoffmann & Hafellner**
Biblioth. Lichenol. 77: 93 (2000)
Hosts in Italy: *Trapelia coarctata*, *T. glebulosa* (thallus).
TOS: B 2015a.

***Roselliniella muralis* van den Boom**
Ann. Naturhist. Mus. Wien, B, 117: 259 (2015)
Hosts in Italy: *Protoparmeliopsis muralis** (thallus).
SAR: Brackel & Berger 2019.

***Roselliniella pannariae* Matzer & Hafellner**
Biblioth. Lichenol. 37: 87 (1990)
Hosts in Italy: *Protopannaria pezizoides** (thallus).
TAA: Matzer & Hafellner 1990*.

***Rosselliniopsis* Matzer & Hafellner**
Selected literature: Matzer & Hafellner 1990, Hafellner 2004e

Roselliniopsis groedensis* (Zopf) Matzer & Hafellner
Biblioth. Lichenol 37: 99 (1990)
Bas.: *Rosellinia groedensis* Zopf (or *R.* "*groedenensis*") [Hedwigia 35: 350 (1896)]
Hosts in Italy: *Varicellaria lactea** (thallus).
EMI: Tretiach & al. 2008; **TAA**: Zopf 1896, Arnold 1897a: 219, Keissler 1930: 311, Matzer & Hafellner 1990, Matzer 1993a.
Note: According to Matzer & Hafellner 1990 the host of the type is *Varicellaria lactea* and not, as noted by Zopf and Arnold, *Pertusaria suphurella* f. *variolosa* and *P. wulfenii* f. *variolosa* (= *P. flavicans*).

***Roselliniopsis tartaricola* (Nyl. ex Leight.) Matzer**
Cryptogamie, Mycol. 14: 16 (1993)
Hosts in Italy: *Lepra albescens*, *L. amara*, *L. hemisphaerica*, *Pertusaria pertusa* (thallus).
CAL: Brackel & Puntillo 2016, 2023; **LIG**: B 2025; **MOL**: B 2020.
Note: Brackel & Puntillo 2023 give a description of the anamorph, B 2020 a short description of the teleomorph.

***Rosellinula* R. Sant.**
Selected literature: Matzer & Hafellner 1990

***Rosellinula haplospora* (Th.Fr. & Almq.) R. Sant.**
Syst. Ascomycetum 5: 311 (1986)
Hosts in Italy: *Aspicilia caesiocinerea, A. cinerea*, Aspicilia* sp. (thallus).
TAA: Arnold 1888a: 14, Hafellner 1985a, Matzer & Hafellner 1990.

***Sagediopsis* (Sacc.) Vain.**
Selected literature: Triebel 1989, 1993, Halıcı & al. 2017

***Sagediopsis barbara* (Th. Fr.) R. Sant. & Triebel**
Bibl. Lichenol. 35: 110 (1989)
Hosts in Italy: *Porpidia rugosa** (thallus).
TAA: Triebel 1989.

***Sagediopsis campsteriana* (Linds.) D.Hawksw. & R.Sant.**
Meddel. Grønl., Biosci. 31: 63 (1990)
Hosts in Italy: *Lecanora chlarotera* (thallus).
SIC: Grillo & Cristaudo 1995.
Note: A dubious record, as *S. campsteriana* seems to be restricted to *Ochrolechia* spp.

***Sagediopsis fissurisedens* Hafellner**
Herzogia 9: 757 (1993)
Hosts in Italy: *Aspicilia myrinii** (thallus).
FVG: Tretiach & Hafellner 2000.

***Sarcogyne* Flot.**
Selected literature: Knudsen & Kocourková 2008b, Knudsen & al. 2020.

Sarcogyne pusilla* Anzi
Comm. Soc. Critt. Ital. 1(3): 157 (1862)
Syn.: *Polysporina pusilla* (Anzi) Nimis
Hosts in Italy: no host mentioned
ABR: Magnusson 1936: 59; **CAL**: Puntillo 1996; **EMI**: Zanfrognini 1902, Mameli & Agostini 1929, Magnusson 1936: 59, Zangheri 1966; **LOM**: Anzi 1862*: 157, Magnusson 1936: 59, Knudsen & Kocourková 2008b; **PIE**: Magnusson 1936; **PUG**: Magnusson 1936: 59; **TAA**: Arnold 1869c, 1879, Kernstock 1892a, Dalla Torre & Sarnthein 1902, Magnusson 1936: 59, Spitale & Nascimbene 2012; **VEN**: Massalongo 1855, Arnold 1876c.
Notes: As the species was originally recognised as a lichen, the reports do not mention a host; it is now considered as lichenicolous and perhaps algicolous. The record of Magnusson (1936: 59) from "Abruzzi e Molise" refers to the Majella, now in the region Abruzzo.

***Sarcopyrenia* Nyl.**
Selected literature: Navarro-Rosinés & al. 2009b.

***Sarcopyrenia gibba* (Nyl.) Nyl.**
Mem. Soc. Sci. Nat. Cherbourg 5: 337 (1857)
Hosts in Italy: *Lobothallia radiosa* (thallus).
LIG: B 2025.
Note: A short discussion is given in B 2025.

***Sarcopyrenia sigmoideospora* Tretiach & Nav.-Ros.**
Nova Hedwigia 62: 250 (1996)
Hosts in Italy: *Bagliettoa parmigera* agg. (thallus).
FVG: Tretiach & Navarro-Rosinés 1996.

***Sclerococcum* Fr. ex Fr.**
Selected literature: Ihlen & al. 2004a, Zhurbenko 2022b, Diederich & al. 2024l.
Note: The genus includes the former anamorph genus *Sclerococcum* and the teleomorph genus *Dactylospora*.

***Sclerococcum acarosporicola* Ertz & Diederich**
Bryologist 121: 395 (2018)
Bas.: *Karschia acarosporae* H. Magn.; Syn.: *Dactylospora acarosporae* (H. Magn.) Hafellner
Hosts in Italy: *Acarospora* sp. (thallus).
LIG: Hafellner 1979.

***Sclerococcum amygdalariae* (Triebel) Ertz & Diederich**
Bryologist 121: 395 (2018)
Bas.: *Dactylospora amygdalariae* Triebel
Hosts in Italy: *Amygdalaria panaeola* (thallus).
TAA: Triebel 1989, BSM 2006-2015.

***Sclerococcum athallinum* (Müll. Arg.) Ertz & Diederich**
Bryologist 121: 397 (2018)
Syn.: *Dactylospora athallina* (Müll. Arg.) Hafellner. – to be proved (see Hafellner in Ravera & al. 2025a): ¿*Abrothallus placophyllus* Anzi (1868), *Buellia placophylla* (Anzi) Jatta, *Dactylospora placophylla* (Anzi) Clauzade, Diederich & Cl. Roux.?
Hosts in Italy: *Baeomyces placophyllus, B. rufus** (thallus).
CAL: Puntillo 1996, Brackel & Puntillo 2016; **FVG**: Tretiach & Carvalho 1994; **LIG**: Brunialti & al. 1999; ¿**LOM**: Anzi 1868a: 177; Jatta 1909–1911: 768?; **MAR**: B 2015a; **TOS**: Benesperi & al. 2007; **VEN**: Ravera & al. 2025a.

***Sclerococcum attendendum* (Nyl.) Ertz & Diederich**
Bryologist 121: 397 (2018)
Syn.: *Dactylospora attendenda* (Nyl.) Arnold
Hosts in Italy: *Lecanora chlarotera, Pilophorus cereolus** (thallus).
SAR: Brackel & Berger 2019; **TAA**: Arnold 1887a: 89, BSM 2006-2011[1)].

[1)] Parasitisch auf *Philoph. Cereolus* (Ach.) an Syenitblöcken am Fusse der Margola bei Predazzo in Südtirol, 11.08.1880, F. Arnold (M-0041351, M-0041352).

***Sclerococcum australe* (Triebel & Hertel) Ertz & Diederich**
Bryologist 121: 397 (2018)
Bas.: *Dactylospora australis* Triebel & Hertel
Hosts in Italy: *Porpidia zeoroides*, *Porpidia* sp. (thallus and apothecia).
EMI: Tretiach & al. 2008; **TAA**: Triebel 1989.

***Sclerococcum homoclinellum* (Nyl.) Ertz & Diederich**
Bryologist 121: 398 (2018)
Syn.: *Dactylospora homoclinella* (Nyl.) Hafellner
Hosts in Italy: *Lecanora chlarotera* (thallus and apothecia).
MOL: B 2020; **TAA**: Hafellner 1979.

***Sclerococcum lobariellum* (Nyl.) Ertz & Diederich**
Bryologist 121: 398 (2018)
Syn.: *Dactylospora lobariella* (Nyl.) Hafellner, *Monodictys fuliginosa* Etayo
Hosts in Italy: *Lobaria pulmonaria** (thallus).
BAS: B 2011a; **CAL**: Brackel & Puntillo 2016; **FVG**: B 2008c; **LIG**: B 2025; **PUG**: B 2011a; **TOS**: B 2008c, 2011a.
Note: Only recently has it been shown that *Monodictys fuliginosa* represents the anamorph of *Sclerococcum lobariellum*.

***Sclerococcum microsporum* (Etayo) Ertz & Diederich agg.**
Bryologist 121: 398 (2018)
Bas.: *Dactylospora microspora* Etayo
Hosts in Italy: sterile crust, *Melanohalea exasperata*, *Parmelina quercina* (thallus).
CAM: Tretiach 2004, Nimis & Tretiach 2004; **SIC**: Brackel & Puntillo 2023.
Note: *Sclerococcum microsporum* was described on *Catinaria atropurpurea*. Since then, it was reported from several unrelated hosts, unusual for a member of *Sclerococcum*. Therefore, we prefer to list the records morphologically similar to *S. microsporum* on hosts other than *Catinaria* under *S. microsporum* agg., pending further studies.

***Sclerococcum montagnei* Hafellner**
Herzogia 12: 139 (1996)
Hosts in Italy: *Lecanora rupicola** (thallus and rarely apothecia).
SIC: B 2008b.

***Sclerococcum parasitaster* (Nyl.) Ertz & Diederich**
Bryologist 121: 399 (2018)
Syn.: *Dactylospora parasitaster* (Nyl.) Arnold
Hosts in Italy: *Mycobilimbia sphaeroides** (thallus).
TAA: BSM 2006-2015[1)].
[1)] beschatteter Dolomitfels im Zirbenwald des Tschislesthals gegen die Regensburger

Hütte. Wolkenstein in Gröden. Tirol. Auf *Mycobilimbia sphaeroides*, 24.08.1893, F. Arnold (M-0041447, M-0041448).

***Sclerococcum parasiticum* (Flörke ex Spreng.) Ertz & Diederich**

Bryologist 121: 399 (2018)

Syn.: *Dactylospora parasitica* (Flörke ex Spreng.) Zopf., *Leciographa inspersa* (Tul.) Rehm, *Leciographa floerkei* Massal.

Hosts in Italy: *Blastenia ferruginea*, *Glaucomaria rupicola*, *Lepra albescens*, *L. albescens* var. *corallina*, *Ochrolechia* cf. *androgyna*, *O. pallescens*, *O. subviridis*, *Ochrolechia* sp., *Pertusaria albescens*, *P. amara*, *P. pertusa*, *Pertusaria pertusa* var. *rupestris*, *Pertusaria* sp. (thallus and soralia).

BAS: B 2011a; **CAL**: Puntillo 2011, Brackel & Puntillo 2016; **CAM**: B 2021; **EMI**: B 2015a; **LAZ**: B 2015a; **MAR**: B 2015a; **MOL**: B 2020; **PUG**: B 2011a; **SAR**: Nimis & Poelt 1987, Zedda & Sipman 2001, Rizzi & al. 2011, Brackel & Berger 2019; **SIC**: Grillo & Caniglia 2004, B 2008b; **TOS**: Baglietto 1871: 279, 1879, Hafellner 1979, Bellemère & Hafellner 1982, B 2025; **TAA**: Arnold 1872b: 301, Pfaff 1933: 55, BSM 2006–2025.

***Sclerococcum parellarium* (Nyl.) Ertz & Diederich**

Bryologist 121: 399 (2018)

Syn.: *Dactylospora parellaria* (Nyl.) Arnold.

Hosts in Italy: *Ochrolechia parella** (thallus and apothecia).

SAR: Brackel & Berger 2019; **SIC**: B 2008b; **TOS**: BSM 2006-2015[1)].

[1)] Prov. di Livorno: Isola d'Elba, 3 km E of Capoliveri, Colle di Calagrande. 42°44'N, 10°25'E, 2–5 m alt. NE-exposed coastal rocks, on horizontal and inclined surface, on *Ochrolechia parella*, 17.04.1998, D. Triebel & G. Rambold (M-0041476).

***Sclerococcum pertusariicola* (Willey ex Tuck.) Ertz & Diederich**

Bryologist 121: 399 (2018)

Syn.: *Dactylospora pertusariicola* (Willey ex Tuck.) Hafellner

Hosts in Italy: *Ophioparma ventosa.*

¿**SAR**: Zedda & Sipman 2001?

Note: A dubious record, as *Ophioparma* is an unusual host for *S. pertusariicola*; nevertheless, the features given by Zedda & Sipman (loc. cit.) fit this species well.

***Sclerococcum protothallinum* (Anzi) Ertz & Diederich**

Bryologist 121: 399 (2018)

Bas.: *Abrothallus prothallinus* Anzi; Syn.: *Dactylospora protothallina* (Anzi) Hafellner

Hosts in Italy: *Parmeliella lepidiota* (as *Massalongia carnosa lepidora*)* (prothallus).

LOM: Anzi 1860*: 116, Jatta 1909–1911:768, Hafellner 1979.

***Sclerococcum purpurascens* (Triebel) Ertz & Diederich**

Bryologist 121: 399 (2018)

Bas.: *Dactylospora purpurascens* Triebel

Hosts in Italy: *Porpidia glaucophaea* (thallus).

LOM: Triebel 1989.

***Sclerococcum rimulicola* (Müll.Arg.) Ertz & Diederich**

Bryologist 121: 400 (2018)

Syn.: *Dactylospora rimulicola* (Müll.Arg.) Hafellner.

Hosts in Italy: *Aspicilia* sp., *Pertusaria ocellata* (thallus).

TOS: Nimis et al 1990: 11; **SIC**: Alstrup 2004; **SAR**: Nimis & Poelt 1987.

***Sclerococcum saxatile* (Schaer.) Ertz & Diederich**

Bryologist 121: 400 (2018)

Syn.: *Buellia saxatilis* (Schaer.) Körb., *Dactylospora saxatilis* (Schaer.) Hafellner

Hosts in Italy: *Lepra albescens*, *Pertusaria flavicans, P. pertusa* var. *rupestris*, *Pertusaria* sp. (thallus).

CAL: Brackel & Puntillo 2016; **CAM**: Jatta 1892b: 209, BSM 2006–2025[1)]; **FVG**: Tretiach & Hafellner 2000; **LIG**: Hafellner 1979; **LOM**: Anzi 1860: 88, 1861–1873 № 486, Hafellner 1979, BSM 2006–2025[2)]; **PIE**: Baglietto & Carestia 1867, 1880, Ravera & al. 2025a; **SAR**: Brackel & Berger 2019; **TAA**: Arnold 1896a: 77, Lettau 1958: 143, Hafellner 1979, BSM 2006–2025[3)]; **TOS**: van den Boom & Aptroot 1990, BSM 2006–2025[4)], Tretiach & al. 2008; **VAO**: Ravera & al. 2025a; **VEN**: Nascimbene & al. 2021.

[1)] Ad rupes in insula Inarime, 1880, A. Jatta (M-0041513); Exsicc: Jatta, Lich. Ital. Merid. Exs. [2)] Ad rupes graniticas umbrosas prov. Sondriensis, et præsertim in valle Malenco., wthout date, M. Anzi, Anzi, Lich. Rar. Langob. Exs. (M-0041497). – Ad rupes granitaceas in locis ventosis montium, et alpium Bormiensium. without date, M. Anzi, Anzi, Lich. Rar. Langob. Exs. (M-0041496). – Exmonte Corno di Canzo misit Garovaglio. without date (M-0041526). – Ad rupes granitaceas in locis ventosis montium, et alpium Bormiensium, without date, M. Anzi (M-0041496). [3)] Prov. Bolzano: Val Gardena (Grödner Tal), Ortisei (St. Ulrich), c. 2 km NEE of centre, road 242 Ponte Gardena (Waidbruck) - Ortisei, 46°35'N, 11°39'E. In and at margin of Pinus-Picea-dominated forest on steep SE-exposed slope, on porphyric boulders. 1150-1250 m, on *Pertusaria* sp., 15.09.1991, D. Triebel & G. Rambold (M-0041501). – Porphyrwand an der Straße gegen St. Peter/St. Ulrich in Gröden. Tirol. 08.1895, F. Arnold (M-0041502, M-0041505, M-0041508, M-0041512). – Predazzo - Südtirol. 08.1879, F. Arnold (M-0041518). – [Tirol] St. Ulrich, Porphyr. 08.1896, M. Lederer (M-0041527). [4)] N Firenze, road Scarperia-Firenzuola, on granite, 850 m alt., 14.08.1986, P. van den Boom (M-0045661).

