

# LEJEUNIA

REVUE DE BOTANIQUE

Nouvelle série N° 173

Août 2003

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## NEW OR INTERESTING LICHENS AND LICHENICOLOUS FUNGI FROM BELGIUM, LUXEMBOURG AND NORTHERN FRANCE. IX

by

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### Abstract

With the extension of the area covered by the checklist of the lichens and lichenicolous fungi of Belgium and Luxembourg (DIEDERICH & SÉRUSIAUX, 2000) to the Boulogne and Picardy districts in NW France, and together with the results presented in this paper, the list of species present in that area now includes 1214 accepted taxa. 39 species of lichens and lichenicolous fungi are new records for the study area: *Abrothallus caerulescens*, *A. cladoniae*, *Agonimia gelatinosa*, *Arthonia digitatae*, *Bagliettoa parmigerella*, *Bryoria capillaris*, *Celothelium ischnobelum*, *Cladonia cyathomorpha*, *Dinemasporium strigosum*, *Epigloea renitens*, *Intralichen baccisporus*, *Kalaallia reactiva*, *Lasiosphaeriopsis salisburyi*, *Lecanactis dilleniana*, *Lecanora leuckertiana*, *L. zosteriae*, *Lecidea siderolithica*, *Leiorreuma lyellii*, *Neolamyia peltigerae*, *Opegrapha gyrocarpa*, *Parmelia ernstiae*, *Peltigera extenuata*, *P. monticola*, *Phacopsis fusca*, *Polydesmia lichenis*, *Pronectria oligospora* var. *octospora*, *P. pertusariicola*, *Ramonia interjecta*, *Rimularia insularis*, *Roselliniella atlantica*, *Stigmidium aggregatum*, *S. mycobilimbiae*, *S. peltideae*, *Trichonectria anisospora*, *Unguiculariopsis thallophila*, *Verrucaria elaeina*, *V. hegetschweileri*, *V. papillosa* and *Xanthoria ulophyllodes*, whilst the presence in that area is confirmed for *Clauzadea*

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*chondrodes*, *Endocarpon adscendens*, *Epilichen scabrosus* and *Paranectria oropensis*. *Bryoria implexa*, *Cliostomum corrugatum*, *Phacopsis oxyspora*, *Rhizocarpon plicatile* and *Vouauxiella verrucosa* have to be deleted from that flora. New data are presented for rare or overlooked species, and further information on the nomenclature or taxonomy now adopted is given for several taxa. Two new combinations are proposed: *Tremella caloplacae* (bas. *Lindauopsis caloplacae*) and *Trichonectria anisospora* (bas. *Nectriella anisospora*). A neotype is chosen for *Epicladonia stenospora*.

**Résumé:** *Lichens et champignons lichénicoles nouveaux ou intéressants pour la flore de la Belgique, du Luxembourg et du nord de la France. IX.*

Avec l'extension du territoire étudié dans la checklist des lichens et des champignons lichénicoles de Belgique et du Luxembourg (DIEDERICH & SÉRUSIAUX, 2000) aux districts boulonnais et picard dans le NW de la France, et avec les résultats présentés dans cet article, la liste des espèces présentes dans ce territoire comprend maintenant 1214 taxons acceptés. 39 espèces de lichens et de champignons lichénicoles sont nouvelles pour le territoire étudié: *Abrothallus caeruleus*, *A. cladoniae*, *Agonimia gelatinosa*, *Arthonia digitatae*, *Bagliettoa parmigerella*, *Bryoria capillaris*, *Celothelium ischnobelum*, *Cladonia cyathomorpha*, *Dinemasporium strigosum*, *Epigloea renitens*, *Intralichen baccisporus*, *Kalaallia reactiva*, *Lasiosphaeriopsis salisburyi*, *Lecanactis dilleniana*, *Lecanora leuckertiana*, *L. zosteriae*, *Lecidea siderolithica*, *Leiorreuma lyellii*, *Neolamya peltigerae*, *Opegrapha gyrocarpa*, *Parmelia ernstiae*, *Peltigera extenuata*, *P. monticola*, *Phacopsis fusca*, *Polydesmia lichenis*, *Pronectria oligospora* var. *octospora*, *P. pertusariicola*, *Ramonia interjecta*, *Rimularia insularis*, *Roselliniella atlantica*, *Stigidium aggregatum*, *S. mycobilimbiae*, *S. peltideae*, *Trichonectria anisospora*, *Unguiculariopsis thallophila*, *Verrucaria elaeina*, *V. hegetschweileri*, *V. papillosa* et *Xanthoria ulophyllodes*, tandis que la présence de *Clauzadea chondrodes*, *Endocarpon adscendens*, *Epilichen scabrosus* et *Paranectria oropensis* est confirmée. *Bryoria implexa*, *Cliostomum corrugatum*, *Phacopsis oxyspora*, *Rhizocarpon plicatile* et *Vouauxiella verrucosa* doivent être supprimés de cette flore. De nouvelles données sont présentées pour des espèces rares ou méconnues, et des informations complémentaires sur la taxonomie adoptée aujourd'hui sont données pour plusieurs taxons. Deux combinaisons nouvelles sont proposées: *Tremella caloplacae* (bas. *Lindauopsis caloplacae*) et *Trichonectria anisospora* (bas. *Nectriella anisospora*). Un néotype est choisi pour *Epicladonia stenospora*.

## INTRODUCTION

This paper continues the series of notes on the flora of lichens and their lichenicolous fungi in Belgium and Luxembourg (SÉRUSIAUX et al., 1999) and thus provides further additions or changes to the checklist of the species present in that area (DIEDERICH & SÉRUSIAUX, 2000). It includes a summary of the recent literature pertinent to the species present, incl. that pertaining to taxonomic or nomenclature changes for the species concerned, and the results obtained on previously overlooked collections and recently collected material. Under the enumeration of specimens, (h) denotes the private herbarium of the collector. Other abbreviations and symbols are the same as those used by DIEDERICH &

SÉRUSIAUX (2000): \* denotes a lichenicolous fungus, (\*) a lichenicolous lichen, + a non-lichenized and non-lichenicolous fungus; **B**, **L** and **F** denote the countries Belgium, Luxembourg and France respectively; Ard., Lorr., Mosan, etc. denote the phytogeographical districts.

Subsequently to an extensive study of the lichen flora of the 'Boulonnais' in northern France (SPARRIUS et al., 2002), the authors of the Checklist (DIEDERICH & SÉRUSIAUX, 2000) decided to expand the study area of this checklist to the Boulogne and Picardy districts, entirely including the departments Nord, Pas-de-Calais and Somme in France. In a recent paper, TOUSSAINT et al. (2002) redefined the borders of the Boulogne, Picardy and Brabant districts in northern France, and we follow this new subdivision strictly.

### RECENT LITERATURE PERTINENT TO THE STUDY AREA

Since the previous paper published in this series (SÉRUSIAUX et al., 1999) and the publication of the checklist (DIEDERICH & SÉRUSIAUX, 2000), the following contributions to the lichen and lichenicolous flora of the study area or relevant to their taxonomic status have been published:

- MARBACH (2000) revises the tropical and subtropical *Buellia* s. l. species and accepts a much narrower genus concept with 13 distinct genera. As long as the phylogeny of the European members of the genus has not been critically re-examined, we prefer to continue to treat the genus in its broad sense, including *Amandinea* and other recent segregates.
- APTROOT et al. (2001a) distinguish the new species *Cladonia monomorpha* Aptroot, Sipman & van Herk in the *C. pyxidata* aggregate and report the species from several localities in Belgium, Luxembourg and northern France. It is mostly found on acid soil and siliceous rocks. Further attention should thus be paid to this group of species in the study area to assess their ecology and local distribution.
- APTROOT et al. (2001b) investigate the occurrence of several recently described species from the Netherlands in adjacent countries, incl. part of the area dealt with in this paper. They report the following as new for Luxembourg: *Bacidia* (syn.: *Bacidina*) *neosquamulosa*, *Placopyrenium trachyticum*, *Verrucaria macrostoma*, and *Verrucaria ochrostoma* (however, the latter three were already known from that country; see DIEDERICH & SÉRUSIAUX, 2000: 144, 173 & 174). They also strongly suggest that the material called *Lecidella conspurcatosorediosa* (Harm.) Diederich is merely a corticolous form of the more widespread and saxicolous *L. scabra* (Taylor) Hertel & Leuckert.
- Although it has no major significance for the list of species found in the area of study, the paper by GEEBELEN & HOFFMANN (2001) is worth mentioning as their evaluation of bio-indication methods using epiphytes by correlating with SO<sub>2</sub>-pollution parameters is based on studies in the northern part of Belgium.

- The most outstanding checklist of the lichens of Austria (HAFELLNER & TÜRK, 2001) introduces important nomenclatural changes, as well as the assignment of many species to new genera. The following are relevant for the area dealt with in this paper: *Mycobilimbia epixanthoides* (Nyl.) Vitik. et al. (syn.: *Biatora epixanthoides*), *M. lurida* (Ach.) Hafellner & Türk (syn.: *Psora lurida*), *M. pilularis* (Körb.) Hafellner & Türk (syn.: *Biatora sphaeroides*); *Myxobilimbia* Hafellner with *M. lobulata* (Sommerf.) Hafellner (syn.: *Mycobilimbia lobulata*) and *M. sabuletorum* (Schreb.) Hafellner (syn.: *Mycobilimbia sabuletorum*); *Psoroglaena abscondita* (Coppins & Vězda) Hafellner & Türk (syn.: *Macentina abscondita*). They use the name *Protoparmeliopsis muralis* (Schreb.) M. Choisy for the common *Lecanora muralis*; we find this proposal pre-mature, as a detailed phylogenetic study of the entire genus *Lecanora* should in our opinion precede any taxonomic changes. The new combination *Fuscidea fagicola* (Zschacke) Hafellner & Türk is introduced for the corticolous form of *F. cyathoides* [also known as var. *corticola* (Fr.) Kalb], but the genuine identity of such populations in our area requires further studies.
- SANTESSON (2001) has validly published *Lichenopeltella hydrophila* R. Sant. in his *Fungi Lichenicoli Exsiccati* n° 319; the type collection originates from the area of study (Luxembourg).
- SÉRUSIAUX et al. (2001) describe the new corticolous species *Fellhanera gyrophorica* Sérus., Coppins, Diederich & Scheidegger from several localities of well-preserved forests in Central Europe. It was reported as *Fellhanera* sp. in DIEDERICH & SÉRUSIAUX (2000: 101). In the study area, it is known from two localities in the Berdorf area in Luxembourg (Lorr. district).
- In a detailed phylogenetic analysis of the lichenicolous fungi belonging to *Hobsonia*, *Illosporium* and *Marchandiomyces*, SIKAROODI et al. (2001) found that *Hobsonia christiansenii* B. L. Brady & D. Hawksw. (DIEDERICH & SÉRUSIAUX, 2000: 104) must be transferred to the new genus *Illosporiopsis* D. Hawksw., related to hypocrealean ascomycetes. They also demonstrate that both species of *Marchandiomyces* reported from the area of study (DIEDERICH & SÉRUSIAUX, 2000: 121) form a clade and are genuine basidiomycetes.
- VAN DEN BOOM & COPPINS (2001) describe the new species *Micarea viridileprosa* Coppins & van den Boom as a corticolous, lignicolous or terricolous species on acid substrata in western Europe. In the checklist (DIEDERICH & SÉRUSIAUX, 2000: 125) it was included in *M. prasina* Fr. which was said to include two different species. It could be rather widespread in the area of study, at least in the Mosan, Ard. and Lorr. districts. It hosts the lichenicolous ascomycete *Nectriopsis micareae* Diederich, van den Boom & Ernst, known from the Camp. and Mar. districts.
- Material of *Protoparmelia oleaginea* (Harmand) Coppins, collected in 2001 in Belgium (Ard.: Nassogne, J6.28, dupl. in LG) on *Quercus* by *P. van den Boom*, was distributed in Vězda *Lichenes Rariores Exsiccati* n° 460. The species is new for the area of study.

