

New or interesting lichens and lichenicolous fungi from Belgium, Luxembourg and northern France. X

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Abstract. Review of recent literature and studies on large and mainly recent collections of lichens and lichenicolous fungi led to the addition of 35 taxa to the flora of Belgium, Luxembourg and northern France: *Abrothallus buellianus*, *Absoconditella delutula*, *Acarospora glaucocarpa* var. *conspersa*, *Anema nummularium*, *Anisomeridium ranunculosporum*, *Arthonia epiphyscia*, *A. punctella*, *Bacidia adastrata*, *Brodoa atrofusca*, *Caloplaca britannica*, *Cercidospora macrospora*, *Chaenotheca laevigata*, *Collembosporium foveolatum*, *C. sublitorale*, *Coppinsia minutissima*, *Cyphelium inquinans*, *Involucropyrenium squamulosum*, *Lecania fructigena*, *Lecanora conferta*, *L. pannonica*, *L. xanthostoma*, *Lecidea variegatula*, *Micarea micrococca*, *Micarea subviridescens*, *M. vulpinaris*, *Opegrapha prosodea*, *Parmotrema steppeum*, *Placynthium stenophyllum* var. *isidiatum*, *Porpidia striata*, *Pyrenidium actinellum*, *Thelopsis rubella*, *Toninia physaroides*, *Tremella coppinsii*, *Tubeufia heterodermiae*, *Verrucaria acrotella* and *Veizdaea stipitata*. Three species are to be deleted from that flora: *Brodoa intestiniformis*, *Fuscopannaria saubinetii* and *Squamarina oleosa*.

1. Introduction

This paper continues the series of notes on the flora of lichens and lichenicolous fungi in Belgium, Luxembourg and northern France (incl. the Boulogne and Picardy districts in NW France). The former contribution appeared in 2003 (Sérusiaux et al. 2003) and it is thus appropriate to publish the recent additions and changes to the checklist of species present in that area (Diederich & Sérusiaux 2000). This paper further includes the most recent data regarding the nomenclature and taxonomy of the species present.

2. Survey of other publications on the lichen flora and vegetation of the study area

Since the previous paper published in this series (Sérusiaux et al. 2003), the following

contributions to the lichen and lichenicolous flora and vegetation of the study area have been detected or published:

- Killmann & Fischer (2001) report the discovery of *Arthonia cinnabarina* (DC.) Wallr. near Berdorf (Luxembourg) in 2001; the species has not been seen in that country since the 19th century.
- Vanholen (2003) has produced a detailed survey of the epiphytic macrolichens in the “Région de Bruxelles-Capitale” through 470 relevés. A total of 32 species have been detected and a correlation with atmospheric pollution data shows an increasing eutrophication of tree bark in this large urban area.
- van den Boom & Brand (2003) describe the new *Verrucaria squamulosa* Brand & van den Boom on the basis of material collected in Belgium, Luxembourg and the

Netherlands. It is closely related to *V. macrostoma* and was mentioned in the checklist as “*Verrucaria* sp. (as *Verrucaria squamulosa* ined. in Ertz 1999)” (Diederich & Sérusiaux 2000: 174). It has been transferred to the genus *Involucropyrenium* by Breuss & Türk (2004: 214) as *I. squamulosum* (Brand & van den Boom) Breuss.

- van den Boom (2003) reports *Micarea subviridescens* (Nyl.) Hedl. as new for Belgium. This species was previously included in *Micarea prasina*.

- Sparrius & Aptroot (2003) describe the new and most probably widespread *Bacidia adastra* Sparrius & Aptroot, with material from Belgium, Germany, Great Britain and the Netherlands.

- In a series of papers starting in 2003, Van den Broeck and co-workers have published several interesting species, including first reports for the area covered by the checklist, from a poorly studied part of Belgium, the Flemish and Campine districts (**B** Fl. and Camp.) (Van den Broeck & Aptroot, 2003; Van den Broeck, 2003; Van den Broeck et al., 2004a, b; Slembrouck et al., 2004; Van den Broeck et al., 2004; Van den Broeck, 2005). After examination of the corresponding specimens, we accept the following species to be added to the checklist: *Lecanora conferta* (Fr.) Grognot, *L. pannonica* Szatala, *Lecidea variegatula* Nyl., *Micarea micrococca* (Körb.) Coppins, *Parmotrema stuppeum* (Taylor) Hale, *Verrucaria acrotella* Nyl., and *Vezdaea stipitata* Poelt & Döbbeler. For three others, we wish to postpone such a decision until more evidence is available: *Bacidia viridescens* (A. Massal.) Norman, *Cladonia incrassata* Flörke, and *Verrucaria tectorum* (Massal.) Körber. Those papers are also important for the keys of the macrolichens in the area of study (Sérusiaux et al. 2004) as two species not included in those keys are involved (*Cladonia incrassata* and *Parmotrema stuppeum*).