***Sclerococcum serusiauxii* Boqueras & Diederich**

Mycotaxon 47: 428 (1993)

Hosts in Italy: *Parmelina quercina*, *P. tiliacea* (thallus).

BAS: B 2011a; **SAR**: Brackel & Berger 2019.

***Sclerococcum sphaerale* (Ach. ex Ficinus & Schubert) Fr.**

Syst. orb. 1: 173 (1825)

Syn.: *Acolium corallinum* Hepp

Hosts in Italy: *Lepra corallina**, *Pertusaria aspergilla* (= *dealbescens*) (thallus).

FVG: Tretiach & Hafellner 2000; **EMI**: Tretiach & al. 2008; **LOM**: Ravera & al. 2025a; **PIE**: BSM 2006–2025[1)], Ravera & al. 2025a; **SAR**: Nimis & Poelt 1987; **TOS**:

BSM 2006–2025[2)], Ravera & al. 2025a; **TAA**: Kernstock 1890: 322, 1896: 283, Hawksworth 1975a, 1979, Hafellner & Sancho 1990; **VAO**: Ravera & al. 2025a.

[1)] Riva: sul tallo sterile della *Pertusaria ocellata* ß *corallina*, sui massi delle frane. Without date, A. Carestia; Rabenhorst, Lich. Europ. Exs. (M-0043323, M-0043324). [2)] Prov. di Livorno: Isola d'Elba, 1 km SW of Rio nell' Elba, Le Panche. 42°48'N, 10°24'E, c. 380 m alt. NW-facing slopes of Cima del Monte, near the walking trail to the summit, boulders in macchia heath. On *Pertusaria* sp., 22.04.1998, D. Triebel & G. Rambold (M-0043320).

***Sclerococcum urceolatum* (Th. Fr.) Ertz & Diederich**

Bryologist 121: 400 (2018)

Syn.: *Dactylospora urceolata* (Th. Fr.) Arnold, *Leciographa urceolata* (Th. Fr.) Körb.

Hosts in Italy: *Protothelenella sphinctrinoides*, white sterile crust (thallus).

TAA: Kernstock 1895: 217, Lettau 1958: 144, Mayrhofer & Poelt 1985: 55, BSM 2006–2025[1)].

[1)] Rhododendronhügel am nördlichen Aufstiege zum langen Stein. St. Gertraud – Südtirol. Tirol. Auf *Protothelenella sphinctrinoides*, 08.1881, F. Arnold (M-0041555).

***Scutula* Tul.**

Selected literature: Triebel & al. 1997, Triebel & Kainz 2004, Wedin & al. 2007

Note: The lichenised species *S. heerii* is listed in the next chapter.

***Scutula epiblastematica* (Wallr.) Rehm**

Rabenh. Kryptogamenflora Deutschl. 1(3): 294 (1889)

Bas.: *Peziza epiblastematica* Wallr.; Syn.: *Scutula aggregata* (Bagl. & Carestia) Rehm.

Hosts in Italy: *Peltigera canina*, *P. didactyla*, *P. horizontalis*, *P. rufescens*, *Peltigera* spp. (thallus).

LOM[#]: De Notaris 1846: 195, Triebel & al. 1997, BSM 2006–2025[2)]; **PIE**[#]: Baglietto & Carestia 1865-1867: 304 (as *S. wallrothii* var. *aggregata*), Baglietto & Carestia 1880:300 (as *Biatorina wallrothii* var. *aggregata*), Triebel & al. 1997, BSM 2006–2025[1)]; **TOS**[#]; **TAA**[#]: Kernstock 1895: 217, Triebel & al. 1997; **VEN**[#].

[#]Jatta 1909–1911: 566.

[1)] Piemonte, sul tallo della *Peltigera horizontalis* e *canina* nelle adiacenze di Riva ed Alagna, in Val Sesia. Without date, A. Carestia (M-0043344). [2)] Lombardia, Brescia ("Brixia"). On *Peltigera canina*, without date, V. de Cesati (M-0043349).

***Scutula miliaris* (Wallr.) Trevis.**

Spighe e Paglie: 10 (1853)

Bas.: *Peziza miliaris* Wallr.

Hosts in Italy: *Peltigera* cf. *rufescens* (thallus)

ABR: B 2015a; **LOM**: De Notaris 1846: 195.

***Scutula tuberculosa* (Th. Fr.) Rehm**

Syll. Fung. 18: 174 (1906)

Syn.: *Biatorina krempelhuberi* (Körb.) Arnold, *Scutula krempelhuberi* Körb., *Scutula solorinaria* (Nyl.) P. Karst.

Hosts in Italy: *Solorina saccata* (thallus).

PIE: Baglietto & Carestia 1880: 301, Jatta 1909–1911: 566; **TAA**: Arnold 1887a: 133 (as *Biatorina heerii* on *Solorina saccata*); **VEN**: B 2013b.

***Skyttea* Sherwood, D. Hawksw. & Coppins**

Selected literature: Sherwood & al. 1981, Diederich & Etayo 2000, 2004.

***Skyttea buelliae* Sherwood, D. Hawksw. & Coppins**

Trans. Brit. mycol. Soc. 75: 483 (1981)

Hosts in Italy: *Amandinea punctata** (thallus).

Italy (without site): Diederich & Etayo 2000.

***Skyttea heterochroae* Nav.-Ros. & Muniz**

Revista Catalana de Micologia 31: 80 (2009)

Hosts in Italy: *Pertusaria heterochroa** (thallus and apothecial warts).

CAM: Puntillo & Brackel 2017.

***Skyttea tephromelarum* Hafellner & Kalb**

Lichenes Neotropici Fasc. X: 15 (1988)

Hosts in Italy: *Tephromela atra* (thallus).

VEN: Triebel 1989 (as *Rhymbocarpus elachistophorus* on *Tephromela atra*), Diederich & Etayo 2000, Hafellner 2007b.

Note: The species was partly treated as synonymous to *S. elachistophora*, which seems to be confined to *Tylothallia biformigera* whereas *S. tephromelarum* is restricted to *Tephromela* spp. (see Hafellner 2007b).

***Sphaerellothecium* Zopf**

Selected literature: Roux & Triebel 1994, Cáceres & Triebel 2004, Diederich & Zhurbenko 2009, Gardiennet & Roux 2013

***Sphaerellothecium araneosum* (Rehm) Zopf**

Nova Acta Leopoldina 70: 178 (1897)

Bas.: *Sphaerella araneosa* Rehm.

Hosts in Italy: *Ochrolechia* cf. *androgyna*, *O. tartarea*, *Pertusaria* s. lat. sp. (thallus).

SAR: Brackel & Berger 2019; **SIC**: B 2008b; **TAA**: Arnold 1873a: 115, Keissler 1930: 399, Pfaff 1933: 56.

***Sphaerellothecium arnoldii* (A. Massal.) Hafellner**

Fritschiana 94: 27 (2019)

Syn.: *Tichothecium arnoldi(i)* A. Massal., *Polycoccum arnoldii* (Hepp) D. Hawksw.

Hosts in Italy: *Diploschistes scruposus* (thallus).

LOM: Anzi 1860: 115, Jatta 1909–1911: 839, Keissler 1930, Brackel 2010d.

***Sphaerellothecium atryneae* (Arnold) Roux & Triebel**

Bull. Soc. linn. Provence 45: 525 (1994)

Bas.: *Endococcus atryneae* Arnold, *Stigmidium atryneae* (Arnold) Hafellner.

Hosts in Italy: *Lecanora atrynea**, *L. swartzii* (apothecia).

TAA: Arnold 1887a: 115, Roux & Triebel 1994, Roux & al. 1995, BSM 2006–2025[1)]; **SAR**: Nimis & Poelt 1987.

[1)] auf Porphyr des Cavallazzo bei Paneveggio in Süd Tyrol, auf *Lecanora atrynea*, 08.1881, F. Arnold (M-0043414).

***Sphaerellothecium cladoniae* (Alstrup & Zhurb.) Hafellner**

Lichenologist 30: 114 (1998)

Hosts in Italy: *Cladonia foliacea* (p.p. as *convoluta*), *C.* cf. *grayi*, *C. monomorpha*, *C. pyxidata*, *C. pyxidata* f. *pocillum**, *C. rangiformis*, *C. symphycarpia*, *Cladonia* sp. (squamules, more rarely podetia).

ABR: B 2015a; **CAL**: Brackel & Puntillo 2016; **EMI**: B 2025; **FVG**: Hafellner & al. 2005c: 98; **LAZ**: B 2015a; **LIG**: B 2025; **LOM**: B 2013b; **MAR**: B 2025; **MOL**: B 2020; **SAR**: Brackel & Berger 2019; **TOS**: B 2015a; **UMB**: B 2025; **VEN**: B 2013b.

***Sphaerellothecium cladoniicola* E.S. Hansen & Alstrup**

Graphis Scripta 7: 35 (1995)

Hosts in Italy: *Cladonia* sp.

CAL: Puntillo 2011.

***Sphaerellothecium contextum* Triebel agg.**

Biblioth. Lichenol. 35: 76 (1989)

Hosts in Italy: *Lecanora gangaleoides, Protoparmelia badia* (thallus and apothecia).

SAR: Brackel & Berger 2019; **TAA**: Triebel 1989.

Note: According to Hafellner 1999a the species in the strict sense should be restricted to hosts of the genus *Sporastatia*.

***Sphaerellothecium griseae* Darmostuk & Guttová**

Herzogia 35: 121 (2022)

Hosts in Italy: *Solenopsora grisea** (thallus).

SIC: Darmostuk & al. 2022; **TOS**: Darmostuk & al. 2022.

***Sphaerellothecium icmadophilae* (R. Sant.) Zhurb.**

Mycologia Balcanica 5: 19 (2008).

Hosts in Italy: *Icmadophila ericetorum** (thallus).

TAA: Berger & Zimmermann 2021.

***Sphaerellothecium minutum* Hafellner**

Herzogia 9(3–4): 760 (1993)

Hosts in Italy: *Sphaerophorus fragilis** (thallus).

FVG: Tretiach & Hafellner 2000.

***Sphaerellothecium nimisii* Brackel & Puntillo**

Borziana 4: 20 (2023)

Hosts in Italy: *Xanthoparmelia conspersa*, *X. perrugata*, *X. pulla*, *X. tinctina* (apothecia).

CAM: Brackel & Puntillo 2023; **CAL**: Brackel & Puntillo 2023*; **SAR**: Brackel & Puntillo 2023.

***Sphaerellothecium parietinarium* (Linds.) Hafellner & V. John**
Herzogia 19: 168 (2006)
Hosts in Italy: *Xanthoria parietina* (apothecia and rarely thallus).
CAL: Brackel & Puntillo 2016; **CAM**: Puntillo & Brackel 2017; **SAR**: Ravera & al. 2022; **TOS**: B 2025.

***Sphaerellothecium parmeliae* Diederich & Etayo**
Lichenologist 30: 117 (1998)
Hosts in Italy: *Parmelia omphalodes*, *P. saxatilis**, *P. sulcata* (thallus).
ABR: B 2015a; **BAS**: B 2011a, new record below; **CAL**: Brackel & Puntillo 2016; **SAR**: Brackel & Berger 2019; **TAA**: Hafellner 2021a.
New record: **BAS**: Pollino, beech forest, 1600 m, on *Parmelia saxatilis* agg., leg. G. Potenza 04.09.2025, det. W. v. Brackel.

***Sphaerellothecium propinquellum* (Nyl.) Cl. Roux & Triebel**
Bull. Soc. Linn. Provence 45: 530 (1994)
Hosts in Italy: *Lecanora carpinea*, *L. leptyrodes,* (apothecia and thallus).
ABR: Nimis & Tretiach 1999; **UMB**: B 2025.

***Sphaerellothecium pumilum* (Lettau) Nav.-Ros., Cl. Roux & Hafellner**
Rev. Catalana Micol. 39: 118 (2018)
Syn.: *Stigmidium pumilum* (Lettau) Matzer & Hafellner, *Sphaerellothecium aipolium* Vouaux ex Nav.-Ros. & Cl. Roux
Hosts in Italy: *Physcia aipolia, P. stellaris, P. tribacia (thallus).*
ABR: B 2015a; **LAZ**: B 2015a; **LIG**: Navarro-Rosinés & Roux 2017.
Note: The specimens on *Phaeophyscia orbicularis* and on *Physconia perisidiosa* from ABR, LAZ and SIC (B 2008b, 2015a) are dubious (Navarro-Rosinés & al. 2018). See also comments in B 2015a.

***Sphaerellothecium thamnoliae* Zhurb.**
Lichenologist 44 (2): 164 (2012)
Hosts in Italy: *Thamnolia vermicularis** (thallus).
PIE: Zimmermann & Berger 2021; **TAA**: Zimmermann & Berger 2021.

***Sphinctrina* Fr.**
Selected literature: Löfgren & Tibell 1979, Puntillo & Puntillo 2009, Muñiz & Hladun 2011, Muñiz & al. 2013, Ravera & Puntillo 2014.

***Sphinctrina anglica* Nyl.**
Mem. Soc. Imp. Sci. nat. Cherbourg 5: 334 (1857/1858)
Syn.: *S. microcephala* Sm. pp., *S. microscopica* Anzi, *Calicium microscopicum* (Anzi) Jatta.

Hosts in Italy: *Protoparmelia oleaginea* (thallus).

LOM: Anzi 1860: 98, Jatta 1909-11: 125, Körber 1859-1865: 288, Löfgren & Tibell 1979, Nimis 1993, Puntillo & Puntillo 2009, Nimis 2026; **TAA**: Arnold 1869c: 628, Kernstock 1891: 720, 1893a: 406, Magnus 1905: 361, BSM 2006–2025[1)], Nimis 2026.

[1)] Supra Lanzàda in valle Malenco, ad laricum corticem / ad nudos exsiccatosque Pini piceae ramos lignaque sepium circa Bormiu (Campello, Piatta), without date, M. Anzi, Anzi, Lich. Rar. Langob. Exs. (M-0032705).

Note: Older reports do not mention a host, as the species was supposed to be lichenised.

***Sphinctrina leucopoda* Nyl.**

Lich 1: 144 (1860)

Hosts in Italy: *Lepra albescens*, *Ochrolechia parella*, *Pertusaria pertusa*(*), *P. pertusa* var. *rupestris*, *Pertusaria* sp., *Protoparmelia badia*, sterile saxicolous crust (thallus).

ABR: Nascimbene & al. 2021; **CAL**[#]: Boom & Aptroot 1990, Puntillo 1996; **CAM**[#]: Nimis & Tretiach 2004, Garofalo & al. 2010; **LAZ**[#]; **MAR**[#]: Nimis & Tretiach 1999; **SAR**: Nimis & Poelt 1987, Brackel & Berger 2019; **SIC**: Grillo & Caniglia 2004, B 2008b; **TOS**[#]: Nimis & al. 1990; **UMB**[#]: Ravera 1998a, Ravera & al. 2006.

[#]Puntillo & Puntillo 2009.

***Sphinctrina tubaeformis* A. Massal.**

Memorie Lichenographiche: 155 (1853)

Syn.: *Sphinctrina tubiformis* A. Massal., S. microcephala Nyl.

Hosts in Italy: *Pertusaria alpina*, *P. hymenea*, *P. leioplaca*(*), *P. pertusa*, *Pertusaria* spp., *Trapelia elacista* (thallus).

CAL: Puntillo 1996; **CAM**: Terracciano 1872, Ricciardi & al. 2000; **FVG**: Puntillo & Puntillo 2009; **LAZ**: Nimis 1988; **LIG**: Puntillo & Puntillo 2009, Jatta 1909–1911: 118, Nimis 1993; **LOM**: Anzi 1860: 98, Nádvorník 1941; **PIE**: Baglietto & Carestia 1865–1867: 368, 1880: 249; **PUG**: Jatta 1875: 238, B 2011a; **SAR**: Baglietto 1879: 94, Nimis & Poelt 1987, Rizzi & al. 2011; **TOS**: Anzi 1862: 161, Baglietto 1871: 256, Löfgren & Tibell 1979; **TAA**: Nascimbene & al. 2007b; **VEN**: Massalongo 1855c, Anzi "Lich. Ven." 110, Körber 1859-1865: 287, Heufler 1871, Trevisan "Lichen Ven." 296, Saccardo 1894, Nádvorník 1941, Löfgren & Tibell 1979, Tibell 1996, Caniglia & al. 1985, Lazzarin 2000b.

Note: Many of the mentioned records are repeated or listed in: Puntillo & Puntillo 2009, Jatta 1909–1911: 118, Nimis 1993/2025.