- The proposal to conserve *Bacidina* Vězda against *Lichingoldia* D. Hawksw. & Poelt and *Woessia* D. Hawksw. & Poelt has been adopted by the Committee for Fungi (*Taxon* 50: 269, 2001). It must however be remembered that an older genus name has meanwhile been detected for this group of species, viz. *Lopacidia* Kalb (KALB et al., 2000: 282). It should also be noted that a detailed phylogenetic study of the Bacidiaceae by EKMAN (2001) demonstrates that most of the species included in *Bacidina* or *Woessia*, incl. the type of *Woessia*, form a clade, whilst *B. phacodes*, the type of *Bacidina*, may or may not be included in this group. We suggest that no additional nomenclatural changes should be proposed as long as the monophyly of the entire group has not been proved definitely.
- COPPINS & VAN DEN BOOM (2002) describe the new *Bacidia brandii* Coppins & van den Boom, growing on various substrates (ground, brick, lignum and plant debris) and found in the Netherlands, Belgium, France and Lithuania.
- DIEDERICH et al. (2002) describe the new genus and species of lichenicolous coelomycetes *Cladonicicola staurospora* Diederich, van den Boom & Aptroot, growing on several species of *Cladonia*, mainly in heathlands. The species is reported from the Mar. district.
- EKMAN & TØNSBERG (2002) study the phylogeny of *Lepraria* and *Leproloma* using molecular sequences. They demonstrate that most species of the two genera form a monophyletic group closely related to *Stereocaulon*, and that both genera cannot be separated. They furthermore find that *Lepraria flavescens* belongs to *Lecanora* (but no nomenclatural change is proposed), and that *Botryolepraria lesdainii* and *L. obtusatica* are both not related to *Lepraria*. In another paper, TØNSBERG (2002) introduces the new name *Lepraria flavescens* Cl. Roux & Tønberg for *L. flavescens* Clauzade & Cl. Roux nom. inval.
- LEUCKERT et al. (2002) mention *Lepraria eburnea* from Belgium (Ard. district). This species was previously known from a single Belgian record (DIEDERICH & SÉRUSIAUX, 2000).
- MOLINA et al. (2002) use molecular data to demonstrate that *Diploicia* and *Diplotomma* form a monophyletic clade and are distinct from other *Buellia* species. *Diplotomma* should therefore be treated as a distinct genus. The authors also suggest that *Diploicia* should be considered as a synonym of *Diplotomma*; we hesitate to accept this as both genera are monophyletic in the phylogeny proposed by these authors.
- REDHEAD et al. (2002) describe the new genus *Lichenomphalia* Redhead et al. to accommodate the lichenized species formerly included in *Omphalina*. Two species from Belgium and Luxembourg are concerned: *L. hudsoniana* (H. S. Jenn.) Redhead et al. (syn.: *O. hudsoniana*) and *L. umbellifera* (L.: Fr.) Redhead et al. (syn.: *O. umbellifera*).
- ROUX & GUEIDAN (2002: 147-148) show that *Buellia epipolia* auct. and *B. venusta* (Körb.) Lettau are two distinct species, and that the oldest valid name for *B.*

*epipolia* auct. is *Buellia hedinii* H. Magn. The populations present in our study area all belong to *B. hedinii*. The name has not yet been combined in *Diplotomma*.

- ROUX et al. (2002) show that *Polyblastia deminuta* Arnold, known from the Mosan district in Belgium, is a non-lichenized, lichenicolous fungus growing on endolithic, often poorly developed lichens, and that it belongs to the genus *Merismatium*. They introduce the new combination *M. deminutum* (Arnold) Cl. Roux & Nav.-Ros.

- SPARRIUS et al. (2002) have studied in detail the lichen flora of the Boul. district in northern France (LAMBINON et al., 1998; TOUSSAINT et al., 2002), as well as the southern part of the Mar. district and the most north-western parts of the Pic. district. The area covered by the checklist (DIEDERICH & SÉRUSIAUX, 2000) is expanded to include those areas. The following species are thus reported as new for the area of study: *Bacidia laurocerasi*, *Caloplaca cerinelloides*, *C. marina*, *C. microthallina*, *C. thallicola*, *Chrysothrix flavovirens*, *Cladonicicola staurospora* (see above), *Cliostomum flavidulum*, *Cryptolechia carneolutea*, *Didymellopsis collematum*, *Gyalidea minuta*, *Lecania atrynoides*, *Lecanora jamesii*, *Lichina confinis*, *Mycomicrothelia confusa*, *Opegrapha sorediifera*, *Verrucaria erichsenii*, *V. halizoa*, *V. maura* and *V. sandstedei*. They further demonstrate that *Cliostomum corrugatum* does not occur in the study area.

- STAIGER (2002) presents a remarkable revision of the Graphidaceae and a more natural genus delimitation. A few species known from our study area are concerned. *Graphis britannica* Staiger is a new name for *Graphina anguina* auct. europ. The genus *Phaeographis* is only partly treated by this author, as a complete treatment is planned to be published separately. Amongst the four species known from the study area, she accepts *P. dendritica* (type species of the genus) and transfers *P. lyellii* to *Leiorreuma* Eschw. as *L. lyellii* (Sm.) Staiger. *Phaeographis smithii* and *P. inusta* are not treated.

- THÜS (2002) revises the aquatic *Verrucaria* species from Central Europe. He mentions *Verrucaria praetermissa* from the Ard. district in Belgium.

- VANBRUGGHE et al. (2002) report the discovery of *Usnea articulata* in France, Pas-de-Calais, near Montreuil-sur-Mer (Mar. district, G22.27) in 1996. They furthermore mention an older record of the same species in France, Pas-de-Calais, between Fruges and Créquy (Pic. district, G21.15) in 1972.

- DIEDERICH & SÉRUSIAUX (2003) describe the new *Stromatopogon cladoniae* Diederich & Sérus., an extraordinary lichenicolous fungus growing on *Cladonia polydactyla* in Belgium (Ard. district).

- DIEDERICH et al. (2003) report the discovery of the teleomorph of *Marchandiomyces aurantiacus*, for which they introduce the new genus and species name *Marchandiobasidium aurantiacum* Diederich & Schultheis. The genus is close to *Waitea* Warcup & P. H. B. Talbot and is tentatively included in the Ceratobasidiales.

- ERTZ (2003) presents a detailed study of the saxicolous and terricolous lichen flora from 29 selected, calcareous sites from the Belgian Mosan district. A total of 198 species of lichens and lichenicolous fungi were recorded, including *Collema coccophorum* Tuck., new for the study area, and *Lempholemma chalazanum* (Ach.) B. de Lesd., confirmed for that area.
- VAN DEN BROEK (2003) presents a lichen inventory of 10 cemeteries near Antwerp. A total of 90 species are recorded, varying from 26 to 67 per cemetery.
- A re-appraisal of the European members of the *Cladonia cervicornis* group by VAN HERK & APTROOT (2003) let the authors conclude that the three known taxa, often treated as subspecies of a single species, deserve species rank. These are: *Cladonia cervicornis* (Ach.) Flot. s. str., *C. pulvinata* (Sandst.) van Herk & Aptroot and *C. verticillata* (Hoffm.) Schaer.

## RESULTS

### \**Abrothallus caerulescens* Kotte

Luxembourg, Ard.: Bourscheid, along road to Ettelbruck, near Michelau (K8.45), W exposed schistose outcrops along road, on *Xanthoparmelia conspersa*, 10.2002, P. & B. van den Boom 29891 (h).

The lichenicolous genus *Abrothallus* is in urgent need of a modern taxonomic revision. As long as no such revision is available, we prefer to call all specimens on *Xanthoparmelia A. caerulescens*, although we are aware that the delimitation of this species is not yet entirely clear. New for the study area.

### \**Abrothallus cladoniae* R. Sant. & D. Hawksw.

Luxembourg, Lorr.: W of Kayl, Monument des mineurs (M8.53), vertical shaded boulder, on *Cladonia pyxidata* ssp. *pocillum*, 10.2002, P. & B. van den Boom 29867 (h).

A lichenicolous ascomycete new for the study area.

### \**Agonimia gelatinosa* (Ach.) Brand & Diederich

France, Mar.: Somme, au NW de St-Valéry-sur-Somme, pointe du Hourdel, à l'E du phare, levée de galets (H22.44), sur sable et mousses recouvrant des galets, 7.2001, P. Diederich 15358 (h); au N d'Ault, à 800 m au NW de la ferme d'Onival, à 200 m de la mer (J22.22), sur de la terre recouvrant des galets, 7.2001, P. Diederich 15278 (h).

The species grows with other interesting terricolous lichens, like *Agonimia globulifera*, *A. tristicula*, *A. vouauxii*, *Toninia sedifolia* and *Verrucaria bryoctona*. It is new for the study area.

### \**Arthonia digitatae* Hafellner

Luxembourg: S. loc., on *Cladonia subulata*, before 1850, F.-A. Tinant 659 (LUX).

This species was recently described as an aggressive parasite on the squamules of the primary thallus of *Cladonia digitata* (HAFELLNER, 1999). Our specimen grows on a different host, *C. subulata*, mainly apically on the podetia, and does not visibly damage the host.

A short description follows: ascomata blackish, 50-125 µm in diam.; exciple thin and pale; hymenium and hypothecium pale; epihymenium pale, but darkened through the presence of a brown parasitic hyphomycete; pigment K- or more olivaceous or greyish; hymenium K/I+ pale blue, reaction weak, possibly due to the age of the specimen; paraphyses short-celled, branched, irregular, almost contorted, 2.5-4.5 µm thick, apically not swollen nor pigmented; asci at least 5-spored, elongate ellipsoid, 21-29 × 8.5-12 µm; ascospores hyaline, becoming pale brownish when overmature, 1-septate, constricted at septum, 10.3-12.5 × 4-4.5 µm.

Morphologically, our specimen is very similar to the published description of *A. digitatae*. An alternative could be *Lecidea epicladonia* Nyl., a poorly known species possibly belonging to *Arthonia* (ALSTRUP & HAWKSWORTH, 1990). For the moment, we prefer to call our specimen *A. digitatae*, but we are aware that the discovery of more specimens of *Arthonia* on different *Cladonia* species, and a subsequent revision of that material, might lead to a different conclusion.

### ***Bacidia neosquamulosa*** Aptroot & van Herk

Belgium, Fl.: Wilrijk, Kerkhof Steytelinck (C4.36), on *Populus*, 12.2002, *D. Van den Broek* (hb Diederich). – Ard.: W of Gedinne, along étang de Boiron (K5.17), on branches of *Picea*, 5.2000, *P. van den Boom* 24359 (h); Nassogne, near water-tower (J6.27), square with *Fraxinus*, 5. 2001, *P. van den Boom* 26448 (h).