- Ertz & Duvivier (2004) have published a detailed analysis of the lichen flora and vegetation in the “vallée de l’Eau d’Heure” (**B** Mosan). They report many interesting data, amongst which *Paranectria oropensis* is new for Belgium.

- Diederich et al. (2004) report the results of two field trips in 2002 and 2003 in southern Belgium (Lorraine district). Two species are reported as new for the area of study: *Micarea vulpinaris* (Nyl.) Muhr (= *Micarea muhrii* Coppins) and *Pyrenidium actinellum* Nyl., while *Lichenopeltella hydrophila* is mentioned for the first time in Belgium. A healthy population of the rare *Cladonia zopfii* was rediscovered near Arlon (**B** Lorr).

- Aptroot & van Herk (2004) mention the occurrence of *Caloplaca britannica* R. Sant. from Belgium (“Vlaams Brabant”; report formerly published by Van den Broeck & Aptroot 2003), a mostly saxicolous species growing in ruderal conditions and producing a microsquamulose thallus and granular soredia. It should be looked for in the area covered by the checklist, as it is most likely a widespread taxon.

- Sérusiaux, Diederich & Lambinon (2004) have published identification keys for all macrolichens present in the study area: 327 species are included, 125 are illustrated in colour and 241 distribution maps are produced. An important taxonomical change with the checklist (Diederich & Sérusiaux 2000) is the inclusion of all species of *Cladina* in *Cladonia*. The following species are new for the area covered: *Anema nummularium* (Durieu & Mont.) Nyl. and *Placynthium stenophyllum* (Tuck.) Fink var. *isidiatum* Henssen; *Baeomyces callianthus* is treated as a variety of *B. rufus*; and *Squammarina oleosa* (Zahlbr.) Poelt is deleted from the checklist.

- van den Boom & Brand (2005) document the presence of *Lecania fructigena* Zahlbr. on rocks in coastal areas of Europe; they report its occurrence in the area of study, at the “Cap Gris-Nez” in **F** Mar. The species must thus be added to the checklist.

- Diederich et al. (2006) provide a further contribution to the lichen flora of northern France (Lorr.). A total of 264 species of lichens and lichenicolous fungi are recorded in eight localities, incl. the “forêt du Mont-Dieu” S of Sedan, a site of high biological interest with *Cetrelia olivetorum*, *Cladonia cyathomorpha* and *Lobaria pulmonaria* well-developed on old boles of several

Fraxinus trees. *Acarospora glaucocarpa* (Ach.) Körb. var. *conspersa* (Fr.) Th. Fr. and *Thelopsis rubella* Nyl. are reported as new for the area covered by the checklist; *Lecanora xanthostoma* Fröberg is confirmed for the same area and a second world report of *Pronectria terrestris* is documented.

- van den Boom & van den Boom (2006) provide a detailed inventory of lichens and lichenicolous fungi in several nature reserves in northern Belgium. 159 taxa are reported, incl. the following species which are new for Belgium: *Caloplaca phlogina*, *Cercidospora macrospora*, *Lecanora persimilis*, *Lichenonium xanthoriae*, *Trichonectria rubefaciens* and *Tubeufia heterodermiae*. The lichenicolous fungi *Cercidospora macrospora* (Uloth) Hafellner & Nav.-Ros. and *Tubeufia heterodermiae* Etayo are to be added to the checklist. They also report the occurrence of *Physcia clementei*, a species not seen in the study area since 1954 and which was considered as extinct (Sérusiaux et al. 2004: 136).

- Diederich, Ertz, Ries & Sérusiaux have opened a web site dedicated to the lichens and lichenicolous fungi of the study area (www.lichenology.info). It presents updated data on all species found, together with distribution maps and colour photographs for many species. This site has been produced with the help of the Société des naturalistes luxembourgeois.

3. Taxonomical and nomenclatural changes

The main changes of epithets of accepted species in the area of study, and of generic position or of genera delimitation following new taxonomical studies are given in Tables 1 and 2.

Fryday (2005: 5) has reduced *Porpidia musiva* (Körb.) Hertel & Knoph into synonymy with *P. cinereoatra* (Ach.) Hertel & Knoph, an option which was already suggested in the checklist (Diederich & Sérusiaux 2000: 147). The same author (Fryday 2005: 16) gives the forma taxonomical level to *P. nigrocruenta* (Anzi) Diederich & Sérus., which was reduced into synonymy with *P. macrocarpa* (DC.) Hertel & A. J. Schwab in the checklist (Diederich & Séru-

siaux 2000: 147): *P. macrocarpa* f. *nigrocruenta* (Anzi) Fryday.

Halda (2003) revised the species of *Bagliettoa* and concluded that these species should be included in *Verrucaria*. The four species of *Bagliettoa* recognized in our study area are reduced to two species: *Verrucaria baldensis* A. Massal. (incl. *B. parmigera* and *B. steineri*) and *Verrucaria parmigerella* Zahlbr.