***Sphinctrina turbinata* (Pers.) Fr.: Fr.**

Giorn. Bot. Ital. 2: 314 (1846)

Syn.: *Acolium stigonellum* (Ach.) De Not.

Hosts in Italy: *Lepra amara*, *Ochrolechia parella*, *Pertusaria flavicans*, *P. hymenea*, *P. pertusa*(*), *Pertusaria pertusa* var. *rupestris* (thallus and ascomatal warts).

ABR: Nimis & Tretiach 1999, Corona & al. 2016; **BAS**; Jatta 1889, Potenza 2006, Potenza & Fascetti 2012; **CAL**: Jatta 1889, Puntillo 1996, BSM 2006–2025[1)], Brackel & Puntillo 2016; **CAM**: Jatta 1889, 1892b: 210, Aprile & al. 2003b, Garofalo & al. 2010; B 2021; **EMI**: Avetta 1898, Nimis 1985b; **LAZ**: Ravera 2001, 2002, Massari & Ravera 2002; **LIG**: Jatta 1909–1911: 118; **LOM**: Anzi 1860: 98, Stizenberger 1882, Löfgren & Tibell

1979, Nimis 1985b, BSM 2006–2025[2)]; **MOL**: Caporale & al. 2008, B 2020; **PIE**: Baglietto & Carestia 1865-1867: 368, 1880: 249; **PUG**: Jatta 1886: 86, 1889, Löfgren & Tibell 1979; BSM 2006–2025[3)]; **SAR**: Nimis & Poelt 1987, BSM 2006–2025[4)], Rizzi & al. 2011, Cossu 2013, Brackel & Berger 2019; **SIC**: Grillo & Romano 1989, Grillo 1993, Grillo & Cristaudo 1995, Nimis & al. 1994, Ottonello & al. 2011; **TOS**: Anzi 1862: 160, Baglietto 1871: 255, Saccardo 1894, Tassi 1898; **UMB**: Ravera & al. 2011; **VEN**: Nascimbene & Marini 2010.

[1)] Consenza, in loco Piano de Marco dicto prope Monte Mula, alt. 1020 m s. m. In thallo *Pertusariae pertusae*, ad corticem *Quercus cerris*, 14.05.1989, D. Puntillo, Vězda, Lich. Sel. Exs.(M-0043608). [2)] Ad thallum *Pertus. rupestris* in valle Malenco (Torre), without date, Anzi, Lich. Exs. Minus Rari Ital. Super. (M-0043582). [3)] Ad *Pertusarium* in sylvis Apuliae, 1899, A. Jatta (M-0043604). [4)] Provinz Nuoro: oberhalb Cala Gonone auf *Quercus ilex*, auf *Pertusaria pertusa*, 17.04.1971, H. Wunder (M-0043549). Prov. Nuoro, Monte Arbo. Alt. 900 m; 9°24'E 39°51'N, on *P. pertusa*, 07.1987, A. Aptroot (M-0045460). Prov. Nuoro, Monte Arcueri. Alt. 950 m; 9°21'E 39°49'N, on *Pertusaria flavicans*, 07.1987, A. Aptroot (M-0045461).

Note: Many of the mentioned records are repeated or listed in: Puntillo & Puntillo 2009, Jatta 1909–1911: 118, Nimis 1993/2025; further records in Nimis 2026.

***Spirographa* Zahlbr.**

Selected literature: Punithalingam 2003, Flakus & al. 2019b.

Note: The genus includes the former anamorph genus *Cornutispora* and the teleomorph genus *Spirographa*. Both the teleomorph and the anamorphs have been used until now in a very broad concept, but most probably the species of *Spirographa* are quite specific.

***Spirographa ciliata* (Kalb) Flakus, Etayo & Miądlikowska**

Plant and Fungal Systematics 64(2): 322 (2019)

Bas.: *Cornutispora ciliata* Kalb.

Hosts in Italy: *Ochrolechia pallescens*, *O. subviridis* (thallus).

CAL: Brackel & Puntillo 2016; **SAR**: Brackel & Berger 2019.

***Spirographa fusisporella* (Nyl.) Zahlbr. agg.**

Lichenes, Engler-Prantl, Natürl. Pflanzenfam., ed. 1, I, 1: 96 (1903)

Hosts in Italy: *Lepra amara*, *Pertusaria pertusa* (thallus).

CAL: Brackel & Puntillo 2016; **TOS**: B 2015a.

Note: *Pleospilis* sp., reported for Sardinia by Nimis & Poelt (1987) on *Aspicilia* sp. and cited as *S. fusisporella* by Kalb & al. (1995), proved to be *Paralethariicola aspiciliae* (Calatayud & al. 2001). *Spirographa fusisporella* s. str. is restricted to hosts of the family Graphidaceae (Flakus & al. 2019b).

Spirographa giselae* (Brackel) Flakus, Etayo & Miądlikowska

Plant and Fungal Systematics 64(2). 324 (2019)

Bas.: *Asteroglobolus giselae* Brackel

Hosts in Italy: *Ramalina farinacea**; possibly hyperparasite on *Lichenopeltella ramalinae*.

BAS: Brackel 2011a*; **CAM**: B 2021; **MOL**: B 2020; **SAR**: Zimmermann & Feusi 2021; **SIC**: Brackel 2011a.

Note: The description of the anamorph is given in B 2011a, of the teleomorph in Flakus & al. 2019b; a short discussion on the biological status is given in B 2020 and in B 2021.

***Spirographa intermedia* (Punith. & D. Hawksw.) Flakus, Etayo & Miądlikowska agg.**

Plant and Fungal Systematics 64(2): 328 (2019)

Bas.: *Cornutispora intermedia* Punith. & D. Hawksw.

Hosts in Italy: *Flavoparmelia caperata*, *Physcia* sp., *Rinodina sophodes*, *Romjularia lurida* (thallus and apothecia).

CAM: B 2021; **EMI**: B 2025; **LOM**: B 2013b; **TOS**: B 2015a.

Note: The host of the type specimen is *Ochrolechia*, so all specimens growing on other hosts should be assigned to the aggregate. *Spirographa intermedia* is known until now only in its anamorphic state.

***Spirographa lichenicola* (D. Hawksw. & B. Sutton) Flakus, Etayo & Miądlikowska**

Plant and Fungal Systematics 64(2): 328 (2019)

Bas.: *Cornutispora lichenicola* D. Hawksw. & B. Sutton.

Hosts in Italy: *Cladonia polydactyla, Evernia prunastri, Flavoparmelia caperata, Hypogymnia tubulosa*, *Lecidella euphorea, Lepraria* sp., *Parmelia saxatilis*, *Parmeliopsis ambigua, Parmotrema perlatum, P. reticulatum, Pertusaria pertusa, Ramalina fastigiata*, *Rhizoplaca chrysoleuca*, *Nephromopsis chlorophylla* (thallus and apothecia).

EMI: Tretiach & al. 2008; **LAZ**: B 2015a; **PIE**: Motiejūnaitė & Grochowski 2014; **LOM**: B 2010d; **SAR**: Brackel & Berger 2019; **SIC**: B 2008b; **TOS**: B 2015a, 2025; **TAA**: Hawksworth 1981a, B 2013b.

Note: The host of the type is *Parmelia sulcata*; it is not yet clear whether all the specimens from other hosts belong to the same species. *Spirographa lichenicola* is known until now only in its anamorphic state and there might be more species with morphologically similar conidia.

***Spirographa pyramidalis* (Etayo) Flakus, Etayo & Miądlikowska**

Pl. Fung. Syst. 64(2): 331 (2019)

Bas.: *Cornutispora pyramidalis* Etayo.

Hosts in Italy: *Flavoparmelia caperata* (thallus).

LAZ: B 2015a.

Note: The Italian specimen represents the anamorph of the species.

***Spirographa triangularis* (Diederich & Etayo) Flakus, Etayo & Miądlikowska**

Plant and Fungal Systematics 64(2): 332 (2019)

Bas.: *Cornutispora triangularis* Diederich & Etayo.

Hosts in Italy: *Pertusaria pertusa** (ascomatal warts).

MOL: B 2020; **SAR**: Brackel & Berger 2019; **TOS**: B 2025.

Note: A short description is given in B 2020. All Italian specimens represent the anamorph of the species.

***Sporidesmiella* P.M. Kirk**

Selected literature: Diederich & Braun 2024a.

***Sporidesmiella lichenophila* U. Braun & Heuchert**

Herzogia 23: 70 (2010)

Hosts in Italy: *Ramalina fastigiata* (thallus).

SAR: Brackel & Berger 2019.

***Sporidesmium* Link**

Selected literature: Diederich 2024d.

***Sporidesmium bacidiicola* Alstrup**

Graphis Scripta 3(2): 44 (1991)

Hosts in Italy: *Physcia tenella* (thallus).

SIC: Ravera & al. 2018a.

Note: Diederich 2024d doubts the lichenicolous habit of the type specimen of the species. Nevertheless, we found it clearly lichenicolous on *Physcia* in Germany as well as in Italy; maybe this is a morphologically similar but genetically different taxon.

***Stenocybe* Körb.**

Selected literature: Tibell 1999a, Ravera & Puntillo 2014.

***Stenocybe major* Körb.**

Systema lichenum Germaniae: 306 (1855)

Hosts in Italy: *Loxospora elatina*, *Loxospora* sp. (thallus).

LOM: Puntillo & Puntillo 2009; **PIE**: Isocrono & al. 2004, Puntillo & Puntillo 2009; **TAA**: Puntillo & Puntillo 2009, Nascimbene & al. 2014, Nascimbene 2014.

Note: The species usually is treated as a saprophyte on bark, but evidently it grows often (or always?) on or together with the thalli of *Loxospora*-species or *Arthonia leucopellaea* (see Nimis 2023, Wirth & al. 2013).

***Stigmidium* Trevis.**

Selected literature: Roux & Triebel 1994, Triebel & Cáceres 2004.

***Stigmidium acetabuli* Calatayud & Triebel**

Biblioth. Lichenol. 78: 28 (2001)

Hosts in Italy: *Pleurosticta acetabulum** (apothecia).

BAS: B 2011a; **CAL**: Brackel & Puntillo 2016; **SIC**: B 2008b.

***Stigmidium arthoniae* (Arnold) Hafellner**

Herzogia 10: 23 (1994)

Bas.: *Spaerella arthoniae* Arnold, *Pharcidia arthoniae* (Arnold) Arnold

Hosts in Italy: *Arthonia radiata** (as *A. astroidea*) (thallus).

TAA: Arnold 1872b: 304, 1874a: 152, 175, Keissler 1930: 365, Pfaff 1933: 56.

***Stigmidium cerinae* Cl. Roux & Triebel**

Bull. Soc. Linn. Provence 45: 480 (1994)

Hosts in Italy: *Caloplaca stillicidiorum** (p.p. as var. *muscorum*) (apothecia).

TAA: Hafellner 1994b, Roux & Triebel 1994, BSM 2006–2025[1)].

[1)] Prov. Trento, Blockfeld am Fuß der Geröllhalde am NW-Fuß des Cimone della Palta. Alt. c. 2200 m, auf *Caloplaca stillicidiorum*, 13.08.1968, H. Wunder (M-0043650, M-0044282).

***Stigmidium cladoniicola* Zhurb. & Diederich**

Graphis Scripta 20: 13 (2008)

Hosts in Italy: *Cladonia gracilis*, *C.* cf. *grayi*, *C. polydactyla*, *C. squamosa* (squamules and podetia).

SAR: Brackel & Berger 2019; **TOS**: B 2015a, 2025.

***Stigmidium collematis* Cl. Roux & Triebel**

Bull. Soc. linn. Provence 45: 483 (1994)

Hosts in Italy: *Enchylium polycarpon** (thallus).

TAA: Arnold 1876c: 414 (as *Pharcidia schaereri* var. *croceae* on *Lethagrium polycarp.*), Roux & Triebel 1994, Roux & al. 1995 (probably not VEN as indicated in Roux & Triebel 1994, as Arnold collected in Tyrol and the top of the Monte Piano is located in TAA).

***Stigmidium congestum* (Körb.) Triebel**

Mycotaxon 42: 290 (1991)

Bas.: *Pharcidia congesta* Körb.

Hosts in Italy: *Glaucomaria carpinea*, *Lecanora chlarotera* agg.*, *L. glabrata*, *L. pulicaris*, *L. salicicola*, *L. subrugosa*, *Lecanora* "*subfusca*" (apothecia).

ABR: Nimis & Tretiach 1999; B 2015a; **BAS**: B 2011a; **CAL**: Brackel & Puntillo 2016; **CAM**: Jatta 1880: 242; **EMI**: B 2025; **LAZ**: B 2015a; **LOM**: Roux & Triebel 1994, BSM 2006–2025[1)]; **MOL**: BSM 2006–2025[2)]; **PUG**: Jatta 1875: 238, Nimis & Tretiach 1999; **SAR**: Nimis & Poelt 1987 (as *S. schaereri* on *Lecanora* cf. *chlarotera*), Brackel & Berger 2019; **SIC**: B 2008a,b; **TAA**: Kernstock 1892b: 349, 1896: 302; **TOS**: B 2015a, 2025.

[1)] Monte Nota am Passo di Tremalzo, Südhang am C. Bandiera oberhalb Passo Bestana, 1250-1350 m. An *Fagus* W-exponiert, auf *Lecanora pulicaris*, 01.07.1984, G. Rambold (M-0043675). [2)] Prov. Campobasso: Apennin Monte Castelbarone. 41°51'36''N, 14°21'53''E. An Rinde von *Quercus* im Buchenwald (*Fagus sylvatica*), auf *Lecanora subrugosa*, 05.05.1997, H. Hertel (M-0043671).

Note: A short description is given in B 2015a.

***Stigmidium degelii* R. Sant.**

Graphis Scripta 5: 3 (1993)

Hosts in Italy: *Pectenia plumbea* (thallus and apothecia).

CAL: Brackel & Puntillo 2016.

***Stigmidium eucline* (Nyl.) Vězda**

Česka Mykologie 24: 228 (1970)

Syn.: *Pharcidia microspila* var. *pertusariae* B. de Lesd.

Hosts in Italy: *Lepra albescens*, *Pertusaria pertusa, Varicellaria lactea**, (thallus).

EMI: Tretiach & al. 2008; **FVG**: Tretiach & Hafellner 2000; **LIG**: B 2025; **SAR**: Nimis & Poelt 1987.

Note: According to Kocourková & Knudsen (2010) *S. aggregatum* (Mudd) D. Hawksw. is confined to hosts of the genus *Aspicilia* and not synonymous to *S. eucline*.

***Stigmidium frigidum* (Th. Fr. ex Sacc.) Alstrup & D. Hawksw.**

Meddel. Grønl., Biosci. 31: 67 (1990)

Hosts in Italy: *Thamnolia vermicularis** (thallus).

FVG: Tretiach & Hafellner 2000; **TAA**: Zimmermann & Berger 2021.

***Stigmidium fuscatae* (Arnold) R. Sant.**

Thunbergia 6: 17, № 147 (1988)

Bas.: *Pharcidia lichenum* f. *fuscatae* Arnold; Syn.: *Arthopyrenia lichenum* f. *fuscatae* Arnold.

Hosts in Italy: *Acarospora fuscata** (thallus).

LOM: B 2010d; **PIE**: Brackel & Isocrono in prep.; **SAR**: Brackel & Berger 2019; **SIC**: B 2008b; **TAA**: Arnold 1872b*: 302, 1887a: 92, Kernstock 1892b: 349, 1895: 203, Pfaff 1933: 56, BSM 2006–2025[1)]; **VAO**: Vouaux 1912: 238.

[1)] Turmalingranit des Gran Mulatt bei Predazzo Südtirol, auf *Acarospora fuscata*, 08.1882, F. Arnold (M-0043705).

***Stigmidium hageniae* (Rehm) Hafellner**

Thunbergia 6: 8 (1988)

Hosts in Italy: *Anaptychia ciliaris** (thallus).

MOL: B 2020 **; SAR**: Brackel & Berger 2019.

Stigmidium hypogymniae* Brackel

Borziana 4: 24 (2023)

Hosts in Italy: *Hypogymnia tubulosa** (thallus).

CAL: Brackel & Puntillo 2023*.

***Stigmidium lecidellae* Triebel, Roux & Le Coeur**

Can. J. Bot. 73: 663 (1995)

Hosts in Italy: *Lecidella elaeochroma** (apothecia).

CAL: Brackel & Puntillo 2023; **CAM**: B 2021; **LAZ**: B 2015a; **PUG**: B 2011a; **SAR**: Nimis & Poelt 1987, Roux & al. 1995, Brackel & Berger 2019; **SIC**: B 2008b.

Note: In the past often reported as *Stigmidium schaereri* (Massal.) Trevis.; the genuine *S. schaereri* is confined to the host *Dacampia hookeri* (Roux & al. 1995). A short description of *S. lecidellae* is given in B 2015a.