This species was known from a single locality in **B** Fl. (DIEDERICH & SÉRUSIAUX, 2000: 177) and was also reported from **L** Lorr. (APTROOT et al., 2001b). It might be rather common and widespread in the area of study, as suggested by the additional collections from **B** Fl. and Ard.

### ***Bagliettoa parmigerella*** (Zahlbr.) Vězda & Poelt

Belgium, Mosan: Huy, éperon rocheux à l'entrée du vallon du ruisseau de Solières (SE de Bas-Oha) (G6.14), rocher calcaire compact ombragé en sous-bois, 3.2002, *D. Ertz* 650 (LG).

Luxembourg, Lorr.: Lasauvage, rocher de tuf calcaire dans le village (M7.48), 9.1999, *P. Diederich* 13886 (h).

New for the study area.

### ***Bryoria capillaris*** (Ach.) Brodo & D. Hawksw.

Belgium, Ard.: 'sur les arbres dans le bois de Sourbrodt' (G8.25), before 1830, *M. A. Libert* s. n. (BR, with *B. fuscescens*); Reinartzhof (F9.35), sur *Quercus* en futaie,



11.1960, *A. Froment* s. n. (LG); Petit Bongard, rive droite de la Helle (F8.55), sur *Betula pubescens*, 7.1969, *R. van Hulst* s. n. (LG); 10 km SE of Laroche, N of Le Cheslin (J7.25), small *Quercus* on steep, rocky W-slope, 4.1985, *A. M. Brand* 14403b (hb Brand).

The checklist (DIEDERICH & SÉRUSIAUX, 2000: 75) reports two species of *Bryoria* which require examination of relevant material: *B. chalybeiformis* (L.) Brodo & D. Hawksw. and *B. implexa* (Gyeln.) Brodo & D. Hawksw. Such material has now been carefully studied, incl. by TLC.

The material referred to *B. implexa* actually belongs to *B. capillaris*. The earlier report of that species from Luxembourg (DIEDERICH, 1986: 118, as *B. cf. capillaris*) refers to *Ramalina thrausta* (SÉRUSIAUX et al., 1999: 73-74).

*Bryoria capillaris* is a corticolous species, only found in **B** Ard.; it might be extinct in the area of study, but further exploration of suitable localities might demonstrate that it is still present. New for the study area.

### ***Bryoria chalybeiformis* (L.) Brodo & D. Hawksw.**

Belgium, Ard.: 'à terre parmi les rochers à Bastogne' (K7.16), 1852, *E. Coemans* (BR); Kreuz im Venn (N de Kùchelscheid, à proximité de la frontière allemande) (G8.16), partie humide et moussue de l'escarpement rocheux, 10.1960, *J. Lambinon* 60/2200b (LG).

The material previously referred to that species actually belongs to it, and its presence in the study area is thus confirmed.

This saxicolous species is believed to be extinct in the area of study.

### ***Buellia ocellata* (Flot.) Körb.**

Belgium, Fl.: Moerkerke centre, brick wall along churchyard (C2.14), on brick of wall, 4.2000, *P. van den Boom* 24281 (h).

France, Mar.: Somme, au NW de St-Valéry-sur-Somme, pointe du Hourdel, à l'E du phare, levée de galets (H22.44), sur des galets, 7.2001, *P. Diederich* 15371 (h); ibid., 4.2003, *E. Sérusiaux* s. n. (LG).

Netherlands: Noord-Brabant, Middelbeers, churchyard, on tombstone of acid rock, 7.1987, *P. van den Boom* 5672 (h). – Zeeland, Schouwen, Burgh-Haamstede, brick wall along church, on brick, 5.1988, *P. van den Boom* 6797 (h).

Within the study area, this species was known only from one locality in **F** Mosan, where it occurs on natural siliceous rocks. It was also mentioned from Belgium (DUVIGNEAUD & GILTAY, 1938: 39), but no relevant specimen has been seen. Its presence in Belgium is here confirmed. The species is widely distributed in the Netherlands, and two records close to the Belgian border are mentioned here. In France (Somme), we collected it twice on pebbles near the sea.

### ***Bunodophoron melanocarpum* (Sw.) Wedin**

Belgium, Ard.: vallée de la Helle, rocher à la Brandehaag (F8.55), 3.1967, *P. De Zuttere* 67/3468 (LG).

DIEDERICH & SÉRUSIAUX (2000: 77) say that the species report from **B** Ard. is based only on literature and that no specimen is available. A collection found in LG demonstrates that the species was indeed present in that district. It has not been seen recently and may now be extinct.

***Caloplaca granulosa*** (Müll. Arg.) Jatta

Belgium, Mosan: Comblain-la-Tour, 'Thier des Pourcès' (G7.33), on calcareous rock in a S exposed grassland on the right side of the Ourthe, 2.2002, *D. Ertz* (field observation); W of Vieuxville, ruins of château 'Fort de Logne' (G7.52), on S exposed old wall, 5.2001, *P. van den Boom* 26579 (h, LG); Modave, 'Thier de la Croix' (G6.36), crête rocheuse calcaire en voie de reboisement spontané, 3.2002, *D. Ertz* 787 (LG); Han-sur-Lesse, Belvédère (J6.24), dry and S-exposed limestone outcrop with *Xerobromion* communities, 12.2001, *D. Ertz* s. n. (LG); NE of Dailly, Gros Tienne du By (J4.47), semishaded calcareous ridge, 3.2002, *D. Ertz* s. n. (LG).

The species was formerly known from a single locality in northern France in the Mosan district (DIEDERICH & SÉRUSIAUX, 2000: 80). It is new for Belgium, where it might be more common than previously expected.

***Celothelium ischnobelum*** (Nyl.) Aguirre

Belgium, Ard.: Warche valley (G8.35), on *Corylus*, 5.1993, *J. Linnert* s. n. (hb Aptroot, LG).

This is a very much unexpected finding as *Celothelium ischnobelum* is a rare species in Europe and seems to be mostly restricted to atlantic and well-preserved areas. It once again demonstrates the high patrimonial value of the Warche valley and the urgent need for stronger conservation.

***Cladonia cyathomorpha*** W. Watson

Belgium, Ard.: WSW of Gedinne, rocher Campa (K5.37), schistose outcrops, 5.2000, *P. van den Boom* 24402 (h); Willerzie, Rochers de la Marotelle (K5.16), 11.1984, *E. Sérusiaux* 6692 (LG).

Luxembourg, Ard.: vallée de la Wark, à 2 km au N de Warken (au NW d'Ettelbruck) (K8.44), sur une paroi subverticale ombragée schisteuse en bord de route, 3.1997, *P. Diederich* 12462 (LG, h). – Lorr.: s. loc., before 1880, *J.-B. Reinhard* 678 (LUX); Moesdorf, im Walde beim Scheuerhof (L8.25), zwischen Moosen, 2.1892, *J. Feltgen* 421 (LUX); Klingelscheuerhof (L8.46), 6.1888, *J. Feltgen* 422 (LUX); Fischbach, vers Plankenhof, près des étangs (L8.36), dans un talus en bord de route, 11.1980, *P. Diederich* 3481 (h).

France, Ard.: Ardennes, SE of Revin, S of Anchamps, rocher des Dames, path along Meuse (K5.33), vertical shaded wet schistose rock, 5.2000, *P. van den Boom* 24429 (h).

Quite interestingly, a careful examination of *Cladonia* collections yielded a further, and rather easy to determine, species in the area of study.

**\**Cladoniicola staurospora*** Diederich, van den Boom & Aptroot

Belgium, Camp.: Kalmthout, Kalmthoutse Heide, close to the educational center of the nature reserve (B4.27), terricolous in heathland, on *Cladonia*, 11.2001, *P. Diederich* 14977 (h); ENE of Zonhoven, nature reserve 'De Teut' (D6.38), terricolous in heathland, on *C. chlorophaea*, 11.2001, *P. Diederich* 15024 (h).

Luxembourg, Lorr.: entre Dudelange et Kayl, Haard (M8.54), sur de la terre, sur *Cladonia pyxidata* ssp. *pocillum*, 7.2002, *P. Diederich* 15495 (h), *J. Miadlikowska & D. Ertz*.

This lichenicolous coelomycete has just been described from the Netherlands and northern France (DIEDERICH et al., 2002) and is here newly recorded from Belgium and Luxembourg.

***Clauzadea chondrodes*** (A. Massal.) Clauzade & Cl. Roux

Belgium, Mosan: Yvoir, rocher de Champalle (H5.27), calcareous outcrops, 11.1999 & 12.2001, *D. Ertz* s. n. & 423 (LG); Comblain-la-Tour, 'Thier des Pourcès' (G7.33), on calcareous rock in a S exposed grassland on the right side of the Ourthe, 2.2002, *D. Ertz* 504, 504bis (LG); W of Vieuxville, calcareous grassland of Logne (G7.52), on a calcareous rock in a S exposed grassland on the right side of the Limbrée, 2.2002, *D. Ertz* 508 (LG); SE of Huccorgne, rocher de la Marquise (F6.54), calcareous rock in a grassland at the top of an outcrop, on the left side of the Mehaigne, 3.2002, *D. Ertz* s. n. (LG); Han-sur-Lesse, Les Grignaux, W of the Ry d'Ave (J6.34), dry and SE-exposed limestone outcrop, 5.1997, *P. Diederich* 12753 (h).

DIEDERICH & SÉRUSIAUX (2000: 92) claim that this species report from Belgium by DUVIGNEAUD & GILTAY (1938) is based only on literature and that no specimen is available. The above mentioned specimens recently collected demonstrate that the species was probably overlooked or mistaken for other species of *Clauzadea*. Dr Barbara Meyer kindly checked the identity of two collections.

*Clauzadea cyclisca* (A. Massal.) V. Wirth, another taxon reported, but not accepted from the study area (DIEDERICH & SÉRUSIAUX, 2000: 92), is considered to be a regeneration form of *Clauzadea chondrodes* in the recent monograph of the genus by MEYER (2002). Most Belgian specimens partly or entirely represent such regeneration forms.

**\**Clypeococcum epicrassum*** (H. Oliv.) Nav.-Ros. & Cl. Roux

Belgium, Mosan: Dourbes, roche à Lomme (J5.41), calcareous rock in *Xerobromion* communities, 2.2002, *D. Ertz* 443 (LG); Comblain-la-Tour, 'Thier des Pourcès' (G7.33), on calcareous rock in a S exposed grassland on the right side of the Ourthe, 2.2002, *D. Ertz* 502 (LG).

This lichenicolous ascomycete was formerly known from a single locality in Belgium in the Lesse valley (VAN DEN BOOM et al., 1999). It has recently been collected in two other localities in the Mosan district on *Squamarina cartilaginea*.

\**Corticifraga peltigerae* (Nyl.) D. Hawksw. & R. Sant.

Luxembourg, Lorr.: entre Dudelange et Kayl, Haard (M8.54), sur de la terre, sur *Peltigera rufescens*, 7.2002, *P. Diederich* 15490 (h), *J. Miadlikowska & D. Ertz*; W of Kayl, Monument des mineurs (M8.53), on *P. rufescens*, 10.2002, *P. & B. van den Boom* 29875 (h).