Several recent papers have reorganized the delimitations of important genera, based on new morphological and anatomical data and/or phylogenetic analysis of DNA sequences. Genera concerned are *Acarospora*, the parmelioid genera and *Xanthoria*.

In *Acarospora*, Harris (2004) has adopted the name *Myriospora heppii* (Hepp) R. C. Harris for the quite isolated *A. heppii*, while Vězda (2002) has introduced the new genus *Polysporinopsis* Vězda for two well-known species, *A. sinopica* and *A. smaragdula*. Further evidence is needed before a new generic delimitation can be adopted for the Acarosporaceae (see Reeb et al. 2004).

Several parmelioid genera (mainly *Melanelia*, *Neofuscelia*, *Parmotrema* and *Xanthoparmelia*) have been reorganized on the basis of revisited morphological and anatomical characters and on phylogenetical analysis of newly produced DNA sequences. The results include: (a) the synonymy of *Neofuscelia* with *Xanthoparmelia*, (b) the synonymy of *Rimelia* with *Parmotrema*, and (c) the description of the new genera *Melanelixia* and *Melanohalea*, respectively for the *Parmelia glabrata* aggr. and the *Parmelia exasperata* aggr., the genus *Melanelia* being reduced to the *Parmelia stygia* aggr. (Blanco et al. 2004a, b; Blanco et al. 2005). We suggest postponing the use of those numerous nomenclature changes until all parmelioid genera are reassessed with the appropriate data sets, especially for the genera *Flavoparmelia*, *Flavopunctelia*, *Hypotrachyna*, *Parmelina* and *Punctelia*.

The complete reorganization of the genus *Xanthoria* as recently proposed by Søchting et al. (2002) and Kondratyuk & Kärnefelt (2003) must be serenely evaluated before being adopted for the checklist.

Table 1. Changes of epithets of accepted species in the area of study.

Epithet used in the checklist (Diederich & Sérusiaux 2000) and subsequent papers	New epithet	References
<i>Arthonia lapidicola</i> (Taylor) Branth & Rostr.	<i>Arthonia fusca</i> (A. Massal.) Hepp	Fryday (2004: 176)
<i>Lecania globulosa</i> (Flörke) van den Boom & Sérus.	<i>Lecania hyalina</i> (Fr.) R. Sant.	Santesson et al. (2004: 145)
<i>Lecanora piniperda</i> Korb.	<i>Lecanora albellula</i> Nyl.	Printzen (2001: 389)
<i>Lepraria flavescens</i> Clauzade & Cl. Roux	<i>Lecanora rouxii</i> S. Ekman & Tønsberg	Grube et al. (2004: 512)
<i>Leptogium corniculatum</i> (Hoffm.) Minks	<i>Leptogium palmatum</i> (Huds.) Mont.	Santesson et al. (2004: 187)
<i>Parmotrema chinense</i> (Osbeck) Hale & Ahti	<i>Parmotrema perlatum</i> (Huds.) M. Choisy	Hawksworth (2004)
<i>Porpidia glaucophaea</i> (Korb.) Hertel & Knoph	<i>Porpidia rugosa</i> (Taylor) Coppins & Fryday	Fryday (2005: 29)
<i>Trapelia involuta</i> (Taylor) Hertel	<i>Trapelia glebulosa</i> (Sm.) J. R. Laundon	Laundon (2005: 492)
<i>Usnea madeirensis</i> Mont.	<i>Usnea silesiaca</i> Mont.	Clerc (2004: 88-89)
<i>Verrucaria aspiciliicola</i> R. Sant.	<i>Verrucaria canella</i> Nyl.	Orange (2004: 174)

Table 2. Changes of generic position or of genera delimitation following new taxonomical studies.