***Stigmidium leprariae* Zhurb.**

Graphis Scripta 19: 7 (2007)

Hosts in Italy: *Lepraria* sp. (thallus).

TOS: B 2025.

***Stigmidium lichenum* (Arnold) Triebel & P. Scholz**
Sendtnera 7: 226 (2001)
Bas.: *Arthopyrenia lichenum* Arnold; Syn.: *Pharcidia lichenum* (Arnold) Arnold.
Hosts in Italy: *Verrucaria maculiformis** (thallus).
TAA: BSM2006–2025[1)].
[1)] Kalkgerölle beim unteren Schneefeld an der Nordseite des Latemar. Karerpass. Südtirol, 06.08.1899, F. Arnold (M-0043723).

***Stigmidium microspilum* (Körb.) D. Hawksw.**
Kew Bull. 30: 201 (1975)
Hosts in Italy: *Graphis scripta** (thallus).
CAL: Brackel & Puntillo 2016; **CAM**: B 2021; **FVG**: Tretiach 1993, B 2013b; **LAZ**: B 2015a; **TOS**: B 2015a, 2025; **VEN**: Thor & Nascimbene 2007.

***Stigmidium mycobilimbiae* Cl. Roux, Triebel & Etayo**
Bull. Soc. linn. Provence 45: 499 (1994)
Hosts in Italy: *Bryobilimbia hypnorum* , *Mycobilimbia tetramera* (thallus).
VEN: Roux & Triebel 1994, BSM 2006–2025[1)], B 2013b.
[1)] Auf dem Thallus der *Bilimbia obscurata* [= *Mycobilimbia tetramera*]. Val fondo bei Schluderbach – Ampezzo, 08.1874, F. Arnold (M-0043718).

***Stigmidium neofusceliae* Calatayud & Triebel**
Nova Hedwigia 69: 441 (1999)
Hosts in Italy: *Xanthoparmelia pulla** (thallus).
SIC: B 2008a,b.
Possibly also this specimen might belong to the species: **TAA**: Pfaff 1933: 56: "*Pharcidia lichenum* Arn. auf dem Thallus der *Parmelia prolixa* [=*Xanthoparmelia pulla*] in den Eislöchern."

***Stigmidium peltideae* (Vain.) R. Sant.**
Svensk. Bot. Tidskr. 54: 510 (1960)
Hosts in Italy: *Peltigera didactyla, P. cf. horizontalis*, *P. praetextata* (thallus).
EMI: B 2015a; **LAZ**: B 2015a; **SAR**: Brackel & Berger 2019; **TOS**: B 2015a; **TAA**: Roux & Triebel 1994, BSM 2006–2025[1)]; **VEN**: B 2013b.
[1)] steiniger Kalkboden auf der Kammhöhe ober der Alpe Vineghia bei Paneveggio in Südtirol, auf *Peltigera didactyla*, 08.1886, F. Arnold (M-0043735).

***Stigmidium placynthii* Cl. Roux & Nav.-Ros.**
Bull. Soc. linn. Provence 45: 515 (1944)
Hosts in Italy: *Placynthium nigrum** (thallus)
TAA: Arnold 1876c: 397, 414 (as *Pharcidia schaereri*).

***Stigmidium psorae* (Anzi) Hafellner**
Vězda, Lich. sel. exsicc. Fasc. 79: 7 (1984)
Bas.: *Sphaerella psorae* Anzi [Atti Soc. Ital. Sci. Nat.: 180 (1868)]

Hosts in Italy: *Psora decipiens** (thallus).

EMI: Nimis & al. 1996b, B 2025; **LOM**: Anzi 1868a*: 180, Triebel 1989; **TAA**: Triebel 1989.

***Stigmidium ramalinae* (Müll. Arg.) Etayo & Diederich**

Comun. Bot. Mus. Nac. Hist. Nat. Montevideo 6(129): 14 (2004)

Hosts in Italy: *Ramalina canariensis*, *R. farinacea* (thallus).

SAR: Brackel & Berger 2019; **TOS**: B 2015a.

***Stigmidium rivulorum* (Kernst.) Cl. Roux & Nav.-Ros.**

Bull. Soc. linn. Provence 44: 449 (1994)

Bas.: *Arthopyrenia rivulorum* Kernst.

Hosts in Italy: *Verrucaria aquatilis* agg.* (thallus).

TAA: Arnold 1893: 403, Kernstock 1895: 211, BSM 2006–2025[1)].

[1)] Tirolia australis. Supra thallum nigrum *Verrucariae aquatilis* parasitans ad lapillos in fossis quibus agri rigantur inter Bozen et Sigmundskron. (Locus classicus.), auf *Verrucaria aquatilis*, ohne Datum, E. Kernstock, Fritsch, Fl. Exs. Austro-Hung. (M-0032700, M-0043768). – An Geröllsteinen in den Bewässerungsgräben zwischen Bozen und Sigmundskron, 11-1892, E. Kernstock (M-0043764, M-0043767).

***Stigmidium rouxianum* Calatayud & Triebel**

Lichenologist 35: 109 (2003)

Hosts in Italy: *Acarospora cervina** (thallus, rarely apothecia).

TAA: Calatayud & Triebel 2003.

***Stigmidium schaereri* (A. Massal.) Trevis.**

Consp. Verruc.: 17 (1860)

Bas.: *Sphaeria schaereri* A. Massal.; Syn.: *Pharcidia schaereri* (A. Massal.) Arnold, *Sphaerella schaereri* (A. Massal.) Anzi.

Hosts in Italy: *Dacampia hookeri* (thallus).

LOM: Massalongo 1853a*[?], Anzi 1868a: 180, Roux & Triebel 1994, BSM 2006–2025[1)]; **TAA**: Arnold 1880b: 112, 1887a: 133, Roux & Triebel 1994, BSM 2006–2025[2)]; **VEN**: Roux & Triebel 1994. – doubtful: **CAM**: Nimis & Tretiach 2004, as no host is mentioned and on this site no *Dacampia hookeri* nor a *Solorina* is reported.

[1)] Supra thallum *lecideae Hookeri* in alpibus Bormiensibus, 08.1871, Anzi, Lich. Rar. Langob. Exs. (M-0043781). [2)] Kalkboden des Monte Piano, Schluderbach, Ampezzaner Alpen, 08.1874, F. Arnold (M-0043777). Kalkboden auf dem Castellazzo. Paneveggio in Südtirol, 08.1879, F. Arnold (M-0043990). Dolomitboden im Damers auf dem Schlern in Südtirol, 07.1867, F. Arnold (M-0043993). Auf *Dacampia* auf Erde eines niedrigen Kalkfelsens gegen die Lediniahütte ober dem Langethal bei Wolkenstein in Gröden. Tirol, 08.1896, F. Arnold (M-0043994).

Note: A hyperparasite specific on *Dacampia hookeri* on transformed *Solorina*. In the past the name "*S. schaereri*" was used for a wide range of specimens on different hosts. In the 19th century the host was called "*Lecidea Hookeri*".

***Stigmidium solenopsoricola* Darmostuk & Guttová**
Herzogia 35: 122 (2022)
Hosts in Italy: *Solenopsora candicans**, *S. liparina* (thallus).
SIC: Darmostuk & al. 2022; **TOS**: Darmostuk & al. 2022.

***Stigmidium solorinarium* (Vain.) D. Hawksw.**
Lichenologist 15: 14 (1983)
Hosts in Italy: *Solorina saccata* (thallus).
TAA: B 2013b; **VEN**: B 2013b.

***Stigmidium squamariae* (de Lesd.) Cl. Roux & Triebel**
Bull. Soc. linn. Provence 45: 511 (1994)
Hosts in Italy: *Protoparmeliopsis muralis**, *Lecanora polytropa*, *L. pruinosa* (apothecia).
CAL: Brackel & Puntillo 2016; **EMI**: B 2025; **LOM**: Anzi 1864: 27, 1861-1873 № 525b (as *Conida clemens*), Roux & Triebel 1994; **PIE**: Matteucci & al. 2019; **SIC**: B 2008a,b; **TAA**: Kernstock 1893: 309 (as *Pharcidia congesta* on *Lecanora polytropa*); **TOS**: B 2015a.
Note: A short description is given in B 2015a.

***Stigmidium tabacinae* (Arnold) Triebel agg.**
Biblioth. Lichenol. 35: 236 (1989)
Bas.: *Pharcidia tabacinae* Arnold (1881); Syn.: *Sphaerulina tabacinae* (Arnold) Vouaux. – The aggregate incl. *Stigmidium glebarum* (Arnold) Hafellner, *Arthopyrenia glebarum* Arnold (1887), *Pharcidia glebarum* (Arnold) Sacc.
Hosts in Italy: *Thalloidima opuntioides*, *T. sedifolia*, *Thalloidima* sp. (thallus).
CAL: Brackel & Puntillo 2016; **EMI**: Nimis & al. 1996b; **PIE**: Matteucci & al. 2019; **PUG**: B 2011a; **SAR**: Nimis & Poelt 1987; **SIC**: B 2008b; **TAA**: Arnold 1896a: 119 (as *Arthopyrenia glebularum* on *Toninia sedifolia*); **VEN**: Triebel 1989.
Note: Most probably *S. tabacinae* and *S. glebarum* are not conspecific but at present it is not possible to distinguish the two taxa.

***Pharcidia verrucariarum* (Arnold) Sacc. & D. Sacc.**
Syll. Fung. 17: 647 (1905)
Bas.: *Arthopyrenia verrucariarum* Arnold, Verh. Zool.-Bot. Ges. Wien 43: 388 (1893).
Hosts in Italy: no host given.
TAA: BSM 2006–2025[1)] (sub "*Stigmidium verrucariarum*").
[1)] Kalkfelsen auf dem Monte Castellazzo bei Paneveggio in Südtirol, 08.1878, F. Arnold (M-0043753, M-0043756).

***Stigmidium xanthoparmeliarum* Hafellner**
Bull. Soc. linn. Provence 44: 231 (1994)
Hosts in Italy: *Xanthoparmelia conspersa*, *X. protomatrae*, *X. pulla*, *X. stenophylla** (thallus).
CAL: Brackel & Puntillo 2016; **LIG**: B 2025; **SAR**: Brackel & Berger 2019; **TOS**: B 2015a, 2025; **TAA**: Hafellner 1994c, BSM 2006–2025[1)], B 2013b.

[1)] Südtirol, Vintschgau: Südseitige Trockenhänge ## Latsch, 800–900 m. Etwas beschatteter Gneisfelsen unter Gebüsch. Zusammen mit *Parmelia subrudecta* Nyl., auf *Xanthoparmelia somloensis*, 14.09.1973, J. Poelt & M. Steiner (M-0043757).

Note: A short description is given in B 2015a.

***Taeniolella* S. Hughes**

Selected literature: Heuchert & al. 2018, Heuchert & al. 2024b.

***Taeniolella cladinicola* Alstrup**

Graphis Scripta 5: 62 (1993)

Hosts in Italy: *Cladonia rangiferina* (thallus).

TAA: B 2013b.

***Taeniolella delicata* M.S. Christ & D. Hawksw.**

Bull. Br. Mus. nat. Hist. (Bot.) 6: 253 (1979)

Hosts in Italy: *Lecidella elaeochroma*, *Lepra albescens*, *Ochrolechia androgyna*, *Physcia adscendens*, *Physconia distorta* (thallus and apothecia).

EMI: B 2025; **MAR**: B 2025; **MOL**: B 2020; **SAR**: Brackel & Berger 2019**; TOS**: B 2016a; **UMB**: B 2025.

***Taeniolella friesii* (Hepp) Hafellner**

Herzogia 13: 140 (1998)

Hosts in Italy: *Strigula stigmatella** (thallus).

FVG: Hafellner 1998b.

Taeniolella glebarum* (Brackel) Diederich

Flora of Lichenicolous Fungi 2: 432 (2024)

Bas.: *Trimmatostroma glebarum* Brackel.

Hosts in Italy: *Flavoparmelia caperata** (thallus and soralia).

LIG: B 2025; **LAZ**: B 2015a; **PUG**: B 2015a; **SAR:** Brackel & Berger 2019; **TOS**: B 2015a*, B 2025.

Note: All records published before 2024 were reported as *Trimmatostroma glebarum* Brackel. The specimen 6921 from Toscana represents the type of the species; the description is given in B 2015a.

***Taeniolella pertusariicola* D. Hawksw. & H. Mayrhofer**

Meddel. Grønl., Biosci. 31: 72 (1990)

Hosts in Italy: *Lepra albescens*, *L. amara*, *Pertusaria pertusa*, *Pertusaria* sp. (ascomata).

CAL: Brackel & Puntillo 2016; **CAM**: B 2021; **LAZ**: B 2015a; **PUG**: B 2011a.

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

Bull. Br. Mus. nat. Hist. (Bot) 6: 255 (1979)

Hosts in Italy: *Phaeophyscia ciliata, P. orbicularis** (thallus).

BAS: B 2011a; **CAL**: Brackel & Puntillo 2016; **CAM**: B 2021; **FVG**: B 2013b, Brackel in prep.; **LAZ**: B 2015a; **LOM**: B 2010d; **MAR**: B 2025; **PUG**: B 2011a; **TAA**: B 2013b; **VDA**: (herb. D. Isocrono).

***Taeniolella punctata* M.S. Christ. & D. Hawksw.**
Bull Br. Mus. nat. Hist. (Bot.) 6: 257 (1979)
Hosts in Italy: *Graphis scripta** (thallus).
CAL: Brackel & Puntillo 2016.

***Talpapellis* Alstrup & M.S. Cole**
Selected literature: Heuchert & al. 2024b.

***Talpapellis beschiana* (Diederich) Zhurb., U. Braun, Diederich & Heuchert**
Fungal Systematics and Evolution 2: 231 (2018)
Bas.: *Taeniolella beschiana* Diederich.
Hosts in Italy: *Cladonia foliacea*, *C. incrassata*, *C. monomorpha*, *C. pocillum*, *C. pyxidata*, *C. rangiformis* (squamules, podetia).
EMI: B 2025; **LAZ**: B 2015a; **SAR**: Brackel & Berger 2019; **SIC**: B 2008a,b; **TOS**: B 2015a.

***Telogalla* Nik. Hoffm. & Hafellner**
Selected literature: Hoffmann & Hafellner 2000.

***Telogalla olivieri* (Vouaux) Nik. Hoffm. & Hafellner**
Biblioth. Lichenol. 77: 109 (2000)
Hosts in Italy: *Xanthoria calcicola*, *X. parietina* (thallus).
ABR: B 2015a; **BAS**: B 2011a; **CAL**: Brackel & Puntillo 2016, 2023; **CAM**: B 2021; **EMI**: B 2025; **LAZ**: B 2015a, 2025; **LOM**: B 2010d; **MAR**: B 2015a, 2025; **MOL**: B 2020; **PUG**: B 2011a; **SAR**: Brackel & Berger 2019; **SIC**: B 2008a,b; **TOS**: B 2015a, 2025; **UMB**: B 2015a, 2025.

***Tetramelas* Norman**
Selected literature: Giralt & Clerc 2011

***Tetramelas pulverulentus* (Anzi) A. Nordin & Tibell**
Lichenologist 37: 497 (2005)
Bas.: *Abrothallus pulverulentus* Anzi, *Arthonia muscigenae* (Anzi) Jatta, Buellia pulverulenta (Anzi) Jatta, *Celidium muscigenae* Anzi, Diplotomma pulverulentum (Anzi) D. Hawksw.
Hosts in Italy: *Physconia distorta*, *P. enteroxantha*, *P. muscigena** (as *Parmelia pulverulenta*), *P. venusta* (thallus).
ABR: Nimis & Tretiach 1999; **LOM**: Anzi 1860: 116*, 1864: 27, Jatta 1909–1911: 761, 767, Hafellner 1979; **MAR**: Nimis & Tretiach 1999; **SAR**: Nimis & Poelt 1987, Brackel & Berger 2019; **TAA**: Nascimbene & al. 2007b; **TOS**: B 2025; **VAO**: Hafellner 1979.

***Thalloidima* A. Massal**

Selected literature: Timdal 1991.

***Thalloidima collematicola* (Timdal) Timdal**

Taxon, 67: 896 (2018)

Bas.: *Toninia collematicola* Timdal

Hosts in Italy: *Callome multipartita** (thallus).

FVG: Timdal 1991, Nimis 2026; **LOM**: Timdal 1991*, Nimis 2026.

***Thalloidima leptogii* (Timdal) Timdal**

Taxon, 67: 897 (2018)

Bas.: *Toninia leptogii* Timdal; Syn.: *Scutula leptogii* Dughi,

Hosts in Italy: *Leptogium* s. lat. sp.*, *Scytinium lichenoides*, *S. diffractum* (thallus).

CAL: Timdal 1991, 1992, Puntillo 1996, Diederich 2007c, Nimis 2026.

***Toninia* A. Massal. &**

Selected literature: Timdal 1991.