Within the study area this species was known only from two old records (< 1880) from B Ard. (DIEDERICH & SÉRUSIAUX, 2000: 95). It is new for Luxembourg.

\**Dinemasporium strigosum* (Fr.) Sacc.

Luxembourg, Lorr.: entre Dudelange et Kayl, Haard (M8.54), sur de la terre, sur *Peltigera rufescens*, 7.2002, *P. Diederich* 15493 (h), *J. Miadlikowska & D. Ertz* 2529 (BR); Lorentzweiler, Kiischtebiërg (L8.45), dans une lande siliceuse, sur *Peltigera hymenina*, 11.1983, *P. Diederich* 3961 (h).

This is a common coelomycete, mostly, but not exclusively, growing on graminaceous substrates (SUTTON, 1980). The repeated discovery of the fungus on thalli of *Peltigera* (see also MIADLIKOWSKA & ALSTRUP, 1995) suggests that these populations might represent a distinct, yet undescribed, lichenicolous species. More and richer collections are needed to ascertain this hypothesis. Non-lichenicolous specimens are known from Belgium, e.g.: Belgium, Ard.: Malmedy (G8.43), on *Deschampsia flexuosa*, s. d., *M. A. Libert*, Reliquiae Libertianae n°23 (BR). We did not check the Belgian mycological literature to see if the species was already published from this country. In any case, the species must be added to the checklist of lichens and lichenicolous fungi (DIEDERICH & SÉRUSIAUX, 2000).

*Endocarpon adscendens* (Anzi) Müll.Arg.

Belgium, Mosan: 2 km N of Villers-sur-Lesse, in front of entrance to Château Royal (J6.13), S exposed mossy slope in ditch, 5.2001, *P. van den Boom* 26495 (h).

Both previously known specimens of this species from the study area, preserved in LG, were re-checked and found to represent *E. pusillum* Hedw. However, a recently collected Belgian specimen proved to be the genuine *E. adscendens* (identification confirmed by Dr O. Breuss). The presence of this species in the study area is thus established. The species was growing close to *Protopannaria pezizoides*.

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

Bull. Br. Mus. Nat. Hist. (Bot.) 9: 20 (1981); *Aposphaeria stenospora* Harm., Lich. Fr. 3: 308 (1907). Type: not indicated in the original account (type lost ? ANGUC-, fide HAWKSWORTH 1981).

Luxembourg, Lorr.: NW of Steinfort, carrières (L8.51), alt. 320 m, sur de la terre, sur *Cladonia furcata* subsp. *furcata*, 1.2000, *J. M. Cepeda* 46a (LG – neotype, here designated; LUX, UPS, hb Diederich – isoneotypes).

Belgium, Camp.: ENE of Zonhoven, nature reserve 'De Teut' (D6.38), terricolous in heathland, on basal squamules of *Cladonia chlorophaea*, 11.2001, *P. Diederich* 15021 (h).

Following HAWKSWORTH (1981), the type specimen of this species could not be located, and only a single additional specimen from Austria was known to that author. We here select the rather rich Luxembourg collection mentioned above as a neotype. We have furthermore seen material of this species from Austria: *F. Berger* 6296 (h, hb Diederich), and Lithuania: *J. Motiejūnaitė* 3733 (BILAS, hb Diederich). HAWKSWORTH (1986) reported it from Scotland.

In the neotype specimen, the fungus is abundant on the podetia of the host, but does not induce the formation of galls. The pycnidia are 40-80(-120)  $\mu\text{m}$  in diam., first immersed, later partly erumpent. The conidia are aseptate or more rarely 1-septate (c. 10% of the conidia observed), hyaline, multiguttulate, always narrower in the middle, 9-10  $\times$  3.5-4  $\mu\text{m}$ ; the conidial wall is c. 0.4  $\mu\text{m}$  thick and the basal scar 0.8-1.7  $\mu\text{m}$ . The Austrian specimen studied and described by HAWKSWORTH (1981) has 0(-1)-septate conidia of 7.5-11  $\times$  3-3.5  $\mu\text{m}$ , which are always broader in the middle. Whether these two specimens are conspecific, or that two different species are involved should only be discussed when more and richer specimens are available, allowing a better knowledge of the variability of the conidia. The Belgian specimen cited above has conidia of 7-9  $\times$  2.5-3  $\mu\text{m}$ , which are distinctly broader in the middle, and is thus similar to the Austrian specimen described by HAWKSWORTH.

Within the study area, the species was previously known from Belgium (Mosan and Lorr.) on *Cladonia coniocraea* and *C. rangiformis*.

#### +*Epigloea renitens* (Grummann) Döbbeler

Belgium, Mosan: Plombières, parc de l'ancien site minier (E8.52), *Armeria*-heathland, on piece of hardwood, 4.2001, *L. B. Sparrius* 4669 (h, hb Diederich).

Netherlands, Camp.: Budel-Schoot (NB), near former railway station, on rail track (grid-ref. 57-36-33), 10.1999, *L. B. Sparrius* 3521 (h).

This non-lichenized fungus was known from Austria and Germany, and possibly also from the British Isles (DÖBBELER, 1984), and is therefore new for the study area.

#### (\**Epilichen scabrosus* (Ach.) Clem.

Belgium, Mosan: Plombières, parc de l'ancien site minier (E8.52), *Armeria*-heathland on zinc-containing slate, on humus rich soil, on *Baeomyces rufus*, 4.2001, *L. Sparrius* 4679 (h).

The specimen is quite reduced, but clearly shows the yellowish lichenized thallus developing over the thallus of *Baeomyces rufus*. This thallus does not show any orange fluorescence in UV, probably due to its young age. All other characters are typical for *E. scabrosus*: yellowish, lichenicolous thallus, convex, immarginate ascomata, olivaceous brown epihymenium being K-, a dark olivaceous brown

hypothecium, strongly branched and anastomosing paraphyses, asci with a KI+ blue tholus, and brown, 1-septate ascospores of  $12-16 \times 5.5-7.5 \mu\text{m}$ . This species differs from the similar, but much rarer *E. glauconigellus* (Nyl.) Hafellner by the yellowish thallus and the immarginate ascomata.

This lichenicolous lichen had already been reported from Luxembourg on *Baeomyces rufus* by KOLTZ (1897: 253), but no relevant specimen has been examined. The presence of the species in the study area is herewith confirmed.

### ***Fellhanera viridisorediata*** Aptroot, Brand & Spier

Belgium, Mar.: NE of Brugge, W of Het Zwin, mixed wood (B2.33), abundant on fallen trunks of *Pinus pinaster*, 4.2000, *P. van den Boom* 24246 (h, fertile). – Ard.: Malmédy, vallée du Trô Maret (G8.23), fourrés de *Vaccinium* sur replats au-dessus de la rivière, 10.2000, *E. Sérusiaux* s. n. (LG, hb Diederich); Harre, bois de Harre, vallée de l’Ai l’Oiseau (H7.15), branchettes de *Picea* en bordure d’une prairie de fond de vallée, 10.2000, *E. Sérusiaux* s. n. (LG); Nadrin, lieu-dit ‘Les Ondes’ (J7.15), lisière très humide d’une plantation de *Picea*, sur branchettes de *Picea*, 4.2000, *E. Sérusiaux* s. n. (LG); Bure, vallée de la Lomme, au lieu-dit ‘Grand Han’ (J6.45), branchettes de *Picea* en lisière d’une plantation, 1.2001, *E. Sérusiaux* s. n. (LG); Bohan, boucle de la Semois au NE du lieu-dit ‘Le Châtelet’ (K5.57), lisière fraîche d’une plantation de *Picea*, sur branchettes de *Picea*, 7.2001, *E. Sérusiaux* s. n. (LG); S of Beauraing, Gedine, S of road to Rienne, along ‘Etang Boiron’ (K5.17), on twigs of *Picea*, 5.2000, *P. van den Boom* 24357 (h, fertile). – Lorr.: 6.5 km NE of the centre of Virton, 3 km NNE of Ethe, 1.5 km N of the Etang de Laclaireau, forest close to stream (M7.24), on *Picea* twigs by a stream, 9.2002, *P. Diederich* 15532 (h) & *D. Ertz* 2647 (BR).

This species was known from two Belgian collections only and was considered to be probably overlooked (DIEDERICH & SÉRUSIAUX, 2000: 101). Careful search for the species demonstrates that it must be quite common, being most commonly found on *Picea* twigs at the edges of shaded and humid plantations (where it is frequently found with *Fellhanera bouteillei* and *Fellhaneropsis myrtillicola*), and once at the base of *Vaccinium* shrubs together with *Vulpicida pinastri* (syn.: *Cetraria pinastri*).

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

Belgium, Mar.: au NW de Veurne, vers Sint-Idesbald, Ten Bogaarde Hoeve (C0.57), vieux murs autour de la ferme près du parking, sur briques et mortier, sur *Caloplaca citrina*, 5.2002, *P. Diederich* 15242 (h).

Luxembourg, Lorr: Strassen, Xaviershaff (M8.14), sur un mur vertical d’une vieille ferme, sur *C. citrina*, 7.1998, *P. Diederich* 13728 (h).

Netherlands: Limburg, Maastricht, stadsmuur t. h. v. de Nieuwenhofstraat, vestingmuur van tufkrijt (km blok 61-28-32, 176.3/317.2), on *C. citrina*, 5.1998, *P. Diederich* 13640 (h).

Germany: Bayern, Reg.-Bez. Mittelfranken, Landkreis Neustadt a. d. Aisch, Schloß Hoheneck östlich Ipsheim, am Weg nördlich Bühlberg, 430 m, auf *C. flavovirescens*, 1.1977, *N. Höhne* (HBG).

Austria: Niederösterreich, Lunz am See, Scheiblingstein, 1500-1600 m, auf Kalk, auf *C. alociza*, 8.1995, *R. Türk* 20291 (h, hb Diederich).

This species has just been described from a single specimen from the USA on *Caloplaca trachyphylla* (HAWKSWORTH & COLE, 2002), and is here newly recorded from Europe, where it could be a common parasite in the hymenium of *Caloplaca* species.

**\**Kalaallia reactiva*** Alstrup & D. Hawksw.

Belgium, Ard.: Bovigny, vallée de l'Eau de Ronce (affluent rive gauche de la Salm) (H8.41), sur pierres immergées ou immédiatement au-dessus de la surface de l'eau, sur *Ionospis lacustris*, 6.1997, *E. Sérusiaux* (LG).

This lichenicolous ascomycete was described from Greenland (ALSTRUP & HAWKSWORTH, 1990) and was recently reported from the British Isles (ORANGE, 2002). It is new for the study area.

**\**Lasiosphaeriopsis salisburyi*** D. Hawksw. & Sivanesan

Luxembourg, Lorr.: Lamadelaine, Fusboesch (M8.31), sur *Peltigera didactyla*, 7.2002, *D. Ertz* 2554, *P. Diederich* & *J. Miadlikowska* (BR, specimen with *Neolamya peltigerae*).

France, Brab.: Pas-de-Calais, à l'W de Watten, Blockhaus d'Eperlecques (E21.27), sur un gros bloc de béton exposé, sur *P. rufescens*, 5.2002, *P. Diederich* 15149 (h).