Generic position adopted in the checklist (Diederich & Sérusiaux 2000) and subsequent papers	New generic position	References
<i>Arthothelium ruanum</i> (A. Massal.) Korb.	<i>Arthonia ruana</i> A. Massal.	Sundin & Tehler (1998: 395-396)
<i>Bagliettoa baldensis</i> (A. Massal.) Vězda, <i>B. parmigera</i> (J. Steiner) Vězda & Poelt and <i>B. steineri</i> (Kušan) Vězda	<i>Verrucaria baldensis</i> A. Massal.	Halda (2003)
<i>Bagliettoa parmigerella</i> (Zahlbr.) Vězda & Poelt	<i>Verrucaria parmigerella</i> Zahlbr.	Halda (2003)
<i>Dimerella pineti</i> (Ach.) Vězda	<i>Coenogonium pineti</i> (Ach.) Lücking & Lumbsch	Lücking et al. (2004: 290)
<i>Enterographa zonata</i> (Korb.) Källsten	<i>Opegrapha zonata</i> Korb.	Sparrius (2004: 98)
<i>Gyalideospsis anastomosans</i> P. James & Vězda	<i>Jamesiella anastomosans</i> (P. James & Vězda) Lücking, Sérus. & Vězda	Lücking et al. (2005: 165)
<i>Lecidea pycnocarpa</i> (Korb.) Ohlert	<i>Miriquidica pycnocarpa</i> (Korb.) Andreev	Andreev (2004: 34)
<i>Macentina abscondita</i> Coppins & Vězda	<i>Psoroglaena abscondita</i> (Coppins & Vězda) Hafellner & Türk	Hafellner & Türk (2001: 116, 157)
<i>Myxobilimbia lobulata</i> (Sommerf.) Hafellner	<i>Bilimbia lobulata</i> (Sommerf.) Hafellner & Coppins	Veldkamp (2004: 195)
<i>Myxobilimbia sabuletorum</i> (Schreb.) Hafellner	<i>Bilimbia sabuletorum</i> (Schreb.) Arnold	Veldkamp (2004: 195)
<i>Pyrenocollema halodytes</i> (Nyl.) R. C. Harris	<i>Collemopsidium halodytes</i> (Nyl.) Grube & B. D. Ryan	Grube & Ryan (2002: 163)
<i>Strangospora ochrophora</i> (Nyl.) R. A. Anderson	<i>Piccolia ochrophora</i> (Nyl.) Hafellner	Hafellner (2004)

4. New or interesting reports

Abrothallus buellianus De Not.

Belgium, Ard.: Nassogne, SE side of village, near water-tower, small square with trees (J6.27), on *Fraxinus*, on *Parmelina tiliacea*, 4.2001, *P. van den Boom* 26444 (h). Mosan: NNW of Eupen, SW of Neu-Moresnet, junction of brooklet 'Hohnbach' and 'Grünstrasserbach', old chapel (Rochus) with one mature *Tilia* tree (400 years old) (F8.12), on trunk of *Tilia*, on *P. tiliacea*, 9.2005, *P. & B. van den Boom* 35618 (h).

Luxembourg, Lorr.: 6 km SE of Ettelbruck, Schrondeweiler (L8.16), sur *Aesculus*, sur *P. tiliacea*, 5.1991, *P. van den Boom* 11289 (h, hb. Diederich).

Germany: Rheinland-Pfalz, Bitburg, 300 S of Masholder (K9.24), on *Malus* in an orchard, on *P. tiliacea*, 4.1988, *G. Brown* (hb. Diederich); SE of Wintrich, Kasholz, Naturdenkmal Eiche (K10.44), on *Quercus*, on *P. tiliacea*, 5.1987, *V. John* 5694 (h, hb. Diederich).

Greece: Cyclades, Naxos, Keramoti (37°7' N, 25°31' E), 480 m, on *Olea europaea*, on *P. tiliacea*, 10.1995, *A. Scharlau* 325 (B).

U.S.A.: California, San Luis Obispo Co., Santa Margarita Lake Recreation Area, E of San Luis Obispo, from Santa Margarita (town), take State Rt. 58, right on Pozo Rd., c. 8 mi. from Santa Margarita to entrance rd. to Park, on *P. quercina*, 12.1996, *S. Tucker* 35126 (SBBG).

The lichenicolous genus *Abrothallus* is in an urgent need of a modern revision, and many specimens, especially from unusual hosts, cannot be identified with certainty. Owing to an obviously high host-specificity within the genus, many lichenologists tend to name *Abrothallus* specimens following their host. Specimens growing over *Parmelina* species were difficult to name, as no epithet based on that host genus was used in recent works. However, there is an old name based on such material, *Abrothallus buellianus* De Not., described from Italy on *P. tiliacea* (De Notaris 1846: 193-195).

The material that we have examined on *Parmelina* is morphologically distinguished from most other known *Abrothallus* species by an epihymenium that does not turn green in K. This missing reaction is also known from *Abrothallus acetabuli* Diederich, a species apparently confined to *Pleurosticta acetabulum*. In one locality (Schrondeweiler), *Abrothallus* apothecia were collected on both

Pleurosticta acetabulum and *Parmelina tiliacea*, suggesting that we might have a single species, confined to both host genera. In that case, *A. acetabuli* would become a synonym of *A. buellianus*. However, as many *Abrothallus* species seem to be confined to one host genus, it is possible that two distinct, possibly cryptic species are involved, one confined to *Parmelina* and one to *Pleurosticta*. Such a hypothesis would be supported by the observation that both host genera, *Parmelina* and *Pleurosticta*, belong to distinct lineages in the phylogenetic tree obtained by Blanco et al. (2004a: fig. 1). For the time being, as long as no morphological revision and no molecular phylogenetic studies are available, and as the type of *A. buellianus* has not been revised, we propose to use the name *A. buellianus* for the *Abrothallus* material growing on *Parmelina*, and to continue using *A. acetabuli* for the material on *Pleurosticta*.