Toninia plumbina* (Anzi) Hafellner & Timdal

Opera Bot. 110: 85 (1991)

Bas.: *Leciographa plumbina* Anzi [Soc. Crittog. Ital. 1(3): 158 (1862)].

Hosts in Italy: *Pectenia atlantica*, *P. plumbea** (thallus).

BAS[1]: Bartoli & Puntillo 1996, 1998; **CAL**[1]: van den Boom & Aptroot 1990, Puntillo 1996, Puntillo & Puntillo 2004, Brackel & Puntillo 2016; **CAM**[1]: Timdal 1991, Nimis & Tretiach 2004, Garofalo & al. 2010, Catalano & al. 2016, B 2021; **EMI**: (UPS-F-523945); **LAZ**[1]: Ravera 2001; **LIG**[1]: Brunialti & al. 2001; **SAR**[1]: Baglietto 1879: 121, Nimis & Poelt 1987; **SIC**: Ravera & al. 2025b; **TOS**[1]: Anzi 1862*: 158, Baglietto 1871: 279, Timdal 1991; **UMB**[1]: Ravera 1998a, b, Ravera & al. 2006.

[1]Nimis 2026.

***Toninia subfuscae* (Arnold) Timdal**

Opera Botanica 110: 101 (1991)

Hosts in Italy: *Lecanora albescens, L. pruinosa*, *Lobothallia radiosa*, *Protoparmeliopsis muralis*, sterile epiphytic crust,

EMI[1]: Gasparo & Tretiach 1996, Nimis & al. 1996b; **FVG**[1]: TSB[1)]; **SAR**[1]: Timdal 1991; **SIC**[1]: Timdal 1991, van den Boom 1992, Nimis & al. 1996a, TSB[2)]; **TOS**[1]: TSB[3)]. – with doubts: **BAS**: B 2011a.

[1]Nimis 2026.

[1)] Trieste Karst, Val Rosandra/Dolina Glinščice Natural Reserve, M. Stena, on calcareous rocks, on *Lecanora muralis*, E. Loi & P.L. Nimis, 1981 (TSB 2287). [2)] Egadi Islands, Island of Marettimo, on calcareous rocks, on *Aspicilia radiosa*, P.L. Nimis & M. Tretiach, 1991 (TSB 15790). Taormina M. Ziretto, on calcareous rocks, P.L. Nimis & M. Tretiach, 1995 (TSB 20116). [3)] Tuscan Archipelago Island of Capraia, on siliceous rocks, on *Lecanora albescens*, P.L. Nimis, M. Tretiach & M. Castello, 1988 (TSB 10381).

***Toninia verrucariae* (Nyl.) Timdal**
Biblioth. Lichenol., 48: 170 (1992).
Bas.: *Lecidea verrucariae* Metzler.
Hosts in Italy: *Verrucaria* sp. (thallus).
FVG: TSB[1)]; **TAA**: Lettau 1958: 146.
1) Trieste Karst, Borgo Grotta Gigante/Briščikih, large doline East of the village, on calcareous rocks, M. Tretiach, 1997 (TSB 26041).
Note: State of lichenization unclear.

***Trematosphaeriopsis* Elenkin**
Selected literature: Hafellner 2001.

***Trematosphaeriopsis parmeliana* (Jacz.) Elenkin**
Izv. Imp. S.-Petersb. Bot. Sada 1: 146 (1901)
Hosts in Italy: *Xanthoparmelia conspersa* (thallus).
LOM: B 2010d; **TAA**: Hafellner 2001.

***Tremella* Pers.**
Selected literature: Diederich & al. 2022e.

***Tremella anaptychiae* J.C. Zamora & Diederich**
Phytotaxa 307: 257 (2017)
Hosts in Italy: *Anaptychia ciliaris** (thallus and fibrillae).
CAL: Zamora & al. 2017; **SAR:** Brackel & Berger 2019.

***Tremella cetrariicola* Diederich & Coppins**
Biblioth. Lichenol 61: 57 (1996)
Hosts in Italy: *Nephromopsis chlorophylla** (thallus).
CAL: Brackel & Puntillo 2016.

***Tremella cladoniae* Diederich & M.S. Christ.**
Biblioth. Lichenol 61: 65 (1996)
Hosts in Italy: *Cladonia polydactyla*, *C. pyxidata* (squamules and podetia).
LOM: B 2010d; **MOL**: B 2020.

***Tremella diploschistina* Millanes, M. Westb., Wedin & Diederich**
Lichenologist 44: 324 (2012)
Hosts in Italy: *Diploschistes* sp., saxicolous (thallus).
CAL: Brackel & Puntillo 2023.

***Tremella hypogymniae* Diederich & M.S. Christ.**
Biblioth. Lichenol. 61: 90 (1996)
Hosts in Italy: *Hypogymnia physodes* (thallus).
CAL: Brackel & Puntillo 2016; **EMI**: B 2025; **LOM**: B 2010d; **TOS**: B 2015a; **VEN**: B 2013b.

Note: Sometimes the galls of *T. hypogymniae* are hyperinfected with *Lichenoconium erodens*.

***Tremella lecidellae* Diederich & Brackel**

Flora of Lichenicolous Fungi Vol. 1: 187 (2022)

Hosts in Italy: *Lecidella elaeochroma** (thallus).

SIC: Diederich & al. 2022e*.

***Tremella parietinae Freire*-Rallo, Diederich, Millanes & Wedin**

Lichenologist 55: 232 (2023).

Hosts in Italy: *Xanthoria parietina** (apothecia).

BAS: Brackel & Wirth 2023, new record below; **LAZ**: B 2015a; **SAR**: Brackel & Berger 2019; **UMB**: B 2025.

New record: **BAS**: Prov. di Matera, Gravina di Matera near Parco dei Mónaci, on *Pistacia lentiscus*, on *Xanthoria parietina* (apothecia), 40°36′41″N, 16°38′50″E, 130 m, 13.08.2010, W. & G. v. Brackel (herb. Brackel 8959; Brackel & Wirth 2023).

Note: All specimens of *Tremella caloplacae* (Zahlbr.) Diederich on *Xanthoria parietina* determined before 2023 may belong either to the newly described species *Tremella parietinae* (when on the apothecia) or to *T. occultixanthoriae* Diederich, Geyselings & Millanes (on the thallus). *Tremella caloplacae* s. str. is confined to *Variospora* (type on *Variospora aurantia*) (Diederich & al. 2022e, Freire-Rallo & al. 2023).

***Tremella parmeliarum* Diederich s. lat.**

Biblioth. Lichenol. 61: 125 (1996)

Hosts in Italy: *Parmotrema stuppeum* (thallus).

LAZ: B 2015a.

Note: *Tremella parmeliarum* s. str. is confined to *Parmotrema reticulatum*. However, no differences were observed between our specimens and the description provided by Diederich 2022e.

***Tremella pertusae* Diederich, Millanes, Brackel & Etayo**

Flora of Lichenicolous Fungi Vol. 1: 220 (2022).

Hosts in Italy: *Pertusaria pertusa* (thallus, gall-inducing).

¿**ABR:** Diederich & al. 2022b?; **CAL**: Diederich & al. 2022e*.

Note: The specimen from CAL (Brackel & Puntillo 2016, as *T. pertusariae* Diederich) represents the type of the species recently segregated from *T. pertusariae* separated. The specimen from ABR is not completely sure because of the missing basidia.

***Tremella ramalinae* Diederich s. lat.**

Biblioth. Lichenol. 61: 152 (1996)

Hosts in Italy: *Ramalina farinacea*, *R. fastigiata*, *R. fraxinea*, *Ramalina* sp. (thallus).

BAS: B 2011; **CAL**: Brackel & Puntillo 2016; **LAZ**: B 2015a; **MOL**: B 2020; **PUG**: B 2011; **SAR**: Brackel & Berger 2019; **SIC**: B 2008a,b; **TOS**: B 2015a.

Note: *Tremella ramalinae* has proved to be a complex of species (Diederich & al. 2022e). In its strict sense the species is confined to *Ramalina lacera*.

***Trichonectria* Kirschst.**

Selected literature: Darmostuk & al. 2026.

***Trichonectria hirta* (A. Bloxam) Petch**

Naturalist, Hull 1937: 282 (1937)

Hosts in Italy: *Physconia venusta* (thallus).

UMB: B 2015a.

Note: A short description, including the anamorph, is given in B 2015a.

***Trichonectriella* Darmostuk, Etayo & Flakus**

Selected literature: Darmostuk & al. 2026.

***Trichonectriella anisospora* (Lowen) Darmostuk**

Taxon 75: ## (2026)

Hosts in Italy: *Hypogymnia physodes*, *H. tubulosa* (thallus).

CAL: Brackel & Puntillo 2016; **LOM**: B 2010d; **SAR:** Brackel & Berger 2019; **TOS**: B 2008c, B 2015a, 2025; **TAA**: B 2006a.

***Trichonectriella lichenicola* (W. Gams) Darmostuk**

Taxon 75: ## (2026)

Bas.: *Acremonium lichenicola* W. Gams; Syn.: *Cylindromonium lichenicola* (W. Gams) Crous.

Hosts in Italy: *Parmelia submontana* (soralia).

MAR: B 2025.

***Trichonectriella rubefaciens* (Ellis & Everh.) Darmostuk, Etayo & Flakus**

Taxon 75: ## (2026)

Syn.: *Nectriopsis rubefaciens* (Ellis & Everh.) M.S. Cole & D. Hawksw., *Acremonium rhabdosporum* W. Gams, *Cylindromonium rubefaciens* (Ellis & Everh.) Diederich & Ertz

Hosts in Italy: *Parmelia sulcata*, *P. saxatilis* agg., *Parmelina pastillifera*, *P. quercina*, *Pleurosticta acetabulum*, *Ramalina farinacea*, *Ramalina* sp. (thallus).

BAS: B 2011a; **CAL**: Brackel & Puntillo 2016; **LIG**: B 2025; **MAR**: B 2025; **LOM**: B 2010d; **MOL**: B 2020; **SIC**: B 2008b; **TOS**: B 2015a, 2025.

Note: A short description of the anamorph is given in B 2015a.

***Trimmatostroma* Corda**

Selected literature: Diederich & al. 2024m.

***Trimmatostroma cetrariae* Brackel**

Herzogia 26: 353 (2013)

Hosts in Italy: *Cetraria islandica* (thallus).

ABR: Zhurbenko & Brackel 2013, B 2015a.

***Trimmatostroma lecanoricola* Diederich, Etayo, U. Braun & Heuchert**
Bull. Soc. nat. luxemb. 111: 51 (2010)
Hosts in Italy: *Lecanora epanora* (thallus).
PIE: Brackel & Isocrono in prep.

***Trimmatostroma rouxii* Diederich, Tehler & van den Boom**
Herzogia 34: 111 (2021)
Hosts in Italy: *Arthonia atra* (thallus).
TOS: B 2025.

***Unguiculariopsis* Rehm**
Selected literature: Diederich & Etayo 2000

***Unguiculariopsis lettaui* (Grummann) Coppins**
Notes Roy. Bot. Gard. Edinburgh 46 (3): 387 (1990)
Hosts in Italy: *Evernia prunastri** (thallus).
BAS: B 2011a; **CAL**: Brackel & Puntillo 2016; **CAM**: B 2021; **LAZ**: B 2015a; **MOL**: B 2020; **TOS**: Coppins 1988c, Diederich & Etayo 2000, B 2025; **SAR:** Brackel & Berger 2019; **TAA**: Hafellner 1996b, Diederich & Etayo 2000, BSM 2006–2025, B 2013b; **TOS**: B 2025.

Unguiculariopsis lucaniae* Brackel
Herzogia 24: 88 (2011)
Hosts in Italy: *Lecidella elaeochroma** (thallus).
BAS: B 2011a*.

***Unguiculariopsis thallophila* (P. Karst.) W. Y. Zhuang**
Mycotaxon 32: 62 (1988)
Hosts in Italy: *Lecanora carpinea*, *L. chlarotera**, *L. subcarnea* (thallus, apothecial margin and rarely apothecial disc).
ABR: B 2015a; **BAS**: B 2011a, Brackel & Puntillo 2023; **LAZ**: B 2015a; **MAR**: B 2015a; **SIC**: BSM 2006–2025[1)], B 2008b; **TOS**: B 2015a, 2025; **VEN**: B 2013b.
[1)] Prov. Palermo, Madonie: N-Hänge des Pizzo Verde, Vallone di Vicaretto, SSE Castelbuono 380-630 m, niedrige Sandsteinfelsen, Steilflächen, auf *Lecanora subcarnea*, 29.4.1978, I. & H. Hertel (M-0043459).
Note: A short description is given in B 2015a.

***Verrucoccum* V. Atienza, D. Hawksw. & Pérez-Ort.**
Selected literature: Atienza & al. 2021.

***Verrucoccum coppinsii* V. Atienza, D. Hawksw. & Pérez-Ort.**
Mycologia 113(6): 1239 (2021)
Hosts in Italy: *Lobaria pulmonaria**, thallus.
PUG: Brackel & Puntillo 2023.

***Vouauxiella* Petr. & Syd.**
Selected literature: Hawksworth 1981a.

***Vouauxiella lichenicola* (Linds.) Petr. & Syd.**
Beih. Repert. nov. Spec. Regni veg. 42: 484 (1927)
Hosts in Italy: *Lecanora carpinea*, *L. chlarotera*, *L. horiza*, *L. meridionalis*, *Lecanora* sp., *Sanguineodiscus haematites* (thallus and apothecia).
ABR: B 2015a; **CAL**: Brackel & Puntillo 2016, 2023; **CAM**: B 2021; **LOM**: Lettau 1958: 166; **PUG**: B 2011a; **SAR:** Brackel & Berger 2019; **SIC**: Nimis & al. 1994; **TOS**: B 2015a, 2025; **UMB**: Ravera & al. 2011.

***Vouauxiella verrucosa* (Vouaux) Petr. & Syd.**
Beih. Repert. nov. Spec. Regni veg. 42: 483 (1927)
Hosts in Italy: *Lecanora chlarotera*, *L. horiza*, *L. pulicaris* (thallus and apothecia).
BAS: B 2011a; **CAM**: Puntillo & Brackel 2017; **SAR:** Brackel & Berger 2019; **TOS**: B 2015a.

***Weddellomyces* D. Hawksw.**
Selected literature: Navarro-Rosinés & Roux 1995, Calatayud & Navarro-Rosinés 1998.

***Weddellomyces epicallopisma* (Weddell) D. Hawksw.**
Notes Roy. Bot. Gard. Edinburgh 43: 512 (1986)
Hosts in Italy: *Variospora aurantia**, *V. flavescens* (thallus).
BAS: Calatayud & Navarro-Rosinés 1998; **SAR**: Nimis & Poelt 1987; **SIC**: B 2008b.

***Weddellomyces erythrocarpae* Nav.-Ros. & Roux**
Mycotaxon 53: 173 (1995)
Hosts in Italy: *Kuettlingeria erythrocarpa** (thallus).
TOS: B 2025.
Note: A description and discussion is given in B 2025.

***Weddellomyces macrosporus* D. Hawksw., Renobales & Coppins**
Notes Roy. Bot. Gard. Edinburgh 46: 400 (1990)
Hosts in Italy: *Aspicilia cinerea*, *Circinaria calcarea** (thallus).
SAR: Brackel & Berger 2019; **TOS**: B 2015a.

***Xanthoriicola* D. Hawksw.**
Selected literature: Hawksworth & Punithalingam 1973, Diederich & al. 2024n.

***Xanthoriicola physciae* (Kalchbr.) D. Hawksw.**
Trans. Brit. Mycol. Soc. 61: 67 (1973)
Hosts in Italy: *Xanthoria calcicola, X. parietina**, *X. steineri* (apothecia, also growing over the thallus).
ABR: B 2015a; **BAS**: Nimis & Tretiach 1999, B 2011a; **CAL**: Brackel & Puntillo 2016; **CAM**: Puntillo & Brackel 2017, B 2021; **EMI**: Munzi & al. 2020, B 2025; **LAZ**: B 2015a,

2025; **LIG**: B 2025; **LOM**: Santesson 1994a, BSM 2006–2025, B 2013b; **MAR**: B 2015a, 2025; **PUG**: B 2011a; **SAR:** Brackel & Berger 2019; **SIC**: Nimis & al. 1994; **TOS**: B 2008c, B 2015a, 2025; **UMB**: B 2015a.

***Xenonectriella* Weese**

Selected literature: Rossman & al. 1999, Berger & al. 2020

Xenonectriella calabrica* Brackel & Puntillo

Herzogia 29: 301 (2016)

Hosts in Italy: *Pertusaria pertusa** (thallus).

CAL: Brackel & Puntillo 2016*.

***Xenonectriella fissuriprodiens* (Etayo) Etayo**

Opera Lilloana 50: 484 (2017)

Bas.: *Pronectria fissuriprodiens* Etayo

Hosts in Italy: *Lobaria pulmonaria** (thallus).