Netherlands: Noord-Holland, Heemskerk dune area near Berenweide, on path, on calcareous sandy soil (coord. 103.5/503.5), on *P. rufescens*, 6.1990, *A. Aptroot* 26821 (h).

This lichenicolous ascomycete was described from the British Isles, and was subsequently collected in the Faroes and Spain, always on *Peltigera* species (MARTÍNEZ & HAFELLNER, 1998). Its recent inclusion in the Dutch checklist (APTROOT et al., 1999) is based on the specimen given above. The species is new for the study area.

***Lecanactis dilleniana*** (Ach.) Körb.

Belgium, Ard.: Malmedy, along Warche river (G8.35), boulder in scree, 5.2003, *A. Aptroot* 57899a (h, hb Diederich).

A remarkable discovery of a rare species, known from Central Europe, the British Isles and Scandinavia. New for the study area.

***Lecanora compallens*** van Herk & Aptroot

Belgium, Ard.: Redu, along road to the river Lesse (K6.14), on *Tilia* along the road, 5.2000, *P. van den Boom* 24483 (h, LG).

Luxembourg, Lorr.: Schouweiler, vers Bascharage, à 1,2 km après la sortie du village, le long de la route principale (M8.22), sur *Tilia*, 9.1999, *P. Diederich* 13854 (h); au S de

Bertrange, route entre Gréivelsershaff et Gréivelsers-Barrière (M8.24), sur *Tilia*, 9.2000, *P. Diederich* 14397 (h).

*Lecanora compallens* is a further species that should turn out to be quite common; as it is always sterile, it is easily overlooked. It was formerly known from few localities in **B** Mosan and **L** Lorr. (DIEDERICH & SÉRUSIAUX, 2000: 109).

### *Lecanora crenulata* Hook.

Selected specimens examined: Belgium, Mar.: au NW de Veurne, vers Sint-Idesbald, Ten Bogaarde Hoeve, vieux murs autour de la ferme près du parking (C0.57), 5.2002, *P. Diederich* 15235 (h); au SW de Veurne, à l'W de Bulskamp, St Gustaafmolen (D0.27), 5.2002, *P. Diederich* 15251 (h). – Brab.: Zwalm, Roborst, church (E3.23), 8.1999, *P. Diederich* 13929 (h) & *M. Hoffmann* (with *L. dispersella*). – Mosan: Han-sur-Lesse, Les Grignaux, W of the Ry d'Ave (J6.34), 5.1997, *P. Diederich* 12752 (h).

Luxembourg, Lorr.: Lasauvage, dans le village (M7.48), sur un rocher en tuf calcaire, 9.1999, *P. Diederich* 13882 (h).

France, Picard: Somme, à 6 km au NW d'Abbeville, Port-le-Grand, grande ferme fortifiée au centre du village (J22.17), 7.2001, *P. Diederich* 15400 (h). – Lorr.: Meuse, au SE de Montmédy, Marville, cimetière de St Hilaire (N7.11), 11.2000, *P. Diederich* 14465 (h).

DIEDERICH & SÉRUSIAUX (2000: 109) explained that the name *Lecanora crenulata* is used for two very distinct species. Although we did not examine the type specimen of *L. crenulata*, we considered that the name should be used for the species with the larger apothecia. No name appeared to be available for the species with smaller apothecia, which we provisionally called '*L. crenulata* auct.'. In some recent papers (e. g., LLIMONA & HLADUN, 2001; NAVARRO-ROSINÉS, 1992: 193-195; NIMIS & POELT, 1987), the species with smaller apothecia is called *Lecanora dispersella* auct. We propose to follow this choice until a modern revision of the group is available.

### *Lecanora dispersella* auct., non Steiner

Syn.: *Lecanora crenulata* auct., non Hook.

Selected specimens examined: Belgium, Brab.: Geraardsbergen, Chappel Oudenberg (E3.45), on the wall of a church (calcareous stones, mortar, etc.), 8.1999, *Diederich* 13913 (h) & *M. Hoffmann*; Zwalm, Roborst, church (E3.23), on the wall of a church (mortar), 8.1999, *P. Diederich* 13929 (h) & *M. Hoffmann* (with *L. crenulata*).

Luxembourg, Lorr.: NE Kehlen, cimetière de Schéimerech (L8.54), sur un vieux mur, et sur de vieilles tombes, 9.1997, *P. Diederich* 12946 (h); Mamer, Tossebiérg, près des thermes romains (M8.14), sur un mur, 11.1997, *P. Diederich* 13448 (h); Larochette, près de la ferme Weydert (L8.27), sur *Sorbus domestica*, 5.1998, *Diederich* 13623 (h).

France, Mar.: Pas-de-Calais, Ambleteuse, Ancien Fort Mahon, face nord, murs près de l'entrée du Fort (E22.35), sur un mur, 8.2000, *P. Diederich* 14394 & *J. Signoret* (h).



Netherlands: Limburg, Bemelen, Bemelerberg (km blok 62-21-23, coord. 182.1/318.1), kalkgrasland met tufkrijtrotsen, 5.1998, *P. Diederich* 13691 (h); Cadier en Keer, Schiepersberg, Julianagroeven (km blok 62-21-53, coord. 182.7/315.8), sur une roche calcaire dans une carrière, 5.1998, *P. Diederich* 13647 (h).

U.S.A.: Nevada, W of Las Vegas, Red Rock Canyon National Conservation Area, sandstone quarry (36°10' N, 115°27' W), alt. 1290 m, on non-calcareous sandstone rocks in an old quarry, 12.1997, *P. Diederich* 14156 (h).

See comments under *Lecanora crenulata*.

### ***Lecanora leuckertiana* Zedda**

Belgium, Mosan: SE of Gendron, along the river Lesse (H6.51), on W exposed steep calcareous rock, 3.1995, *P. van den Boom* 16706 (h, LG); Villers-sur-Lesse, S of Château Royal (J6.13), calcareous outcrops, on vertical face, 5.2001, *P. van den Boom* 26580 (h, LG). – Ard.: 2.5 km N of Smuid, 200 m W of rocher de Marie de Gobaille (J6.56), vertical, shaded, schistose rock, 5.2000, *P. van den Boom* 24519 (h, LG).

This recently described species (ZEDDA, 2000) is sterile and easily identified by its unusual combination of common compounds (usnic acid and zeorin). Both specimens from the Mosan district cited above have been checked by TLC and definitely belong to that species. *Lecanora leuckertiana* is thus new for the study area.

### ***Lecanora piniperda* Körb.**

Belgium, Ard.: Gedinne, Croix Scaille (K5.26), 5.2000, *P. van den Boom* 24408 (h); SW of Eupen, Hertogenwald, path from Brackvenn to Nahtsief (F8.56), on dead standing decorticated trunk, 9.2001, *P. & B. van den Boom* 27983 (h). – Lorr.: SE of Florenville, forêt d'Orval, along stream 'Frère Simon' (L6.58), on wood of fence post, 4.1998, *P. van den Boom* 20053 (h).

This species was known from L Ard. et Lorr. (DIEDERICH & SÉRUSIAUX, 2000: 110) and is here newly recorded for Belgium.

### ***Lecanora zosteræ* (Ach.) Nyl.**

France, Mar.: Pas-de-Calais, Cran aux Oeufs, top of cliff near village (E22.14), on stems and branches of *Lycium barbarum*, 6.2001, *P. Diederich* 14878 (LG, h).

Netherlands: Frise, Schiermonnikoog, près du port, sur un poteau en bois dans la mer, 4.1984, *P. Diederich* 5364 (h).

This species was recently recognized in the British Isles, where it mainly develops on decaying rosettes and leaves of *Armeria maritima*, and more rarely on decaying leaves of other plants, always over rocks and soil close to the sea (LAUNDON, 2003). In North America it is common on lignum and dead vegetation (BRODO et al., 2001). It is new for the study area and for the Netherlands.

***Lecidea siderolithica*** Müll. Arg.

Belgium, Ard.: Stavelot, vallée de l'Amblève, rocher de Challe (G8.52), paroi siliceuse fortement enrichie en métaux lourds, 8.1997, *E. Sérusiaux* s. n. (LG); *ibid.*, 3.1998, *M. Minet, E. Sérusiaux & P. van den Boom* (LG, hb van den Boom).

France, Ard.: Ardennes, bois de Fumay, le long de la route entre Fumay et Revin, paroi schisteuse subverticale fortement ferrophile, 6.1967, *J. Lambinon* 67/345 (LG); *ibid.*, 7.1978 (excursion de l'Association Française de Lichénologie 1978), *R. Iserentant & E. Sérusiaux* (LG, hb Iserentant).

These collections have been examined by the most distinguished specialist of the genus *Lecidea*, Dr H. Hertel, and were found to be close to *Lecidea siderolithica* Müll. Arg. Several anatomical details however bring them somewhat apart from it, but no alternative name could be found. *L. siderolithica* belongs to the *Lecidea fuscoatra* aggr. and needs further investigations; typical populations are known from the British Isles, France and Germany (HERTEL, 1995: 171).

The rock substrate at both localities is strongly enriched with iron and typical ferrophilous lichen communities develop: at the Rocher de Challe in Stavelot, *Acarospora sinopica* is the dominant species while yellow *Lecanora* are lacking; at the Fumay locality, *Lecanora epanora* is very abundant, together with *Acarospora sinopica*, *Lecanora handelii* and *L. subaurea*. The species is new for the area covered by the checklist.

***Leiorreuma lyellii*** (Sm.) Staiger

Syn.: *Phaeographis lyellii* (Sm.) Zahlbr.

France, Pic.: Somme, au N d'Abbeville, forêt domaniale de Crécy, lots 35-37 (H21.41), alt. 75 m, sur *Carpinus* dans une forêt, 7.2001, *P. Diederich* 15089 (h).

See comments under *Phaeographis dendritica*. New for the study area.

***Leptogium byssinum*** (Hoffm.) Nyl.

Belgium, Mosan: Oret (près de Mettet), hameau de Coroy (H5.32), carrière de sable, 2.2003, *J.-P. Duvivier* (h) & *D. Ertz* 3040 (BR, LG, hb Diederich).

This species was known from a single Belgian locality in the Mar. district (DIEDERICH & SÉRUSIAUX, 2000: 117), and is here reported as new for the Mosan district. It covers a surface of 1-2 m<sup>2</sup> at the edge of a quarry, where it grows in open grass vegetation over clay.

***Leptogium teretiusculum*** (Wallr.) Arnold

Belgium, Ard.: Villers-Sainte-Gertrude, au N du village, vallée du ruisseau de Pont-le-Prêtre (H7.13), sur *Juglans*, dans un pâturage, 4.2001, *E. Sérusiaux* s. n. (LG).

This species was known from five Belgian and two Luxembourg saxicolous collections (SÉRUSIAUX et al., 1999). The new record is most interesting, as it is the first corticolous population in the study area.

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

Luxembourg, Lorr.: entre Dudelange et Kayl, Haard (M8.54), sur *Peltigera* gr. *rufescens*, 7.2002, D. Ertz 2497 (BR), P. Diederich & J. Miadlikowska.

Within the study area, this species was known only from **B** Ard. (type locality), where it was collected in 1880 (DIEDERICH & SÉRUSIAUX, 2000). It is new for Luxembourg.

***Lichina confinis*** (Müller) Agardh

France, Mar.: Pas-de-Calais, near cap Gris-Nez (E22.14), on sandstone rocks with large populations of *Verrucaria maura*, 5.2002, P. Diederich 15140 (h, LG).