This lichenicolous fungus is new for our study area, for Germany, Greece and the U.S.A.

Absoconditella delutula (Nyl.) Coppins & H. Kilius

Belgium, Lorr.: Musson, réserve du crassier de Musson (M7.36), old disused quarry, vertical facing sand, 4.2003, *P. van den Boom* 30664 (h).

Lichen species new for the area of study.

Anisomeridium ranunculosporum (Coppins & P. James) Coppins

France, Boul.: Pas-de-Calais, forêt de Boulogne (F22.17), futaie de chênes et de frênes, 8.1984, *E. Sérusiaux* 6852 (LG).

This lichen species was not detected in the recent study of lichen flora of the Boulonnais (Sparrus et al. 2002) and is new for the area of study.

Arthonia epiphyscia Nyl.

Luxembourg, Lorr.: SW of Differdange, near crossing along road N176 and N176a to Lasauvage (M7.48), on *Acer* roadside trees, on *Physcia caesia*, 4.2003, *P. van den Boom* 30735 (h).

The lichenicolous *Arthonia* material on *Phaeophyscia orbicularis*, published by Diederich (1986: 7; 1989: 38-39) as *A. epiphyscia*, has eventually been assigned to *A. phaeophysciae*

Grube & Matzer, and the genuine *A. epiphyscia* was thus unknown from our region. The species is therefore new for the study area.

Bouly de Lesdain (1914: 156) reported the species from northern France (Mar.) on *Physconia perisidiosa*. As *Arthonia epiphyscia* is hitherto known only from *Physcia* s. str. (Grube & Matzer 1997), the identity of Bouly de Lesdain's material remains doubtful in the absence of any herbarium specimen.

Arthonia punctella Nyl.

France, Mar.: Pas-de-Calais, Cap Gris-Nez, S part (E22.14), rocky seashore cliffs with sandstone rock and grassy places, on *Diplotomma albostratum*, 2004, P. van den Boom 33689 (h, hb Diederich).

Lichenicolous fungus new for the study area.

Brodoa atrofusca (Schaer.) Goward

Belgium, Ard.: Bihain, anciennes exploitations de coticule sur la crête au NE du village (H7.47), déblais de phyllades, 6.1964, J. Lambinon 64/750 et R. Schumacker 64/19 (LG).

This single collection (which has been split into two herbarium specimens) has been known as *Brodoa intestiniformis* (Vill.) Goward [= *Hypogymnia intestiniformis* (Vill.) Ach.] since its discovery (Diederich & Sérusiaux 2000: 75). It has been re-examined carefully, incl. by TLC analysis. The thallus is rather thick, lacks any flattened secondary lobes and produces physodic and protocetraric acids: there is thus no doubt that it belongs to *Brodoa atrofusca* (Schaer.) Goward (Krog 1974; Goward 1986). No other collection exists from the area of study and the species is now considered extinct in it. *Brodoa intestiniformis* must be deleted from the checklist of Belgium and Luxembourg, and *B. atrofusca* must be added.

Caloplaca cerinelloides (Erichsen) Poelt

Belgium, Ard.: Witry, 10 km W of Martelange, on roadside *Fraxinus* trees (K7.54), 4.2003, P. van den Boom 30676 (h).

A most probably overlooked species, formerly known only from northern France (Mar.: Sparrius et al. 2002: 60; Lorr.: Diederich et al. 2005).

Cercidospora macrospora (Uloth) Hafellner & Nav.-Ros.

Belgium, Lorr.: SE of Arlon, SE of Hondelange, churchyard (M8.18), on tombstone, on *Lecanora muralis*, 4.2003, P. van den Boom 30659 (h).

Luxembourg, Lorr.: Ansembourg, garden of castle along main road (L8.44), 9.2005, on walls in garden and on wall of castle, on *L. muralis*, P. Diederich 16181 (h); NE of Kehlen, cemetery of Schéimerech (L8.54), 9.2005, on an old wall, on *L. muralis*, P. Diederich 16196 (h).

Netherlands: Limburg, Maastricht, city wall near the corner of the 'Nieuwenhofstraat', wall of former fortification (E7.25), 5.1998, on a brick wall, on *L. muralis*, P. Diederich 13652 (h).

This lichenicolous species has just been reported from Belgium (Camp.) by van den Boom & van den Boom (2006), and is probably widespread on its very common host *Lecanora muralis*.

Chaenotheca brunneola (Ach.) Müll. Arg.

Belgium, Ard.: Willerzie, Vallée de la Hulle, Prés à l'Eau (K5.16), 300 m, sur *Quercus*, 5.2005, D. Ertz 8793 (BR).