CAL: Brackel & Puntillo 2016

Xenonectriella physciacearum* F. Berger, E. Zimm. & Brackel

Herzogia 33: 483 (2020).

Hosts in Italy: *Physcia aipolia*, *P. stellaris*, *Physconia distorta*, *P. venusta** (thallus).

BAS: B 2011a (as *X. leptaleae*), Berger & al. 2020; **CAL**: Berger & al. 2020*; **CAM**: B 2021; **EMI**: B 2025; **LAZ**: Berger & al. 2020; **LOM**: Berger & al. 2020; **MAR**: B 2025; **MOL**: B 2020; **SIC**: Berger & al. 2020; **TOS**: Berger & al. 2020, B 2025.

Note: Some of the records of this recently described species were previously reported for Italy under *Pronectria echinulata* (B2010d: 5213; B2011a: 5410, 5478; B2015a: 6706) or *Xenonectriella leptaleae* (Brackel & Puntillo 2016: 7302, 7554).

***Xenonectriella septemseptata* (Etayo) Etayo & van den Boom**

Opuscula Philolichenum 13: 70 (2014)

Hosts in Italy: *Melanelixia glabra*, *M. glabratula**, *M. subaurifera*, *Melanohalea elegantula* (thallus).

CAL: Brackel & Puntillo 2016; **CAM**: B 2021; **LAZ**: B 2015a; **MAR**: B 2025; **MOL**: B 2020; **PUG**: B 2011a; **TOS**: B 2015a.

Note: The host *Melanelixia fuliginosa* reported in B 2015a was misidentified *M. glabratula*.

***Xenonectriella subimperspicua* (Speg.) Etayo**

Opera Lilloana 50: 495 (2017)

Syn.: *Pronectria subimperspicua* (Speg.) Lowen

Hosts in Italy: *Parmelia sulcata*, *Parmelina tiliacea, P. quercina* (thallus).

CAM: B 2021; **LAZ**: B 2025; **TOS**: B 2015a.

Note: A discussion is given in B 2015a.

***Xenonectriella zimmermanni* F. Berger & Brackel**
Herzogia 33: 486 (2020)
Hosts in Italy: *Physcia stellaris*.
EMI: B 2025.

***Zwackhiomyces* Grube & Hafellner**
Selected literature: Grube & Hafellner 1990, Hoffmann & Hafellner 2000, Poumarat & al. 2022, Roux & al. 2023c.

***Zwackhiomyces berengerianus* (Arnold) Grube & Triebel**
Nova Hedwigia 51: 308 (1990)
Hosts in Italy: *Lecidea berengeriana** (= *Mycobilimbia b*.) (thallus).
TAA: Arnold 1871a, 1875d: 474, Triebel 1989, Grube & Hafellner 1990, BSM 2006–2025[1)].
1) Dolomitboden im Damers auf dem Schlern – Südtirol, auf *Mycobilimbia berengeriana*, 07.1867, F. Arnold (M-0043946).

***Zwackhiomyces calcariae* (Flagey) Hafellner & Nik. Hoffm.**
Biblioth. Lichenol. 77: 122 (2000)
Syn.: *Pharcidia calcariae* (Flagey) Vouaux; incl. *Didymella sphinctrinoides* var. *aspiciliicola* (Zopf) Vouaux
Hosts in Italy: *Circinaria* cf. *caesiocinerea*, *Circinaria calcarea**, *Circinaria* sp. (thallus, apothecia).
EMI: B 2025; **SIC**: Nimis & al. 1994; **SAR**: Nimis & Poelt 1987, Grube & Hafellner 1990: 330.

***Zwackhiomyces coepulonus* (Norm.) Grube & R. Sant.**
Nova Hedwigia 51: 310 (1990)
Hosts in Italy: *Caloplaca cerina*, *Gyalolechia flavorubescens* var. *quercina*, *Rusavskia elegans*, *Variospora australis*, *Xanthoria parietina* (thallus and apothecia).
ABR: Nimis & Tretiach 1999, B 2015a; **SIC**: B 2008a,b; **TAA**: Arnold 1896a: 115 (as *Endococcus sphinctrinoides* Zwackh on *Rusavskia elegans*), Grube & Hafellner 1990: 314, BSM 2006–2025[1)].
[1)] Dolomit am Bache im Tschislesthale. Wolkenstein in Gröden. Tirol, auf *Xanthoria elegans*, 08.1893, F. Arnold (M-0043951).

Zwackhiomyces echinulatus* Brackel
Herzogia 21: 191 (2008)
Hosts in Italy: *Physconia distorta** (thallus).
SIC: B 2008b*.

***Zwackhiomyces inconspicuus* Grube & Hafellner**
Nova Hedwigia 51: 320 (1990)
Hosts in Italy: *Lecanora dispersa** (thallus).
TAA: Grube & Hafellner 1990.

***Zwackhiomyces lecanorae* (Stein) Nik. Hoffm. & Hafellner**
Biblioth. Lichenol. 77: 124 (2000)
Hosts in Italy: *Polyozosia albescens**, *P. dispersa* (thallus and apothecia).
SIC: Hoffmann & Hafellner 2000; **TOS**: Hoffmann & Hafellner 2000; **TAA**: Hoffmann & Hafellner 2000.

***Zwackhiomyces lithoiceae* (B. de Lesd.) Hafellner & V. John**
Herzogia 19: 171 (2006)
Hosts in Italy: *Verrucaria* sp. (thallus).
EMI: B 2025.

***Zwackhiomyces martinatianus* (Arnold) Triebel & Grube**
Nova Hedwigia 51: 322 (1990)
Hosts in Italy: *Porpidia crustulata**, *P. macrospora*, *P. platycarpoides* (thallus).
EMI: B 2025; **SAR**: Brackel & Berger 2019; **SIC**: Triebel 1989, BSM 2006–2025[1)]; **VEN**: Anzi "Lich. Ven." no. 77a (as *Lecidea* m.), Arnold 1871b: 147, Triebel 1989, Grube & Hafellner 1990, BSM 2006–2025[2)].
[1)] Prov. Palermo, Madonie: N-Hänge des Pizzo Verde, Vallone di Vicaretto, SSE Castelbuono 380-630 m. Schluchtwald mit *Laurus nobilis*. In den Boden eingebettete Sandstein-Kiesel, auf *Porpidia platycarpoides*, 29.04.1978, I. & H. Hertel (M-0043964).
[2)] Prov. Padova, ad rupes trachyticas in collibus Euganeis (S. Daniele), on *Porpidia crustulata*, without date, A. Massalongo, Anzi, Lich. Rar. Veneti (M-0043966).

***Zwackhiomyces polischukii* Darmostuk & Khodos.**
Polish Botanical Journal 62: 31 (2017)
Hosts in Italy: *Bacidia parathalassia*, *B. rubella* (apothecia & thallus).
PUG: Brackel & Puntillo 2023; **TOS**: B 2025.

***Zwackhiomyces sphinctrinaeformis* Grube & Hafellner**
Nova Hedwigia 51: 325 (1990)
Hosts in Italy: *Romjularia lurida* (thallus).
LAZ: B 2015a; **TOS**: Grube & Hafellner 1990.

***Zyzygomyces* Diederich, Millanes & Wedin**
Selected literature: Diederich & al. 2022d.

***Zyzygomyces bachmannii* (Diederich & M.S. Christ.) Diederich, Millanes & Wedin**
Studies in Mycology 81: 120 (2015)
Bas.: *Syzygospora bachmannii* Diederich & M.S. Christ.; Syn.: *Heterocephalacria b.* (Diederich & M.S. Christ.) Millanes & Wedin.
Hosts in Italy: *Cladonia rangiformis* (podetia).
CAL: Brackel & Puntillo 2023; **SAR**: Brackel & Berger 2019.

***Zyzygomyces physciacearum* (Diederich) Diederich, Millanes & Wedin**

Flora of Lichenicolous Fungi 1: 93 (2022)

Bas.: *Syzygospora physciacearum* Diederich, *Heterocephalacria physciacearum* (Diederich) Millanes & Wedin

Hosts in Italy: *Physcia adscendens*, *P. biziana*, *P. leptalea*, *P. stellaris*, *P. tenella**, (thallus).

ABR: B 2015a; **BAS**: B 2011a, Diederich & al. 2022d; **CAL**: Brackel & Puntillo 2016; **CAM**: B 2021; **EMI**: Munzi & al. 2020, B 2025; **LAZ**: B 2015a, Diederich & al. 2022; **LIG**: B 2025; **MOL**: B 2015a, B 2020; **PUG**: B 2011a; **SAR**: Brackel & Berger 2019; **TOS**: B 2015a, 2025; **UMB**: B 2015a; **VEN**: B 2013b.

***Zyzygomyces physconiae* Diederich, Millanes, P. Pinault & Brackel**

Flora of Lichenicolous Fungi 1: 96 (2022)

Hosts in Italy: *Physconia grisea, Physconia venusta* (thallus).

EMI: Munzi & al. 2020 (as *Heterocephalacria physciacearum* with the note it could be an own taxon), Diederich & al. 2022, B 2025; **SAR**: Brackel & Berger 2019 (as *H. physciacearum*), Diederich & al. 2022; **TOS**: B 2015 (as *Syzygospora physciacearum*), Diederich & al. 2022, B 2025.

Note: This species has only recently been distinguished from *Z. physciacearum* (Diederich & al. 2022).

2. Species with a strongly reduced thallus, not obligately lichenicolous species and taxa assigned with "cf." or "aff."

Slightly lichenised species are marked with an "[L]".

***Actinocladium* Ehrenb.**

Selected literature: Ellis 1971, Wu & Zhuang 2005.

***Actinocladium rhodosporum* Ehrenb.**

Jahrb. Gewächskde. 1: 52 (1819)

Hosts in Italy: *Flavoparmelia caperata*, *Lepraria rigidula*, *Parmotrema perlatum*, *Phlyctis argena* (thallus).

LOM: B 2013b; **TOS**: B 2015a.

Note: Saprophyte, facultatively lichenicolous on different lichens.

***Arthonia* s. lat.**

***Arthonia urceolata* (Elenkin) V.J. Rico, Calat. & Barreno**

Biblioth. Lichenol. 88: 70 (2004)

Possibly: Jatta 1909–1911: 760 (as *A. glaucomaria*): "in thallo *Aspiciliae calcareae* L. in Etruria et in Campania".

[L]*Synarthonia ochracea* (Dufour) Van den Broeck & Ertz

Plant Ecology and Evolution 151: 343 (2018)

Bas.: *Arthonia ochracea* Dufour; Syn.: *Coniocarpon ochraceum* (Dufour) Fr.

Hosts in Italy: *Graphis scripta** (thallus).

PIE: Van den Broeck & al. 2018 ; **VEN**: Massalongo 1852: 47, Trevisan: Lich. Ven. 134.

Note: A juvenile parasite on *Graphis*, later most probably autonomous. See also Nimis 2026.

***Arthrorhaphis* Th. Fr.**

Note: Several species of the genus, i.e. *Arthrorhaphis alpina* (Schaer.) R. Sant., ¿*A. citrinella* (Ach.) Poelt?, *A. vacillans* Th. Fr. and *A. vulgaris* (Schaer.) Frisch, Y. Ohmura, Holien & Bendiksby are known from Italy as juvenile parasites on *Baeomyces* spp., later developing own thalli and living autonomous. For distribution and further information see Nimis 2026.

***Athelia* Pers.**

Selected literature: Jülich 1972, Diederich & al. 2022i.

***Athelia arachnoidea* (Berk.) Jülich**

Willdenowia, Beiheft 7: 53 (1972)

Hosts in Italy: *Candelariella reflexa*, *Diploicia canescens*, *Evernia prunastri*, *Flavoparmelia caperata*, *Hyperphyscia adglutinata*, *Lecanora carpinea*, *Melanelixia elegantula*, *M. glabra*, *M. glabratula*, *M. subaurifera*, *Melanohalea elegantula*, *Parmelia sulcata*, *Parmelina quercina*, *P. tiliacea*, *Parmotrema perlatum*, *Phaeophyscia orbicularis*, *Physcia adscendens*, *P. aipolia*, *P. leptalea*, *P. tenella*, *P. stellaris*, *Physconia distorta*, *P. venusta*, *Pertusaria pertusa*, *Punctelia subrudecta*, *Pseudevernia furfuracea*, *Ramalina fastigiata*, *Ricasolia amplissima*, *Xanthomendoza fulva*, *Xanthoria parietina* and surely much more (thallus and apothecia).

ABR: B 2015a; **BAS**: B 2011a; **CAL**: Brackel & Puntillo 2016; **CAM**: B 2021; **EMI**: Munzi & al. 2020, B 2025; **LAZ**: B 2015a; **LOM**: B 2010d, 2013b; **MAR**: B 2015a, 2025; **PUG**: B 2011a; **SAR**: Brackel & Berger 2019; **SIC**: B 2008b; **TOS**: B 2015, 2025; **UMB**: B 2015a.

Note: The species also spreads over adjacent bryophytes and bark, but generally attacks lichens, unlike other facultatively lichenicolous species of the genus whose taxonomy remains unresolved (*A. alnicola*, *A. epiphylla*, *A. salicum*).

***Bloxamia* Berk. & Broome**

Selected literature: Ellis 1971, Nag Raj & Kendrick 1975, Brackel & al. 2024b.

***Bloxamia leucophthalma* (Lév.) Höhn.**

Sitzungsber. Kaiserl. Akad. Wiss., Wien. Math.-Naturwiss. Cl., Abt. 1 119 (6): 653 (1910)

Syn.: *Bloxamia truncata* Berk. & Broome.

Hosts in Italy: *Pertusaria pertusa* (ascomatal warts).

TOS: B 2025.

Note: A sporodochial hyphomycete usually growing on bark and wood of different deciduous trees, also reported from fungal fruiting bodies.

***Burgoa* Goid.**

Selected literature: Diederich & al. 2022c.

***Burgoa angulosa* Diederich, Lawrey & Etayo**

Mycol. Progr. 6 (2): 66 (2007)

Hosts in Italy: *Lecanora* sp., *Physcia aipolia* (mainly apothecia).

CAL: Brackel & Puntillo 2016

Note: A bulbil-forming basidiomycete, facultatively lichenicolous, but also living on algae and bryophytes.

Capronia

***Capronia* aff. *peltigerae* (Fuckel) D. Hawksw.**

Hosts in Italy: *Collema curtisporum* (apothecial margin).

TOS: B 2015a.

Note: Dubious because of the unusual host; a short description is given in B 2015a.

***Carbonea* (Hertel) Hertel**

Note: Apart from non-lichenised lichenicolous fungi (treated in the chapter above) and independent lichens the genus contains some species known from Italy starting as parasites and later developing their own thallus, i.e.: *Carbonea assimilis* (Körb.) Hafellner & Hertel (on diverse crustose saxicolous lichens), *C. atronivea* (Arnold) Hertel (on *Lecidella*) and *C. distans* (Kremp.) Hafellner & Obermayer (on *Orphniospora mosigii*). For distribution and further information see Nimis 2026.

***Catillaria* A. Massal.**

Note: Several lichenised species of *Catillaria* (*C. chalybeia*, *C. lenticularis*, *C. nigroclavata*) may adopt a lichenicolous habit and show a reduced thallus compared with free-living individuals, whereas *C. mediterranea*, also with a strongly reduced thallus, is strictly lichenicolous. For distribution and further information see Nimis 2026.

***L*Catillaria chalybeia* (Borrer) A. Massal.**

Hosts in Italy: occasionally lichenicolous on *Aspicilia* (*Circinaria*) *calcarea* (thallus).

EMI: B 2025.

***L*Catillaria lenticularis* (Ach.) Th. Fr.**

Hosts in Italy: occasionally lichenicolous on *Verrucaria nigrescens* (thallus).

SIC: Brackel & Puntillo 2023;

***L*Catillaria mediterranea* Hafellner s. str.**

Hosts in Italy: *Anaptychia ciliaris*, *A. crinalis*, *Parmelina* spp., *Parmotrema perlatum*, *Psora testacea*, *Ramalina* spp., *Seirophora villosa* and more (thallus).