This species was collected several times on a single rock near cap Gris-Nez (E22.15) between 1951 and 1994, and it seems to have disappeared since (SPARRIUS et al., 2002). We report here the discovery of a second, very healthy population, covering rocks over a surface of more than 20 × 5 m<sup>2</sup>. As the species is extremely rare in our region, we do not give further details on the exact location of the population, to avoid overcollecting.

***Lobarina scrobiculata*** (Scop.) Cromb.

Belgium, Ard.: near Herbeumont, vallée de l'Antrogne (L6.25), tronc d'un gros *Acer*, 1.2003, D. Ertz 2907 (BR).

This species was considered as possibly extinct in Belgium, as it has not been observed since 1991 on a tree that was eventually removed (DIEDERICH & SÉRUSIAUX, 2000: 121). It has been rediscovered in Belgium on a single tree of 90 cm in diam. in an old forest near Herbeumont. This species requires a special conservation program.

**(\*)*Milospium graphideorum*** (Nyl.) D. Hawksw.

Belgium, Mosan: Han-sur-Lesse, Belvédère (J6.24), sheltered limestone outcrop, 12.2001, D. Ertz s. n. (LG); SE of Nismes, 'Roche Trouée' (J5.41), sheltered limestone outcrop, 3.2002, D. Ertz s. n. (LG); Treignes, vallée du Ruisseau des Fonds de Ri, lieu-dit 'Roche aux chevaux' (J5.33), affleurement de calcaire compact du Givetien en bord de rivière, 5.1999, D. Ertz s. n. (LG), E. Sérusiaux s. n. (LG) & P. Diederich 14219 (h).

This species was included in the recent Checklist (DIEDERICH & SÉRUSIAUX, 2000: 125), based on one of the above mentioned collections, but no specimen has been published until now. The species is relatively rare in the Mosan district, and grows exclusively in association with *Dirina stenhammarii* as a lichenicolous fungus: occasionally it becomes independent and sometimes develops a distinct blackish prothallus separating it from its initial host. Corticolous specimens of the same species known from other countries are usually non-lichenicolous independent lichens (APTROOT & SIPMAN, 2001; also specimens in hb Diederich examined).

**\**Neolamya peltigerae*** (Mont.) Theiss. & Syd.

Luxembourg, Lorr.: Lamadelaine, Fusboesch (M8.31), sur *Peltigera didactyla*, 7.2002, *P. Diederich* 15479 (h), *J. Miadlikowska & D. Ertz* 2535 (BR); entre Dudelage et Kayl, Haard (M8.54), sur *Peltigera didactyla*, 7.2002, *P. Diederich* 15487 (h), *J. Miadlikowska & D. Ertz*.

A rare, but widespread peltigericolous ascomycete, here reported as new for the study area.

***Opegrapha gyrocarpa*** Flot.

Belgium, Ard.: Sainte-Cécile, vallée de la Semois, entre le lieu-dit Relogne et les rochers face à la roche du Chat (L6.36), parties ombragées de parois siliceuses, partiellement en sous-bois, 7.1997, *E. Sérusiaux* s. n. (LG) (TLC: gyrophoric et schizopeltic ac.); Nisramont, confluence des Deux-Ourthes, rive gauche, au N du lieu-dit 'Steignon Chaineu' (J7.25), barre rocheuse en bord de l'Ourthe et en sous-bois, 4.2000, *E. Sérusiaux* s. n. (LG) (TLC: schizopeltic ac.).

*Opegrapha gyrocarpa* is easily identified by its yellowish orange color and the production of schizopeltic acid, sometimes produced together with gyrophoric acid. Both collections are sterile and were checked by TLC. The species is new for the area of study.

**\**Paranectria oropensis*** (Ces.) D. Hawksw. & Piroz.

Luxembourg, Lorr.: Lamadelaine, Fusboesch (M8.31), on *Fagus*, on *Lepraria lobificans*, 7.2002, *D. Ertz* 2522 (BR), *P. Diederich* 15484 (h) & *J. Miadlikowska*.

This species was tentatively reported from Luxembourg (SÉRUSIAUX et al., 1999) based on an immature specimen overgrowing *Buellia punctata* and *Xanthoria candelaria*. The report of a fully mature collection allows us to ascertain the occurrence of the species in the study area.

***Parmelia ernstiae*** Feuerer & A. Thell

Belgium, Mosan: Namur, rochers (schistes houillers) au pied de la citadelle, entre le pont de l'Evêché et le pont de Sambre (G5.36), 6.1961, *J. Lambinon* 61/635 (LG); Macon, route de Chimay (J4.53), sur *Ulmus*, 8.1962, *J. Duvigneaud* 62/521 (LG); Baileux, bois de baileux, au-dessus du "Chemin des Liégeois" (J4.56), sur *Quercus* en futaie, 5.1964, *J. Lambinon* 64/448 (LG); Roly, bord de l'étang du Fraity (J5.21), saussaie marécageuse, sur *Salix* mort, 12.1972, *E. Sérusiaux* 29 (LG); Loverval, route de Philippeville (G4.57), à l'entrée du bois, sur *Ulmus*, 11.1959, *J. Lambinon* 59/622 (LG); Dinant, Fonds de Leffe (H5.38), tronc de *Fraxinus* en bord de ruisseau, 9.1961, *J. Lambinon* 61/2205 (LG); Biron, vergers au bord de la route Barvaux-Hotton (H7.21), sur arbres fruitiers, 1.1960, *J. Lambinon* 60/21 (LG); Froidchapelle, bois de Hermoy (J4.25), futaie claire, tronc de *Quercus*, 2.1964, *J. Lambinon* 64/68 (LG); Rance, forêt de Rance, aulnaie à sphaignes en bordure de la route de Beaumont (J4.24), sur *Alnus*, 9.1964, *J. Lambinon* 64/1569 (LG); Thirimont, verger en bord de la route Beaumont-Mons (H4.43), vieux tronc de cerisier, 9.1964, *J. Lambinon* 64/1518 (LG); Theux, route de Liège-Spa, à la limite de Louveigné (G7.17), tronc de *Fraxinus*,

8.1962, *J. Lambinon* 32/1470 (LG). – Ard.: Mormont, pierrier de la limite communale de Chêne-al-Pierre (Pierry del Fagne Houbier) (H7.23), sur bloc rocheux, 9.1961, *J. Lambinon* 61/2159 (LG); Erezée, vallée de l’Aisne (H7.33), sur *Fraxinus*, 1.1960, *J. Lambinon* 60/30 (LG); Herbeumont, Rocher du Chat (L6.26), sur *Betula*, 8.1959, *J. Divigneaud* s. n. (LG); *ibid.*, sur *Quercus*, *J. Divigneaud* s. n. (LG); Assenois-lez-Neufchâteau, propriété du Comte d’Ansembourg (L7.11), sur tronc d’*Ulmus*, 6.1960, *J. Lambinon* 60/1064 (LG); entre Anlier et Habay-la-Neuve (L7.35), tronc de *Fraxinus* en bord de route, 7.1964, *J. Lambinon* 64/1013 (LG); Grimbiemont (comm. de Roy) (J6.18), vieux tronc de pommier (haie en bordure de prairie), 5.1964, *J. Lambinon* 64/336 (LG); Noville, Wicourt, le long de la route Bastogne-Houffalize (J7.46), tronc de *Fraxinus*, 5.1964, *J. Lambinon* 64/432 (LG); entre Bütgenbach et Waismes, au bord de la route de Malmedy (G8.46), tronc de *Sorbus aucuparia*, 11.1962, *J. Lambinon* 62/2078 (LG); Gembes, banc rocheux (schiste dur) au bord du ruisseau des Rives, près de la route de Porcheresse (K6.12), 7.1962, *J. Lambinon* 62/783 (LG); route de Morhet (K7.23), sur *Fraxinus*, 4.1960, *J. Ramaut* s. n. (LG); Marbay, route Neufchâteau-Arlon, près du carrefour de la route Marbay-Bernimont (L7.12), sur *Picea* en bord de route, 3.1960, *J. Ramaut* s. n. (LG); St-Hubert, route de Champlon, près du pénitencier (J6.57), sur *Acer pseudoplatanus*, 5.1964, *J. Lambinon* 64/653 (LG); Naomé, “Mon Idée” (route de Bouillon, limite de Baillamont) (K6.32), tronc de *Picea*, 9.1964, *J. Lambinon* 64/1581 (LG). – Lorr.: Tintigny, bord de la route de Bellefontaine (L7.52), tronc de *Fraxinus*, 9.1962, *J. Lambinon* 62/1824; Sainte-Marie-sur-Semois, bord de chemin près du calvaire (L7.53), tronc de *Populus*, 9.1962, *J. Lambinon* 62/1769 (LG); SE of Etalle, S of Sivry, bois d’Etalle (L7.54), on *Quercus*, *P. & B. van den Boom* 30643 (h, hb Diederich).

Luxembourg, Ard.: Asselborn, entre Emeschbaach et Moulin d’Asselborn (J8.32), sur un rocher en schistes, 8.1980, *P. Diederich* 2751 (h). – Lorr.: NNW of Contern, Weierboesch (M8.27), on *Quercus*, 9.1987, *P. Diederich* 8621 (h, LD, LG); Rodange, Prënzebiërg (M8.31), on *Betula*, abandoned old quarry with *Betula* and *Salix* trees, 5.2003, *P. Diederich* 15601 (h); SW of Larochette, Meysembourg (L8.26), on roadside *Aesculus*, 5.2003, *P. & B. van den Boom* s.n. (h); Larochette, vallon du Manzebaach (L8.27), tronc de *Fagus* abattu, 9.1966, *J. Lambinon* 66/1538 (LG); Berdorf, sur la crête du Perekop (escarpement de grès de Luxembourg) (L9.12), 6.1961, *J. Lambinon* 61/536 (LG); N Mamer, près du Fonkebiirchen (L8.53), sur *Quercus*, 7.1980, *P. Diederich* 2266 (h); SW Kopstal, Neimaxmillen, près d’un ancien étang (L8.54), sur *Tilia*, 7.1980, *P. Diederich* 2253 (h); S Rambrouch (L7.18), sur *Fraxinus*, 9.1979, *P. Diederich* 1911 (h); E Vichten, route vers Bissen (L8.13), sur *Tilia*, 9.1979, *P. Diederich* 1817 (h); E Heisdorf (L8.56), dans un verger, 7.1979, *P. Diederich* 1497 (h); N Ernster (L8.47), sur *Malus*, 7.1979, *P. Diederich* 1390 (h); S Eisenborn, près des étangs (L8.46), sur un arbre, 7.1979, *P. Diederich* 1506 (h); S Capellen, près d’un étang dans forêt (M8.13), sur *Quercus*, 7.1980, *P. Diederich* 2246 (h); Luxembourg, parc W Radio (M8.15), sur *Platanus*, 11.1966, *L. Reichling* (LUX); Vichten (L8.13), vers 1890, *J. Feltgen* 172 (LUX).