Luxembourg, Ard.: Bockholz-lès-Hosingen, 1 km à l'E du village (K8.14), tronc mort dressé en forêt, 9.2005, D. Ertz 8990 (BR).

A lichen species formerly known from a single collection in B Ard. and here reported from two other localities.

Chaenotheca laevigata Nád.v.

Luxembourg, Lorr.: Berdorf, à 1 km au S de Vogelsmühle, rive droite de l'Ernz Noire (L9.11), sur *Populus*, dans un pâturage, 9.2003, P. Diederich 15752 (h).

Lichen species new for the study area.

Chaenotheca xyloxena Nád.v.

Belgium, Ard.: 9 km au SE du centre d'Eupen, versant gauche de la Helle, en aval du lieu-dit Brandehaag (F8.55), 500 m, bois mort décoré d'un tronc mort dressé d'un *Fagus* dans une vieille hêtraie de pente, dans une cavité abritée d'un tronc, 4.2003, D. Ertz 3259 (BR).

This lichen is a characteristic species of well preserved and old forests with a high amount of dead wood. The species is new to Belgium where it occurs on the sheltered parts of a trunk. In the area of the checklist, it was

known only from two localities in Luxembourg, of which only one is recent and the other from 1892.

Chaenothecopsis pusilla (Ach.) A. F. W. Schmidt

France, Ard.: SE of Revin, S of Anchamps, left side of the Meuse, "rocher des Dames" (K5.33), overhang of schistose outcrop, on *Psilolechia clavulifera*, 5.2000, *P. van den Boom* 24456 (h).

Very rare and inconspicuous species, lichenicolous or not lichenized, previously known from a single report from L Ard., and for which *Psilolechia clavulifera* is a newly reported host.

Cladonia phyllophora Hoffm.

Luxembourg, Ard.: Lellingen, à 200 m au nord du village (K8.13), terricole, dans une lande siliceuse, 9.2005, *P. Diederich* 16224 (h) & *E. Sérusiaux* s. n. (LG).

Cladonia phyllophora is a very rare species in the area covered by the checklist, being known only from two collections made during the 19^e century (B Brab and L Lorr) and from a further recent collection near Lellingen (L Ard). A small population of this species has recently been studied in the same area, e. g. the most interesting heathland and open grasslands N of Lellingen, where it grows in an interesting community together with species such as *C. cervicornis*, *C. foliacea*, *C. ramulosa*, *C. strepsilis*, *C. uncialis*, *Leptogium palmatum* (= *L. corniculatum*), *Peltigera malacea*, etc.

Clauzadeana macula (Taylor) Coppins & Rambold

Belgium, Ard.: Willerzie, ruisseau des Rousseries, en aval du lieu-dit Marotelle (K5.16), affleurement naturel de quartzophyllades cambriennes dans une chênaie acidophile, c. 400 m, 6.2005, *E. Sérusiaux* s. n. (LG, hb Diederich).

A very rare lichen species, previously only known from B Ard., near Vielsalm, and now recorded in small quantities on the western side of the Ardenne district.

Collemopsidium foveolatum (A. L. Sm.) F. Mohr

France, Mar.: Pas-de-Calais, Cap Gris-Nez, à partir de la plage au N de Framzelle vers l'W, sur une distance de 300 m (E22.15), sur des rochers en bord de mer inondés lors des marées hautes, sur *Balanus* et *Patella*, 8.2000, *P. Diederich* 14379 (h) & *J. Signoret*; Boulogne-sur-Mer (E22.44), pierres de la digue nord du port, au-dessus des *Fucus* et *Enteromorpha*, 11.1963, *J. Lambinon* 63/1637 p.p. (LG).

Collemopsidium halodytes was the only species of the genus included in the checklist of Belgium, Luxembourg and northern France (Diederich & Sérusiaux 2000). The remarkable paper by Mohr et al. (2004) allowed reviewing the entire available material, resulting in the recognition of three species in our checklist area. *Collemopsidium foveolatum* is new for this area.

Collemopsidium halodytes (Nyl.) Grube & B. D. Ryan

Syn.: *Pyrenocollema halodytes* (Nyl.) R. C. Harris
Belgium, Mar.: Blankenberge (B1.48), sur les pierres calcaires du brise-lames en bordure E du petit port, 6.1967, *J. Lambinon* 67/397 & 398 (LG); Nieuport, crique de Lombardsijde (rive droite de l'Yser) (C1.41), dans le bas du mur incliné à env. 45° de la digue en briques, 6.1968, *J. Lambinon* 68/460 (LG).