ABR: Olivieri & al. 1997, Loppi & al. 1999, Nimis & Tretiach 1999, B 2015a; **BAS**: Hafellner 1982a, Tretiach & Hafellner 1998, Nimis & Tretiach 1999, Paoli & al. 2006, Potenza & al. 2010, B 2011a, **CAL**: Puntillo 1996, 2003, 2011, Brackel & Puntillo 2016;

CAM: ¿Garofalo & al. 1999?, 2010, Aprile & al. 2003b, Nimis & Tretiach 2004, Catalano & al. 2012, 2016, Brunialti & al. 2013, Ravera & Brunialti 2013; **EMI**: Nimis & al. 1996, Morselli & Regazzi 2006; **FVG**: Badin & Nimis 1996, Castello 1996; **LAZ**: Bartoli & al. 1997, Nimis & Tretiach 2004, Ruisi & al. 2005, Munzi & al. 2007, B 2015; **LIG**: Giordani & Incerti 2008; **LOM**: Valcuvia & Gianatti 1995, Arosio & al. 2003, Valcuvia & Truzzi 2007b; **MAR**: Nimis & Tretiach 1999, Frati & Brunialti 2006; **MOL**: ¿Garofalo & al. 1999?, Nimis & Tretiach 1999, Caporale & al. 2008, Genovesi & Ravera 2014, Paoli & al. 2015; **PIE**: Arosio & al. 1998, Isocrono & al. 2003, 2009, Matteucci & al. 2010; **PUG**: Garofalo & al. 1999, Nimis & Tretiach 1999, Durini & Medagli 2004, B 2011; **SAR**: Zedda & Sipman 2001, Zedda 2002, Rizzi & al. 2011, Cossu 2013, Brackel & Berger 2019; **SIC**: Nimis & al. 1994, Grillo & Cristaudo 1995, Grillo 1998, Tretiach & Hafellner 1998, van den Boom 2002c, Grillo & al. 2002, Grillo & Caniglia 2004, Caniglia & Grillo 2006b, B 2008b, Cataldo & Minissale 2015, Brackel & Puntillo 2023; **TAA**: Hinteregger 1994, Nascimbene 2006c, 2014, Nascimbene & al. 2007b, 2014; **TOS**: Tretiach & Nimis 1994, Loppi 1996b, Loppi & al. 1998, 2004, 2006, Putortì & Loppi 1999, Paoli & Loppi 2008, Brunialti & Frati 2010, Loppi & Nascimbene 2010, Benesperi 2011, Nascimbene & al. 2012, Paoli & al. 2012, 2015d, Benesperi & al. 2013, B 2015, 2025; **UMB**: Ravera 1998a, Ravera & al. 2006; **VAO**: Valcuvia 2000, Valcuvia & al. 2000b, Matteucci & al. 2008a; **VEN**: Nimis & al. 1996c, Valcuvia & al. 2000, Lazzarin 2000b, Nascimbene 2008, 2008c, Nascimbene & al. 2008e, 2012, Nascimbene & Marini 2010.

Note: A lichenicolous lichen with a strongly reduced thallus. Reports without mentioning the lichenicolous habit might refer to the free living sister species *Catillaria servitii* Szantala.

[L]*Catillaria nigroclavata* (Nyl.) Schuler

Hosts in Italy: occasionally lichenicolous on *Hyperphyscia adglutinata*, *Lecanora carpinea*, *Lobaria pulmonaria*, *Melanelixia glabra*, *Parmelina quercina*, *Parmotrema perlatum*, *Phaeophyscia orbicularis*, *Physcia biziana*, *Punctelia subrudecta Verrucaria nigrescens* (thallus).

BAS: B2011a; **CAL**: Brackel & Puntillo 2023; **CAM**: B 2021; **EMI**: B 2025; **TOS**: B 2025

Notes: In the lichenicolous morph the thallus is strongly reduced. Common in Italy, but rarely reported as lichenicolous. A short description of the lichenicolous morph is given in B 2021.

***Catolechia* Flot.**

Selected literature: Hafellner 1978, Triebel 1989.

[L]*Catolechia scabrosa* (Ach.) E.J. Möller, Timdal, Haugan & Bendiksby

Fungal Syst. and Evol. 16: 222 (2025).

Syn.: *Buellia scabrosa* (Ach.) Körb., *Epilichen scabrosus* (Ach.) Clem.

Hosts in Italy: *Baeomyces placophyllus*, *B. rufus* (thallus).

FVG: Tretiach 1993, Tretiach & Hafellner 2000; **LOM**: Anzi 1860: 88, Anzi "Lich. Lang. 205", Hafellner 1978, Isocrono & al. 2004; **PIE**: Baglietto & Carestia 1867, 1880, Isocrono & al. 2004; **SAR**: Mameli 1921; **TAA**: Arnold 1869: 613, Kernstock 1893: 309, Dalla Torre & Sarnthein 1905, Isocrono & al. 2004, Nascimbene & al. 2008a; **VAO**: Henry

1915a, Piervittori & Isocrono 1999; **VEN**: Anzi "Lich. Ven. 72", Hafellner 1978, Isocrono & al. 2004.

Note: A juvenile parasite on *Baeomyces* spp., later autonomous.

***Chaenothecopsis* Vain.**

Note: Several species of the genus, listed in the chapter above, are strictly lichenicolous, whereas the following ones may occur as lichenicolous, algicolous or saprotrophic. Most records in the literature do not mention the host, unfortunately. For distribution and further information see Nimis 2026.

***Chaenothecopsis nana* Tibell**

Publ. Herb. Univ. Uppsala 4: 4 (1979)

Hosts in Italy: facultatively lichenicolous.

SAR: Zedda & Sipman 2001, Puntillo & Puntillo 2009.

***Chaenothecopsis pusilla* (Ach.) A.F.W. Schmidt**

Mitt. Staatsinst. Allg. Bot. Hamburg 13:151 (1970)

Hosts in Italy: *Chrysothrix candelaris* (thallus), various lichens, algae and commonly lignicolous.

ABR[1]: Grillo & Romano 1987; **CAL**[#]: Puntillo 1996; **EMI**: Zanfrognini 1902; **FVG**: Clerc 1984; **LAZ**: Tamburlini 1884; **LOM**: Anzi 1860: 100 (as *Calicium p.*), Anzi 1864: 22 (as *Calicium albo-atrum*); Jatta 1909–1911: 127 (as *Calicium alboatrum*, *C. pusillum*) **PIE**: Baglietto & Carestia 1865: 367 (as *Calicium nigrum*), 1880: 247 (as *Calicium nigrum*); **SAR**: Nimis & Poelt 1987; **SIC**[#]; **TOS**[#]: Coppins in litt., B 2015a; **TAA**: Kernstock 1892b, Dalla Torre & Sarnthein 1905, Nascimbene 2013, 2014, Nascimbene & al. 2008a, 2009b, 2010.

[#]Puntillo & Puntillo 2009.

***Chaenothecopsis pusiola* (Ach.) Vain.**

Acta Soc. Fauna Fl. Fenn. 57 (1): 70 (1927) Hosts in Italy: *Chaenotheca* spp., also saprotrophic.

CAL: Puntillo 1996, Puntillo & Puntillo 2009; **PIE**: Baglietto & Carestia 1880: 248 (as *Calicium virescens* according to Nimis 1993), Puntillo & Puntillo 2009, Isocrono & al. 2004; **TAA**: Nascimbene & al. 2008a; **VEN**: Nascimbene 2008c.

***Chaenothecopsis vainioana* (Nádv.) Tibell**

Publ. Herb. Univ. Uppsala 4: 5 (1979)

Hosts in Italy: lichenicolous on various lichens but also saprophytic.

SAR: Zedda 2002, Puntillo & Puntillo 2009, Cossu 2013.

***Chaenothecopsis viridireagens* (Nádv.) A.F.W. Schmidt**

Mitt. Staatsinst. Allg. Bot. Hamburg 13: 153 (1970)

Hosts in Italy: *Chaenotheca* spp., *Calicium* spp., also on free-living algae.

FVG: Puntillo & Puntillo 2009.

***Chalara* (Corda) Rabenh. s. lat.**

***Nagrajchalara* aff. *inflatipes* (Preuss) W.P.Wu & Y.Z. Diao**

Hosts in Italy: *Flavoparmelia caperata* (thallus).

LOM: B 2013b.

Note: An illustrated description and a discussion is given in B 2015a and in Diederich & al. 2024e.

***Chalara* aff. *microspora* (Cordes) Hughes = "*Chalara* species 3"**

Hosts in Italy: *Cladonia coniocraea* (squamules).

TOS: B 2015a.

Note: An illustrated description and a discussion is given in B 2015a and in Diederich & al. 2024e.

***Cryptocoryneum* Fuckel**

Selected literature: Ellis 1971.

S*Cryptocoryneum condensatum* (Wallr.) E. W. Mason & S. Hughes

The natural history of the Scarborough district 1: 161 (1953)

Hosts in Italy: *Melanelixia glabratula*.

TOS: B 2025.

Note: Usually a saprotroph on dead wood, facultatively lichenicolous.

***Dacampia* A. Massal.**

L*Dacampia hookeri* (Borrer) A. Massal.

Sulla Lecidea Hookeri di Schaerer Nota: 7 (1853)

Hosts in Italy: *Solorina* spp. (thallus).

ABR: Matteucci & al. 2015, Tretiach 2015e; **CAL**: Puntillo 1996; **FVG**: Tretiach & Nimis 1999, Hafellner & Zimmermann 2012; **LOM**: Jatta 1909–1911: 797, Roux & Triebel 1994, BSM 2006-2015; **PIE**: Baglietto & Carestia 1865–1867 415, 1880: 320, Roux & Triebel 1994, Hafellner & al. 2004, Hafellner & Zimmermann 2012; **TAA**: Arnold 1876c: 398, 405, 1880b: 112, Roux & Triebel 1994, Nascimbene & al. 2005, 2006, BSM 2006–2015, Nascimbene 2008, Hafellner & Zimmermann 2012; **VAO**: see Nimis 2016; **VEN**: Roux & Triebel 1994, Nascimbene & Caniglia 2003c, Thor & Nascimbene 2007, Nascimbene 2008c.

Note: Juvenile parasite on *Solorina* spp., later autonomous.

***Dacampia* aff. *muralicola* Halıcı & D. Hawksworth**

Hosts in Italy: *Protoparmeliopsis muralis* (thallus and apothecia).

TOS: B 2015a.

Note: A short description and a discussion is given in B 2015a.

***Dactylosporium* Harz**

Selected literature: Ellis 1971

***Dactylosporium* aff. *macropus* (Corda) Harz**
Hosts in Italy: *Pertusaria pertusa*, *Protoparmeliopsis muralis* (thallus).
CAL: Brackel & Berger 2019; **SAR**: Brackel & Berger 2019.
Note: A short description and discussion is given in Brackel & Berger 2019.

***Dimelaena* Norman**
Selected literature: Knudsen & al. 2013.

[L]*Dimelaena lichenicola* K. Knudsen, Sheard, Kocourk. & H. Mayr.
Bryologist116(3): 259 (2013)
Hosts in Italy: *Dimelaena oreina*.
TAA: Knudsen & al. 2013.
Note: First lichenicolous on *Dimelaena* spp., later autonomous.

***Dinemasporium* Lév.**
Selected literature: Sutton 1980, Duan & al. 2007

***Dinemasporium strigosum* (Pers. ex Fr.) Sacc.**
Michelia 2: 281 (1881/1882)
Hosts in Italy: *Pseudevernia furfuracea* (thallus).
LOM: B 2013b.
Note: The species is growing mainly on Poaceae, but is occasionally also found on mainly foliose lichens.

***Endococcus* Nyl.**

***Endococcus calcaricola* (Mudd) Norman**
Lichenes Scandinaviae 284 (1861)
Bas.: *Microthelia calcaricola* Mudd; Syn.: *Tichothecium calcaricola* (Mudd) Arnold
Hosts in Italy: *Lecidea* sp. (thallus).
TAA: Arnold 1879a: 355, Kernstock 1890: 336.
Dubious records: Arnold 1879a: 374 ("auf dem weißen Thallus einer *Lecidea*") and Kernstock 1893: 310 ["*T. calcaricolum* supra thallum *Lec. declinantis*" (= *Lecidea lapicida*?)], which should belong to another species, as *E. calcaricola* is restricted to *Aspicilia* s. lat. spp.

***Endohyalina* Marbach emend. Giralt, van den Boom & Elix**
Selected literature: Giralt & al. 2010.

[L]*Endohyalina insularis* (Arnold) Giralt, van den Boom & Elix
Mycol. Progress 9: 44 (2010)
Syn.: *Rinodina insularis* (Arnold) Hafellner
Hosts in Italy: *Glaucomaria rupicola* agg. (thallus).
TAA: Arnold 1896, Mayrhofer 1984, Nimis 1993, Rambold & al. 1994, Giralt & Llimona 1997; **SIC**: B 2008b.

Note: According to Calatayud & al. 1995 with algae in the apothecial margin but without a proper thallus. For further information see Nimis 2026.

***Epicoccum* Link**

Selected literature: Ellis 1971, Diederich & al. 2024a.

***Epicoccum nigrum* Link**

Magazin Ges. Naturf. Freunde Berlins 7: 32 (1816) [1815]

Hosts in Italy: *Lepra albescens*, *Peltigera collina* (thallus).

CAM: B 2021; **MAR**: B 2015a.

Note: A facultatively lichenicolous hyphomycete.

***Epigloea* Zukal**

Selected literature: Döbbeler 1984.

Note: Most species of the genus (and all so long found in Italy) are algicolous, often over dead or dying bryophytes or lichens; in the last case they may appear as lichenicolous.

***Epigloea bactrospora* Zukal**

Österr. Bot. Z. 40: 327 (1890)

Hosts in Italy: on algae, between squamules of *Cladonia pyxidata*.

LOM: B 2010d; **TAA**: Grummann 1968, Döbbeler 1984, Nascimbene & al. 2007b.

***Epigloea grummannii* Döbbeler**

Beih. Nova Hedwigia 79: 220 (1984)

Hosts in Italy: algicolous, also above moribund bryophytes.

TAA: Döbbeler 1984.

***Epigloea medioincrassata* (Grummann) Döbbeler**

Beih. Nova Hedwigia 79: 221 (1984)

Hosts in Italy: algicolous, also above moribund bryophytes.

TAA: Grummann 1968, Döbbeler 1984.

***Epigloea soleiformis* Döbbeler**

Beih. Nova Hedwigia 79: 229 (1984)

Hosts in Italy: *Cladonia* sp. (squamules) and algicolous, also above moribund lichens and bryophytes.

SAR: Brackel & Berger 2019; **TOS**: B 2015a; **TAA**: Döbbeler 1984, Nascimbene & al. 2007b.

***Lichenochora* Hafellner**

***Lichenochora* aff. *epidesertorum* sensu Navarro-Rosinés & Etayo**

Cryptogamie, Mycol. 22(2): 154 (2001)

Hosts in Italy: *Pyrenodesmia variabilis* (var. *fulva*) (thallus).

LIG: Navarro-Rosinés & Etayo 2001.

***Lichenochora* aff. *epimarmorata* Nav.-Ros.**
Hosts in Italy: *Gyalolechia* cf. *flavovirescens* (thallus).
TOS: B 2015a.
Note: A description and discussion is given in B 2015a.

***Lichenochora* aff. *pyrenodesmiae* Nav.-Ros. & Cl.Roux**
Hosts in Italy: *Caloplaca cerina* (thallus and apothecial margin).
ABR: B 2015a.
Note: A short description and discussion is given in B 2015a.

***Lichenothelia* D. Hawksw.**

***Lichenothelia convexa* Henssen**
Biblioth. Lichenol. 25: 259 (1987)
Hosts in Italy: *Kuettlingeria erythrocarpa* (thallus).
EMI: B 2025.
Note: The species usually grows independently on rock.

***Melaspilea* Nyl.**
Selected literature: Flakus & al. 2014, Ertz & Diederich 2015.

***Melaspilea rhododendri* (Arnold & Rehm) Almq.**
K. Sven. Vetensk-Akad. Handl., ny följd 17(6): 44 (1880)
Hosts in Italy: *Lecidella elaeochroma* (thallus).
SAR: Clauzade & al. 1989.
Note: Dubious whether this species is truly lichenicolous or merely corticolous.

***Microcalicium* Vain.**

***Microcalicium ahlneri* Tibell**
Bot. Not. 131: 234 (1978)
Hosts in Italy: no host mentioned.
FVG: Puntillo 1989, Puntillo & Puntillo 2009; **TAA**: Thor & Nascimbene 2007.
Note: Saprophytic or algicolous, rarely associated with lichens (*Chaenotheca*).

***Milospium* D. Hawksw.**
Selected literature: Diederich & al. 2024h.

***Milospium graphideorum* (Nyl.) D. Hawksw.**
Trans. Brit. mycol. Soc. 65: 228 (1975)
Hosts in Italy: *Lecanographa* spp.
BAS: Nimis & Tretiach 1999; **CAL**: Puntillo 1996, Brackel & Puntillo 2016; **PUG**: Nimis & Tretiach 1999; **SAR**: BSM 2006–2025[1)], Brackel & Berger 2019.
[1)] prov. Nuoro, Laconi. in Castle Park, on *Aesculus*, alt. 550 m, 9°03'E 39°51'N, 07.1987, A. Aptroot (M-0045727).

Note: The biological status of the species is yet unclear (either lichenised with *Trentepohlia* or lichenicolous on Opegraphales).

***Monodictys* S. Hughes**

Selected literature: Diederich & al. 2024j.