France, Mosan: Ardennes, rochers de Chooz, au-dessus de Petit-Chooz (J5.35), rochers schisto-gréseux ± calcaireux d’un petit abrupt sous la crête, 5.1970, *J. Lambinon* 70/449 (LG). – Moselle, 12 km E of Bitche, Grosser Hundskopf [réserve naturelle des rochers et tourbières du pays de Bitche: rock 20], on *Quercus*, 7.2001, *P. Diederich* 14829 (h) & *J. Signoret*. – Vosges, E de La Bresse, chemin allant du col de Brammont vers le col de l’Etang, 950-1100 m, futaie à *Abies* et *Acer*, 6.1987, *E. Sérusiaux* s. n. (LG). – Finistère, forêt de Cranou, près de la route de St Conval, sur branche de *Quercus*, 5.1960, *R. Schumacker* s. n. & *J. Lambinon* 60/678 (LG). – Pyrénées-Atlantiques, Iraty, forêt au

NE des “Châteaux d’Iraty”, 1200-1300 m, futaie de hêtres, 7.1989, *P. W. James, F. Rose, J. Vivant & E. Sérusiaux* s. n. (LG).

Germany: Bez. Nordhessen, grossflächig an senkrechten, teilschattigen, feuchtgetönten grobkörnigen Basaltuffwänden im Parmelietum omphalodis, 500 m, Felsabbrüche zwischen Dörnberg und Helfensteinen im Naturpark Habichtswald westlich Kessel, 4.1972, G. Follmann *Lichenes Exsiccati selecti a Museo Historiae Naturalis Casselensis editi n° 308* (LG, hb Diederich).

Greece: Thessaly, Litochoron, Olympus, Stavros, 1000 m, on *Pinus*, 8.1984, *P. van den Boom* 2083 (h); *ibid.*, Mt Olympus, 2100 m, on *Pinus*, 7.1984, *P. van den Boom* 1944; chaîne du Pinde, route de Kalambaka à Ioannina, 28 km avant Metsovon, 15 km avant le col, 1500 m, bois de pin, sur tronc, 8.1962, *V. Demoulin* (LG).

Slovenia: Alpes Juliennes, Bohinj, sur *Larix* en bord de route, 6.1960, *J. L. Ramaut* s. n. (LG).

Algeria: Mt Babor, sur cèdre, 9.1981, *J. P. Ledant* s. n. (LG).

Spain, Canary Isles: Tenerife, route La Esperanza-Las Cañadas, La Crucita, crête venteuse, 1970 m, blocs de lave, 4.1972, *J. R. De Sloover* 72L108 (LG); Tenerife, route Aquamansa-El Portillo, barranco recoupé par la route, 1680 m, sur sol meuble entre les rochers, 3.1972, *J. R. De Sloover* 72L16 (LG).

This species was recently described from Germany (FEUERER & THELL, 2002) and has subsequently also been discovered in southern Sweden (THELL, 2003). It is very similar to *Parmelia saxatilis*, but mainly differs in the strongly pruinose upper thallus surface (sometimes epruinose near the margin) and isidia. From the original description, it seems obvious that *Parmelia saxatilis* var. *retiruga* f. *pruinosa* Lynge [in *Bergens Museums Aarbog* 9: 91, 1910] represents the same taxon. There might be a soresiate counter-part in *P. sulcata* as Harmand (*Lich. de France* 4: 567, 1909) has described var. *pruinosa* Harm. within that species with the following description: “Thalle blanchâtre ou blanc-grisâtre recouvert d’une pruine farineuse ...”. Indeed, the collections of *P. sulcata* in LG and hb Diederich hold several specimens which match that description. It seems clear to us that detailed DNA analysis of such sibling taxa should provide reliable data to assess their taxonomic value.

We report *P. ernstiae* here as new for the study area, where it appears to be widespread although much rarer than *P. saxatilis*, for France, Greece, Slovenia, Algeria and the Canary Isles.

### ***Peltigera extenuata* (Vain.) Lojka**

Belgium, Lorr.: Buzenol, bord de la voie ferrée près de la gare (M7.14), 8.1965, *J. Lambinon* 65/671 (LG).

Luxembourg, Lorr.: s. loc., vers 1840, *F.-A. Tinant* 80 (LUX); Pétange, Prënzeberg (M8.31), 9.1966, *J. Lambinon* 67/1360 (LG); Mensdorf, Widdeberg, carrière (L9.51), sur un rocher en grès, 8.1982, *P. Diederich* 3606 (h); entre Dudelange et Kayl, Haard (M8.54), sur de la terre, 7.2002, *J. Miadlikowska, P. Diederich* 15486 (h) & *D. Ertz* 2512 (BR).

This taxon was for a long time included in the species concept of *Peltigera didactyla*. It is distinguished from the latter by the abundant, strongly branched rhizinae. The young soralia of *P. extenuata* react C<sup>+</sup> red and those of *P. didactyla* C<sup>-</sup> and thus provide a further diagnostic feature. New for the study area.

The collection from Dudelange is parasitized by the lichenicolous ascomycete *Corticifraga fuckelii* (Rehm) D. Hawksw. & R. Sant.

### ***Peltigera monticola*** Vitik.

Luxembourg, Lorr.: Lamadelaine, Fusboesch (M8.31), over soil, 7.2002, *J. Miadlikowska* 07.27.02/8, *P. Diederich* & *D. Ertz* (DUKE, hb Diederich).

This species was described by VITIKAINEN (1994) for a small number of specimens from central and south-eastern Europe (Austria, Greece, Italy, Montenegro, Romania, Sardinia, Slovenia and Switzerland). It was later also recorded from Sweden (BERGSTEN, 1999) and from the Iberian Peninsula (MARTÍNEZ et al., 1997). It is very similar to *P. rufescens* and *P. ponojensis*, and VITIKAINEN (1994) noted that it is in need of further observations. *Peltigera monticola* belongs to the *canina*-aggr. and thus has a tomentose upper surface, at least on marginal lobes. It can be distinguished by its upper surface indeed hardly tomentose, but also slightly and distinctly pruinose at lobes margins, by the development of lobules, and by short, simple, slender, brownish rhizines. It is close to *P. ponojensis*, another poorly understood species in the area of study.

Two typical specimens of this species were collected, together with abundant *P. rufescens*, *P. didactyla*, and more rarely *P. ponojensis*, near Lamadelaine, in a terricolous vegetation dominated by *Peltigera* species. ITS-sequences of both specimens, and also of several *P. ponojensis* specimens from the same locality confirmed the identifications (*J. Miadlikowska*, pers. comm.). The species is new for the study area.

### **\**Phacopsis fusca*** (Triebe & Rambold) Diederich

Syn.: *Phacopsis oxyspora* (Tul.) Triebe & Rambold var. *fusca* Triebe & Rambold

Belgium, Ard.: Salmchâteau (H8.31), on *Neofuscelia pulla*, 6.1890, *J. Feltgen* 171a (LUX); Houffalize, rochers gréseux au bord de la route de La Roche, à 2 km de Houffalize (J7.27), sur *Xanthoparmelia conspersa*, 11.1961, *J. Lambinon* 61/2408 (LG).

Luxembourg, Ard.: Hoscheid, Molberlay (K8.24), on *Xanthoparmelia somloensis*, 4.2000, *P. Diederich* 14127 (h).

The specimen from Houffalize was published by SÉRUSIAUX et al. (1999: 64) as *Phacopsis oxyspora*. Re-examination of the material and the discovery of two additional specimens lead to *P. fusca*, a taxon mainly growing on *Xanthoparmelia* species (TRIEBE et al., 1995). *P. oxyspora* s. str. does not seem to occur in the study area and has to be deleted from the checklist.

***Phaeographis dendritica*** (Ach.) Müll. Arg.

France, Pic.: Somme, au N d'Abbeville, forêt domaniale de Crécy, lots 35-37 (H21.41), alt. 75 m, sur *Carpinus* dans une forêt, 7.2001, *P. Diederich* 15087 (h).

Within the study area, this extremely rare species was known only from one 19<sup>th</sup> century record from **B** Brab. (DIEDERICH & SÉRUSIAUX, 2000: 139), and it was considered to be extinct. It was discovered in the forêt domaniale de Crécy together with *P. inusta* on *Carpinus*, *P. smithii* on *Quercus* and *Leiorreuma lyellii* (syn.: *P. lyellii*) on *Carpinus*, demonstrating the very high patrimonial value of this remarkable forest.

***Phaeographis smithii*** (Leight.) B. de Lesd.

France, Pic.: Somme, au N d'Abbeville, forêt domaniale de Crécy, lots 35-37 (H21.41), alt. 75 m, sur *Quercus* dans une forêt, 7.2001, *P. Diederich* 15094 (h).

This species was known from one 19<sup>th</sup> century record from **B** Fl., one 1910 record from **F** Brab. (DIEDERICH & SÉRUSIAUX, 2000: 139), and two 1954 records from **F** Boul. (SPARRIUS et al., 2002), and it was considered to be extinct in our study area.

***Physcia leptalea*** (Ach.) DC., nom. cons.

Syn.: *P. semipinnata* (J. F. Gmel.) Moberg

Luxembourg, Lorr.: NE of Differdange, near Rodange, reserve Prënzeberg (M8.31), on *Salix*, abandoned old quarry with *Betula* and *Salix* trees, 10.2002, *P. & B. van den Boom* 29822 (h, hb Diederich).

France, Mar.: Pas-de-Calais, au N de Dannes, dunes, un peu au N du parking permettant l'accès au Mont St-Frioux (F22.35), sur *Salix* en bord de chemin dans une petite mare, 7.2002, *P. Diederich* 15439 (h); Somme, à 6 km au NNW de Le Crotoy, à 1 km au SW du Bout des Crocs, près de l'entrée du parc ornithologique du Marquenterre (H22.34), sur *Fraxinus*, dans une dune plantée principalement de pins, 7.2001, *P. Diederich* 15330 (LG, h). – Pic.: Pas-de-Calais, à 5 km au SSE de Montreuil, route d'Ecuire vers Bloville, à 500 m avant Bloville (G22.38), sur *Acer*, le long d'une route, 7.2002, *P. Diederich* 15452 (h).

In the 19<sup>th</sup> century this species was relatively common in Luxembourg, where Feltgen collected it many times in the surroundings of Mersch; it was last collected there in 1891. In Belgium, it was known from one 1962 record from the Mar. district, one 1851 record from the Brab. district, and two Ard. records before 1856. It was considered to be extinct in the study area since 1962 (DIEDERICH & SÉRUSIAUX, 2000: 141). It was furthermore reported from three collections from the Mar. and Boul. districts in France (Pas-de-Calais), the most recent record being from 1973 (SPARRIUS et al., 2002). The unexpected recent discovery of a healthy population in **L** Lorr and the finding of several populations in **F** Mar. and Pic. suggest that either the species was overlooked until recently, or that it is currently spreading in our region.



***Placynthiella dasaea*** (Stirt.) Tønsberg

Belgium, Camp.: Kalmthoutse Heide, dune area with *Calluna* heathland and scattered trees (B4.27), 3.2000, *P. & B. van den Boom* 23986 (h); E of Leopoldsburg, S of Hechtel, Hechtelse Heide (C6.57), *Calluna* heathland with scattered trees, vertical facing sand along path, 3.2001, *P. & B. van den Boom* s. n. (h); NNW of Hamont, Beverbeekse Heide (B7.52), small *Calluna* heathland, 6.2000, *P. & B. van den Boom* 24282 (h); E of Genk, SW of Maasmechelen Kikmolen (D7.44), mixed forest, on *Quercus*, 4.2001, *P. & B. van den Boom* s. n. (h); ENE of Zonhoven, nature reserve 'De Teut' (D6.38), on the wood of a dead tree in a heathland, 9.2001, *P. Diederich* 15031 (h). – Lorr.: 10 km WSW of Arlon, large quarry on S side of road from Meix-le-Tige to Chantemelle, at c. 2.5 km ESE of Chantemelle (M7.15), on plant debris, 9.2002, *P. Diederich* 15554 (h). France, Pic.: Somme, Doullens, vallée de l'Authie en aval de Doullens (J0.11), sur *Populus*, le long d'un ruisseau, 3.1989, *E. Sérusiaux* 10387 (LG).