France, Mar.: Pas-de-Calais, Ambleteuse, rochers dans la mer près de l'Ancien Fort Mahon, (E22.35), blocs en grès émergés en permanence, 8.2000, *P. Diederich* 14432 p.p. (h, sub *Caloplaca thallicola*) & *J. Signoret*; Cap Gris-Nez, à partir de la plage au N de Framzelle vers l'W, sur une distance de 300 m (E22.15), sur des rochers en grès en bord de mer inondés lors des marées hautes, 8.2000, *P. Diederich* 14378 (h) & *J. Signoret*; S of Cap Gris Nez, Cran aux Oeuifs (E22.14), rocky seashore cliff with sandstone rock, 7.1999, *L. Sparrius* 3080 (h); Wimereux, pointe aux Oies (E22.35), 7.1999, sandstone blocks on beach, *L. Sparrius* 3106 (h); Somme, Ault, base de la falaise au SW de la localité (J22.21), sur silex parfois submergé lors de hautes marées, 7.2001, *P. Diederich* 15043 (h).

See comments under *Collemopsidium foveolatum*.

Collemopsidium sublitorale (Leight.) Grube & B. D. Ryan

France, Mar.: Pas-de-Calais, Boulogne-sur-Mer (E22.44), pierres de la digue nord du port, au-dessus des *Fucus* et *Enteromorpha*, 11.1963, *J. Lambinon* 63/1637 p.p. (LG); *ibid.*, sur des blocs gréseux arrondis au pied de la digue nord du port, *J. Lambinon* 63/1643 (LG); *ibid.*, sur balanes, *J. Lambinon* 63/1644 (LG).

Lichen species new for the checklist area.

Coppinsia minutissima Lumbsch & Heibel

Belgium, Ard.: NE of St Vith, NW of Manderfeld, N of road to Holzheim, path to Buchholz (G8.18), W exposed slope with big *Picea* stumps in damp mossy ground, on sand of root system of fallen *Picea*, 500 m, 4.2002, *P. van den Boom* 28410 (h, LG).

Lichen species new for the area of study.

Cyphelium inquinans (Sm.) Trev.

Belgium, Ard.: Hautes-Fagnes, vallée de la Helle (F8.44), 400 m, Talboden mit Buchen-Eichenwald, Borke von *Quercus*, 12.2003, *N. Stapper* s. n. (h, LG).

This lichen species has been reported from Belgium by Duvigneaud & Giltay (1938: 16) but the corresponding material has never been located. It does occur in area of study, as demonstrated by this collection.

Eopyrenula grandicula Coppins

France, Boul.: Pas-de-Calais, forêt de Boulogne, N of road D 341 (E22.57), mixed forest with *Alnus*, *Corylus*, *Fraxinus* and *Quercus*, on *Corylus*, 9.2004, *P. van den Boom* 33723 (h).

This lichen species was not detected in the recent study of lichen flora of the Boulonnais (Sparrus et al. 2002). It was formerly known from the Semois valley in B Ard.

Fuscopannaria saubinetii (Mont.) P. M. Jørg.

Luxembourg, Lorr.: without locality, terricolous over sand, < 1850, *F.-A. Tinant* 1024 (LUX).

The identification of this scanty collection has always been doubtful (Sérusiaux 1984: 81; Sérusiaux et al. 1999: 33); it has been recently examined by P. M. Jørgensen who concludes it represents a poorly developed

F. leucophaea. As it represents the only collection referred to *F. saubinetii* from the area of study, this species must now be deleted from the checklist.

Imshaugia aleurites (Ach.) S. L. F. Meyer

Belgium, Ard.: Bévercé, rochers de Falize (G8.42), sur *Pinus sylvestris*, 7.1957, *T. Müller* (BR); *ibid.*, 11.1960, *J. Lambinon* 60/2414 & *R. Schumacker* 60/843 (LG); Logbiermé (H8.21), on *Pinus*, c. 1968, unknown collector (LG); Chevron, near crossing with road along the Lienne (G7.56), sloping schistose outcrops along the road, at rim of forest, on *Pinus*, 5.2001, *P. van den Boom* 26607 (h).

This easily recognized species of macrolichens is very rare in the area of study and was known from two localities in B Ard. (Bévercé, rochers de Falize and Logbiermé). Otherwise it is very local but quite widespread near Berdorf in L Lorr. where it is suspected to be restricted to indigenous populations of *Pinus sylvestris* (Diederich & Schwenninger 1990). It is thus interesting to report the new and unexpected locality at Chevron.

Lecanactis dilleniana (Ach.) Korb.

Belgium, Ard.: Willerzie, ruisseau des Rousseries, en aval du lieu-dit Marotelle (K5.16), affleurement naturel de quartzophyllades cambriennes dans une chênaie acidophile, c. 400 m, 6.2005, *E. Sérusiaux* s. n. (LG).

A very rare species, previously known only from B Ard., near Malmedy in the most famous Warche valley, and now recorded on the western side of the Ardenne district.

Lecanora sambuci (Pers.) Nyl.

Belgium, Ard.: S of Burg-Reuland, road to Ouren, N of Stubach (H8.55), small *Populus* wood with *Sambucus*, on *Sambucus*, 4.2004, *P. van den Boom* 32257 (h).