***Monodictys cellulosa* S. Hughes**

Canad. J. Bot. 36: 786 (1958)

Bas.: *Sporidesmium cellulosum* Sacc. [Syll. Fung. 4: 501 (1886)]

Hosts in Italy: no host mentioned.

BAS: Saccardo 1886: 501; **VEN**: Saccardo 1886: 501, Hughes 1958: 786, Hawksworth 1979a: 241.

Note: A facultatively lichenicolous species, also living saprotrophic on bark.

***Muellerella* Hepp ex Müll.Arg.**

***Muellerella* sp.**

Hosts in Italy: *Seirophora villosa* (thallus and apothecia).

TOS: B 2025.

Note: See the provisional description in B 2025.

Mycobilimbia

***Mycobilimbia epimyrrhina* (Linds.) Vouaux?**

Bas.: *Leciographa epimyrrhina* Linds.?

Hosts in Italy: *Lobothallia radiosa*.

LIG: BSM 2006–2025[1)].

[1)] Genua, supra *Placodium radiosum* var. *myrrhinum* (¿=*Lobothallia radiosa or Polyozosia pruinosa*?), without date, F. Baglietto (M-0044042).

Note: Dubious species that has not been reported elsewhere.

***Paralecanographa* Ertz & Tehler**

Selected literature: Egea & al. 1993, Ertz & Tehler 2011

[L?]*Paralecanographa grumulosa* (Dufour) Ertz & Tehler

Fungal Diversity 49 (1): 57 (2011)

Bas.: *Opegrapha grumulosa* Dufour; Syn.: *Lecanactis grumulosa* (Dufour) Fr., *Lecanographa grumulosa* (Dufour) Egea & Torrente, *Lecanactis monstrosa* Bagl.

Hosts in Italy: *Dirina massiliensis, D. repanda*, *Roccella phycopsis, Roccella* spp. (thallus); in most of the records no host lichen is mentioned.

BAS: Bartoli & Puntillo 1998; **CAL**: Egea & al. 1993, Puntillo 1996; **CAM**[#]: Jatta 1875, Nimis & Tretiach 2004, Garofalo & al. 2010; **LAZ**: Nimis & al. 1987, Egea & al. 1993; **LIG**[#]: Baglietto 1857, Anzi Lich. Ven. 82, 83, Rabenhorst, Lich. Eur. 217, Saccardo 1894, Sbarbaro 1931, 1941, Bouly 1948, Valcuvia & Vittadini 1982, Egea 1989, Egea & al. 1993; **LOM**: Garovaglio 1838, 1844, 1863 Lichen. Ital. XXI 7, Cesati 1861, Anzi 1864,

Redinger 1937–1938, Tomaselli 1946; **PUG**[#]: Nimis 1985b, Nimis & Tretiach 1999; **SAR**: Baglietto 1879, Nimis & Poelt 1987, Egea 1989, Egea & al. 1993, Feige & Lumbsch 1993; **SIC**[#]: Zodda 1906, Vězda Lich. Rar. Exs. 65, Grillo & Romano 1989, Feige & Lumbsch 1993, Nimis & al. 1994, Ottonello & Merlo 1991, Ottonello & Salone 1994, Ottonello & al. 1994, 2011, Obermayer 1995, Gianguzzi & al. 2009, Grillo & al. 2009b, Hafellner 2009a; **TOS**[#]: Baglietto 1871, Saccardo 1894, Sommier 1900, Redinger 1937-1938, Egea 1989, Nimis & al. 1990, Egea & al. 1993, Benesperi & al. 2006b; **VEN**[#]: Massalongo 1853b, Anzi Lich. Ven. 82, 83, Redinger 1937-1938.

[#]Jatta 1909–1911: 721.

Note: Starting as a lichenicolous fungus, later eventually developing its own thallus.

***Periconia* Tode ex Fries**

Selected literature: Ellis 1971, 1976,

***Periconia digitata* (Cooke) Sacc.**

Syll. Fung. 4: 274 (1886)

Hosts in Italy: *Peltigera degenii* (thallus).

VEN: B 2013b.

Note: A facultatively lichenicolous hyphomycete, usually growing on plant debris.

***Phaeospora* Hepp ex Stein**

***Phaeospora* aff. *peltigericola* D. Hawksw.**

Hosts in Italy: *Lobaria pulmonaria* (thallus).

TOS: Brackel 2015a.

Note: It is not yet clear whether the specimens of *Phaeospora* on *Peltigera* and on *Lobaria* are conspecific.

***Pharcidia* Körb.**

***Pharcidia lichenicola* (A. Massal.) Vouaux**

Bas.: *Dothidea lichenicola* A. Massal.; Syn.: *Endococcus lichenicolus* (A. Massal.) Arnold

Hosts in Italy: *Circinaria viridescens* (thallus).

VEN: Massalongo 1852: 45, Vouaux 1912: 251, Keissler 1930: 371.

Note: A dubious species, found only once, perhaps a *Stigmidium*.

***Phoma* Sacc.**

Phoma lichenis* Pass.

Atti Reale Accad. Lincei, Rendiconti Cl. Sci. Fis. Ser. 4, 7 (2): 48 (1891)

Hosts in Italy: *Physconia distorta*? (thallus).

EMI: Passerini 1891*: 48, Keissler 1911, Hawksworth 1981a.

Note: A dubious species, perhaps representing the pycnidia of the lichen.

***Pronectria* Clem.**

***Pronectria oligospora* Lowen & Rogerson s. lat.**
Mycotaxon 53: 88 (1995)
Hosts in Italy: *Punctelia subrudecta* (thallus).
TOS: B 2015a.
Note: Not to ascribe to one of the two varieties. A description, also of the anamorph, and a discussion are given in B 2015a.

***Protothelenella* Räsänen**
Note: Whereas *Protothelenella croceae* is non-lichenised and strictly lichenicolous, others are slightly lichenised and live on bryophytes or plant debris, sometimes also over (moribund) lichens, i.e.: *Protothelenella leucothelia* (Nyl.) H. Mayrhofer & Poelt, *P. sphinctrinoidella* (Nyl.) Mayrhofer & Poelt and *P. sphinctrinoides* (Nyl.) H. Mayrhofer & Poelt. Most records in the literature do not mention a host. For distribution and further information see Nimis 2026.

***Ramboldia* Kantvilas & Elix**
Selected literature: Dobson 2009.

[L]*Ramboldia insidiosa* (Th. Fr.) Hafellner
Carinthia II 185/105: 624 (1995)
Bas.: *Lecidea insidiosa* Th.Fr.
Hosts in Italy: *Lecanora varia* (thallus and apothecia); most records do not mention a host.
BAS: Brackel & Puntillo 2023; **LOM**: Anzi 1866, Migula 1931; **TAA**: Nascimbene & al. 2006; **VEN**: Nascimbene & Caniglia 2000, 2003, Thor & Nascimbene 2007; **SAR**: Nimis & Poelt 1987 on *L. muralis* is dubious.
Note: A juvenile parasite, later developing its own thallus.

***Reichlingia* Diederich & Scheid.**
Selected literature: Diederich & Scheidegger 1996, Aptroot & Sipman 2001.

[L?]*Reichlingia leopoldii* Diederich & Scheid.
Bull. Soc. Naturalistes luxemb. 97: 5 (1996)
Hosts in Italy: leprose white crust with *Trentepohlia*.
LOM: Brackel 2010d.
Note: probably lichenized and not lichenicolous.

***Sclerococcum* Fr. ex Fr.**

[L?]*Sclerococcum griseisporodochium* Etayo
Nova Hedwigia 61: 193 (1995)
Hosts in Italy: on an epilithic/epiphytic thallus with *Trentepohlia*.
FVG: Tretiach 2004.

Note: The status of the species is not yet clear, possibly it is lichenized (see Etayo 1995a, Brackel 2009) but nevertheless lichenicolous.

***Scutula* Tul.**

[L]*Scutula heeri* (Hepp ex A. Massal.) P. Karst.

Linnea 28: 296 (1856)

Bas.: *Lecidea heerii* Hepp ex A. Massal. [N. Ann. Sc. Nat. Bologna: 214 (1853)]; Syn.: *Biatorina heerii* (Hepp ex A. Massal.) Anzi.

Hosts in Italy: *Peltigera canina**, *P. rufescens* (thallus).

LOM: Anzi 1862: 150; **TAA**: Kernstock 1892a: 325.

Note: slightly lichenized.

***Sphaerellothecium* Zopf**

***Sphaerellothecium* cf. *cinerascens* Etayo & Diederich**

Lichenologist 30: 114 (1998)

Hosts in Italy: *Cladonia incrassata* (squamules and soralia).

TOS: B 2015a ("cf.").

Note: In Europe *S. cinerascens* was known only from the host *Cladonia parasitica*, which causes doubts on the identity of the here mentioned specimen.

***Stigmidium* Trevis.**

***Stigmidium* cf. *exasperatum* Etayo**

Guineana 16: 411 (2010)

Hosts in Italy: *Melanohalea olivacea* (thallus)

TAA: Arnold 1872b: 302 (*Pharcidia lichenum* f. *olivaceae*, on *Imbricaria olivacea*).

Note: Arnold's specimen could belong to this species, though in his description the ascospores measure 15 × 6-–7 µm, in the protologue 9–11(–12.5) × 4–5(–6) µm. *Stigmidium exasperatum* was described from the host *Melanohalea exasperata*.

***Stigmidium* cf. *joergensenii* R. Sant.**

Nord. J. Bot. 9: 99 (1989)

Hosts in Italy: *Lichenomphalia hudsoniana* (thallus).

TAA: Arnold 1887a: 95 (as *Pharcidia croceae* on *Normandina laetevirens*), Roux & Triebel 1994, BSM 2006–2025[1)].

[1)] Auf *Normandina laetevirens* auf der Höhe des Monte Mulatto. Predazzo in Südtirol, (auf *Coriscium viride*/*Omphalina hudsoniana*), 07.1880, F. Arnold (M-0043712).

Note: When Santesson (1989) presumed that his *S. joergensenii* might be identical with the fungus Arnold found on *Normandina laetevirens* (= *Coriscium viride* = *Omphalina hudsoniana*) and noted it as a form of *Pharcidia croceae*, *Omphalina foliacea* (the host of the type specimen) was considered a basidiomycete (like, of course, the whole genus). Much later, Lücking & Moncada (2017) showed that *O. foliacea* is an ascomycete, belonging to the genus *Agonimia* and that the big perithecia found on it, are not the lichenicolous

fungus *Norrlinia peltigericola* but the perithecia of the lichen. Under this aspect it is more than doubtful, that the *Stigmidium* growing on the basidiomycete *Lichenomphalia hudsoniana* is conspecific with the one growing on the ascomycete *Agonimia foliacea*. However, the given measurements are not contradictive: *Stigmidium joergensonii*, Santesson 1989S: asci 23–29 × 7-10 µm, ascospores 10–12 × 3.5-4.5 µm; *Pharcidia croceae*, forma, Arnold 1887a: asci 30 × 12 µm, ascospores 9 × 3 µm.

***Taeniolella* S. Hughes**

***Taeniolella breviuscula* (Berk. & M.A. Curtis) S. Hughes**
Can. J. Bot. 36: 817 (1958)
Hosts in Italy: *Blastenia ferruginea* (thallus).
LAZ: B 2015a.
Note: The species is facultatively lichenicolous, usually living on bark.

***Taeniolina* M.B. Ellis**
Selected literature: Ellis 1976, Heuchert & al. 2024c.

***Taeniolina scripta* (P. Karsten) P.M. Kirk**
Trans. Brit. Mycol. Soc. 76: 84 (1981).
Hosts in Italy: *Cladonia caespiticia*, *Lecanora chlarotera*, *Punctelia subrudecta* (thallus).
ABR: B 2015a; **CAL**: Brackel & Puntillo 2016.
Note: The species lives mainly saprotrophic, also spreading over lichens.

***Tetramelas* Norman**

[L]***Tetramelas concinnus* (Th. F.) Giralt**
Nova Hedwigia 89(3-4): 330 (2009)
Bas.: *Buellia concinna* Th. Fr.
Hosts in Italy: no host mentioned.
SAR: Rizzi & al. 2011.
Note: A juvenile parasite, later autonomous.

***Thelocarpon* Nyl.**
Selected literature: Salisbury 1966, Orange & al. 2009a.

***Thelocarpon epibolum* Nyl.**
Flora 49: 420 (1866)
Hosts in Italy: *Peltigera canina* (thallus); mostly no host mentioned.
Italy (without site): Hafellner & Obermayer 1995; **CAL**[#]; **FVG**[#]: (TSB 14678); **TAA**[#]: Arnold 1887a: 89, Dalla Torre & Sarnthein 1905, Magnusson 1935-1936: 301, Salisbury 1953, 1966, Nascimbene & al. 2007b; **VEN**[#].
[#]Nimis 2026.

Thelocarpon epibolum* Nyl. var. *epibolum

Flora 49: 420 (1866)

Hosts in Italy: no hosts mentioned.

CAL: CLU[1)]; **TAA**: Nascimbene & al. 2022, herb. Nascimbene[2)]; **VEN**: Lazzarin 2000, TSB[3)];

[1)] Cosenza, Rende, Orto Botanico dell' Università della Calabria, bark of *Quercus*, 220 m, 2012, D. Puntillo (CLU 16653). [2)]Trento, Siror, Parco Naturale di Paneveggio-Pale di San Martino Calaita, wood (stump), with *Icmadophila ericetorum* and *Cladonia cenotea*, 1600 m, 2010, J. Nascimbene (herb. Nascimbene 2379). [3)]Verona, surroundings of Verona, 100 m, 1990, G. Lazzarin (TSB 13789).

Note: A saprophytic species on soil, wood, bryophytes and also on lichens (e.g. *Baeomyces*).

***Thelocarpon epibolum* var. *epithallinum* (Leight. ex Nyl.) G. Salisb.**

North West. Nat. 1953: 70 (1953)

Hosts in Italy: *Peltigera leucophlebia*, *Solorina saccata* (thallus).

FVG: TSB[1)]; **TAA**: B 2013b; **VEN**: B 2013b.

[1)] Udine, Carnic Alps, Passo Volaia (M. Coglians), soil and plant debris over calcareous substrate, 2000 m, 1990, M. Tretiach (TSB 14678, TSB 14754).

Note: Mostly lichenicolous on different epigean lichens.

***Thelocarpon impressellum* Nyl.**

Flora 50: 179 (1867)

Hosts in Italy: *Catapyrenium dadaleum* (as *Placid. cartilagin. daedal. terrestre*).

TAA: Arnold 1887a: 126 (on *Squamarina cartilaginea*, dubious), Nascimbene & al. 2022.

Note: A facultatively lichenicolous species, mostly on algae or saprotrophic.

***Thelocarpon lichenicola* (Fuckel) Poelt & Hafellner**

Phyton 17: 70 (1975)

Bas.: *Ahlesia lichenicola* Fuckel.

Hosts in Italy: *Baeomyces rufus**, on sandstone,

TAA: Magnusson 1935-1936: 48, Salisbury 1974, Nimis 1993/2025, Hafellner 1995f, Nascimbene & al. 2022.

Note: A mainly lichenicolous species, but, despite of the name, also algicolous or saprotrophic.

***Tremella* Pers.**

***Tremella* aff. *variae* Pérez-Ortega, Millanes, V.J. Rico & J.C. Zamora**

Hosts in Italy: *Lecanora horiza* (thallus)

BAS: Brackel & Puntillo 2023.

Note: Morphologically identical to *T. variae*, but on another host (*Lecanora horiza* vs *L. varia*).

***Tremella* aff. *macrobasidiata* J. C. Zamora, Pérez-Ortega & V. J. Rico**

Hosts in Italy: *Lecanora argentata* (thallus).

New record: **CAL**: Prov. di Vibo Valentia, Lago dell'Angitola, on *Populus* sp. in olive grove, on *Lecanora argentata* (thallus), 38°43'59.3''N, 16°14'25.2''E, 70 m, W. v. Brackel & D. Puntillo (herb. Brackel 7602).

Note: The specimen reminds morphologically on *T. macrobasidiata*, which is confined to *Lecanora chlarotera.*

***Weddellomyces* D. Hawksw.**

***Weddellomyces* aff. *aspiciliicola* Alstrup**

Hosts in Italy: *Circinaria calcarea*, *Lobothallia radiosa* (thallus).

LAZ: Brackel 2015a.

Note: A short description is given in B 2015a.

***Zwackhiomyces* Grube & Hafellner**

***Zwackhiomyces* sp.**

Hosts in Italy: *Collema fuscovirens* (thallus).

LIG: B 2025.

Note: A short description is given in B 2025.

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Note: As the references were taken from the author's register of literature on the lichenicolous fungi worldwide, the numbering of citations for multiple papers by the same author in the same year (e.g. Arnold, F., 1872b) does not always include all letters, there may be gaps. However, I have chosen not to resort them, as it would cause considerable confusion, particularly in future supplements, if the same references were labelled with different letters.

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