A very rare but easily identified lichen species, previously known from a single collection from L Lorr. but most probably overlooked.

Leptogium subtile (Schrad.) Torss.

Belgium, Mosan: Romedenne, argilière à 1 km au SW du village, rive droite du ruisseau "La Chinelle" (J5.13), talus terreux, 10.2004, *D. Ertz*

7278 (BR). Lorr.: Musson, réserve du “crassier de Musson” (M7.36), old abandoned quarry, vertical facing sand, 4.2004, *P. van den Boom* 30665 (h, LG).

Lichen species formerly reported only from L Lorr. and thus new for Belgium.

Melaspilea ochrothalamia Nyl.

Belgium, Ard.: E of Nassogne, SW Bostbeubois, N of Croix Jadot (J6.27), edge of mixed forest, on *Quercus*, 4.2001, *P. van den Boom* 36482 (h).

A most probably overlooked lichen species, previously reported only from a single locality in B Lorr.

Opegrapha gyrocarpa Flot.

Luxembourg, Gutland: SW de Berdorf, Weerschrummschloeff (L9.11), paroi de grès à la base d'un grand affleurement rocheux en sous-bois clair, 12.2004, *D. Ertz* 7515 (BR).

The species is new to Luxembourg. This is the first fertile specimen from the study area where the lichen was known only from two sterile specimens (Sérusiaux et al. 2003). Other localities have since been found elsewhere in B Ard., but are not further detailed here.

Opegrapha prosodea Ach.

Belgium, Fl.: “Sur lierre à Mariakerke” (D3.11), s. d., coll. *Coemans* (BR); *ibid.*, coll. *Coemans* 941 (BR).

The presence of this lichen in the checklist area is confirmed by two specimens collected in northern Belgium by Coemans more than a century ago. The species is very likely to be now extinct in the area of study.

Porpidia striata Fryday

Belgium, Ard.: 5.5 km ENE of Malmedy, valley of Warche, 0.4 km E of confluence (G8.35), 460 m, quartzite blocks of scree in narrow valley, exp N, 4.1990, *M. Brand* 23019b (h); Ovisfat, cascade de Bayehon (G8.24), 540 m, on acid rock, 7.1975, *M. Brand* 5314 (h); 2.5 km WNW of Spa, E shore of Hoegne (G8.22), 250 m, on schistose rocks on wooded W slope, 5.1998, *M. Brand* 37692 (h).

France, Ard.: c. 18 km NNE of Charleville-Mésières, 1 km W of Linchamps, valley of river Ours (K5.36), c. 220 m, on conglomerate rock

outcrop in narrow valley, wet slope with much *Sphagnum*, 10.1982, *M. Brand* 27892 (h).

This species has just been described by Fryday (2005: 16-19) from Great Britain, mainly Scotland and Wales. It is new for the area of study where it seems to be restricted to natural outcrops of Cambrian rocks.

Toninia physaroides (Opiz) Zahlbr.

Luxembourg, Lorr.: N de Niederaanven, Aarnescht (L8.58), dans une pelouse calcaire, 8.1985, *P. Diederich* 6797 (h); Graulinster, bord de route (L8.38), dans une pelouse calcaire, 7.1986, *P. Diederich* 7139 (h); E de Ernster, Warschent (L8.57), sur la terre dans une pelouse, 11.1990, *P. Diederich* 9146 (h).

This species is distinguished from the widespread *Toninia sedifolia* by pseudocyphellate, strongly bullate to columnar squamules. It is new to the area of study.

Tremella coppinsii Diederich & Marson

Belgium, Ard.: Achouffe, ruisseau de Martin Moulin, rive gauche, en aval de la route Dinez-Wibrin, juste en amont de la confluence avec le ruisseau du Pont du Moulin (J7.16), futaie claire de *Quercus* sur pente rocheuse, sur branche de *Quercus*, sur *Platismatia glauca*, 4.2000, *E. Sérusiaux* s. n. (LG); forêt d'Anlier, berge droite de La Rulle (L7.25), 420 m, sur un gros tronc d'*Alnus glutinosa* sur une berge de rivière, sur *P. glauca*, 5.2004, *D. Ertz* 6897 (BR); Herbeumont, versant droit de l'Antrogne (L6.26), 380 m, sur une branche morte horizontale d'un *Quercus* sur pied, sur *P. glauca*, 8.2004, *D. Ertz* 7034 (BR). Lorr.: SE of Buzenol, WSW of Saint-Léger, Bois d'Etalle, path along La Rouge Eau (M7.14), mixed forest, on fallen branch of *Quercus*, on *P. glauca*, 4.2003, *P. van den Boom* 30700 (h).

Lichenicolous heterobasidiomycete, new for the study area. This species seems to be restricted to well preserved and old forests.

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