DIEDERICH & SÉRUSIAUX (2000: 144) reported this species from Luxemburg and suggested that it might be overlooked in Belgium. During recent excursions in Belgium and the southern Netherlands, it appeared to be widespread. New for Belgium.

**\**Polydesmia lichenis*** Huhtinen & R. Sant.

Luxembourg, Lorr.: E of Tétange, Langertengrond (M8.54), on the lower thallus surface of *Peltigera*, 4.1987, *G. Marson* s. n. (hb Diederich 8710); Pétange, Prénzeberg (M8.31), anciens déblais de minerai de fer, sur *P. rufescens*, 5.2003, *P. Diederich* 15617 (h).

This lichenicolous ascomycete was described from Norway and Sweden on *Peltigera* species (HUHTINEN & SANTESSON, 1997) and was eventually also recorded from Austria (HAFELLNER, 1998). Our material is poorly developed, and the perithecia are immature. Nevertheless, the most characteristic ascomata were compared macroscopically and microscopically with an isotype specimen (in hb Diederich), and perfectly match this species. New for the study area.

**\**Pronectria oligospora*** Lowen & Rogerson var. ***octospora*** Etayo

Belgium, Camp.: 8 km S of Geel, Zammel, Zammelsbroek (C5.58), on *Punctelia subrudecta*, 1.2002, *O. Heylen* (h, hb Diederich).

Lichenicolous ascomycete new for the study area.

**\**Pronectria pertusariicola*** Lowen

Belgium, Lorr.: 6 km SE of Florenville, 4 km S of Pin, along road to Abbaye d'Orval, small valley W of road, just S of Etang du Pré Frère Simon (L6.57), on *Acer pseudoplatanus*, on *Pertusaria pertusa*, 9.2002, *P. Diederich* 15527 (h).

Madeira: road between Ribeira Brava and S. Vicente, 2 km N of Encumeada, 800 m, on *Pertusaria*, 4.1992, *P. Diederich* 4885 (h).

This lichenicolous ascomycete was known from the Canary Islands, France, Great Britain, Ireland, Spain and Sweden (COPPINS & COPPINS, 2000; ETAYO, 1996; FOX, 2000; ROSSMAN et al., 1999), and is here newly reported from Belgium and from Madeira. The original account of the species is somewhat confusing, as the ascospores were said to be (9-)15-20 × 4.5-5(-6) µm in the description (p. 59), but only 9-12 × 4.5-5 µm in the key (p. 62) (ROSSMAN et al., 1999). The ascospores in the Belgian specimen are 12-14 × 5.5-6.5 µm.

***Protopannaria pezizoides*** (Weber) P. M. Jørg. & S. Ekman

Syn.: *Pannaria pezizoides* (Weber) Trevis.

Belgium, Mosan: N of Villers-sur-Lesse, near Château Royal (J6.13), mossy slope in ditch, 5.2001, P. & B. van den Boom 26501 (h, LG).

The latest report of this species in the area of study dates back to 1947 from the Berdorf area in L Lorr. (SÉRUSIAUX, 1984: 85). It was believed to be extinct and its recent discovery in a ditch by a road indicates it may still be present in other localities.

***Protoparmelia hypotremella*** van Herk, Spier & Wirth

Belgium, Ard.: Nassogne, SW side of Bosteubois (J6.27), edge of mixed forest, on *Quercus*, 4.2001, P. & B. van den Boom 26462 (h, LG).

This sterile corticolous species was formerly known from a single locality in the area of study (Mosan district) (DIEDERICH & SÉRUSIAUX, 2000: 149) and is obviously overlooked.

***Punctelia borreri*** (Sm.) Krog

Belgium, Mar.: De Panne, Westhoek, sentier le long de la frontière française (C0.56), sur *Crataegus*, 6.2001, P. Diederich 14669 (h); De Haan, nature reserve 'Zandpanne' (B1.57), on *Salix alba* near wet dune vegetation, 1.2002, O. Heylen HW/02/35 (h). – Camp.: Hulsen (Balen), river valley Grote Nete (C6.43), in wet *Salix* forest, 11.2001, O. Heylen HW/L01/556 (h); Hulshout, river valley Grote Nete (D5.15), on *Populus × canadensis*, 10.1999, O. Heylen HW/L99/550 (h); Schilde, on a tree along av. Molenstraat near the centre of Schilde (C5.11), on cf. *Robinia*, 2.2002, H. Stappaerts (hb Heylen HW/L02/65). – Mosan: Erquelines (H4.21), on *Malus*, s. d. [before 1937], *A. Gravis* s. n. (LG); Charneux (commune de Harsin), bord de la route Marche-Arlon (J6.17), tronc de *Fraxinus*, 9.1962, J. Lambinon 62/1507 (LG); Rochefort, SE of village, near entrance of caves (J6.25), on *Tilia* along parking-lot, 4.2001, P. & B. van den Boom 26391(h); Macon, le long de la route vers Chimay (J4.53), sur *Ulmus × hollandica*, 8.1962, J. Duvigneaud 62/523 (LG, with *Normandina pulchella*). – Lorr.: Torgny, on *Populus* in plantation along river Chiers (M7.42), 7.1997, L. B. Sparrius 236 (h).

Luxembourg, Lorr.: Remerschen, gravières (M9.52), sur *Salix*, 5.1998, P. Diederich 13600 (h); Lorentzweiler, Roude Bam (L8.46), sur *Juglans*, dans un verger, 10.2000, P. Diederich 14417 (h); Lasauvage (M7.48), on wayside *Acer*, 9.1999, L. B. Sparrius 3380 (h).

France, Pic.: Somme, vallée de l'Authie, ancienne abbaye de Valloires, jardin de Valloires (G22.58), sur *Acer* dans un arboretum, 7.2001, obs. *P. Diederich* (no specimen).

Species of the *Parmelia subrudecta* aggregate in Western Europe have recently been studied in great detail (VAN HERK & APTROOT, 2000). Three species are present in the area of study, viz. the widespread and common *P. subrudecta* (Nyl.) Krog and *P. ulophylla* (Ach.) van Herk & Aptroot, and the much rarer *P. borrieri* (Sm.) Krog. The specimens mentioned above represent the total of specimens that clearly belong to the latter. It is interesting to note that all three species are represented in the Belgian material studied by TARGÉ & LAMBINON (1965) and mentioned under *Parmelia borrieri* (Sm.) Turner chemovar. *pseudoborrieri* (Asahina) Lambinon & Targé.

### ***Ramonia interjecta*** Coppins

Belgium, Mosan: Lustin (G5.57), W slope along small road, on *Sambucus*, 4.2001, *P. & B. van den Boom* 26412 (h, LG).

The Netherlands: Noord-Brabant, Budel, Grote Heide, on *Sambucus*, 9.2001, *P. van den Boom* 27958 (h) & *M. Brand*.

Species of the genus *Ramonia* have never been reported from the study area. Their apothecia are immersed in the bark and thus easily overlooked.

### ***Rhizocarpon plicatile*** (Leight.) A. L. Sm.

This species was mentioned from a single collection from **B** Ard. (SÉRUSIAUX et al., 1999: 74) but this epithet applies to a crustose species of *Stereocaulon* (FRYDAY & COPPINS, 1996). Re-examination of the specimen (Chiny, 5.1986, *E. Sérusiaux* 7873, LG) following the key by FRYDAY (1996) shows that it actually belongs to the norstictic acid containing strain of *R. reductum* Th. Fr., a species already known in the study area (DIEDERICH & SÉRUSIAUX, 2000: 154). *Rhizocarpon plicatile* should thus be removed from the checklist.

### ***Rimularia insularis*** (Nyl.) Rambold & Hertel

France, Mosan: Ardennes, Rancennes, rochers d'Aviette (J5.35), rochers schisteux ± calcaireux et ensoleillés, 4.1982, *P. Malaise & E. Sérusiaux* 2737 (LG).

This collection has been waiting for a long time to be named. Indeed, the description provided by The Lichen Flora of Great Britain and Ireland (PURVIS et al., 1992: 330) is misleading as it indicates that this species is lichenicolous on *Lecanora rupicola* and has a thallus which is C-. Our specimen is clearly an autonomous lichen and reacts C+ red due to the production of gyrophoric acid. B. J. Coppins (pers. comm.) has confirmed its identity. *Rimularia insularis* is new for the area of study. The species was recently reported from the Eifel in Germany (WIRTH & HEIBEL, 1998).

**\**Roselliniella atlantica*** Matzer & Hafellner

Luxembourg, Ard.: Bourscheid, along road to Ettelbruck, near Michelau (K8.45), W exposed schistose outcrops along road, on *Neofuscelia pulla*, 10.2002, P. & B. van den Boom 29887 (h).

This species was described from the British Isles, France and Sweden on *Neofuscelia* and *Xanthoparmelia* species (Matzer & Hafellner, 1990). It has also been reported from Papua New Guinea on *Hypotrachyna* and *Parmotrema* (Aptroot et al., 1997), from the Canary Islands on *Platismatia* (Etayo, 1996), from Spain on *Neofuscelia* (Calatayud et al., 1995), and from N America (Florida) on *Parmotrema* (Etayo & Breuss, 1998). It is new for the study area.

***Sarcosagium campestre*** (Fr.) Poetsch & Schied. var. ***macrosporum*** Coppins & P. James

Belgique, Mosan: Vedrin (au N de Namur), cimetière de Vedrin (G5.26), sur des mousses dans un pot de fleur ensoleillé dans un cimetière, 11.2002, D. Ertz 2731 (BR); Plombières, parc de l'ancien site minier, on soil in *Armeria*-heathland (E8.52), 4.2001, L. B. Sparrius 4680 (h).

This taxon was formerly known from a single locality in L Lorr. (DIEDERICH & SÉRUSIAUX, 2000: 158) and from the British Isles, and is thus new for Belgium.

**\**Sphaerellothecium cladoniicola*** E. S. Hansen & Alstrup

Luxembourg, Lorr.: NE of Differdange, near Rodange, reserve Prënzeberg (M8.31), abandoned old quarry with *Betula* and *Salix* trees, on *Cladonia fimbriata*, 10.2002, P. & B. van den Boom 29846 (hb Diederich).

In the study area, this species was known only from a single 1888 specimen from B Brab. (SÉRUSIAUX et al., 1999). The additional specimen reported here is quite reduced, but shows that the species still exists in this area, and that it is most likely to be overlooked.

***Sticta fuliginosa*** (Dicks.) Ach.

Belgium, Ard.: near Herbeumont (L6.26), on *Acer*, 3.2003, D. Ertz 3052 (BR).

This macrolichen was known from a single recent locality in the Lorr. district and was considered to have disappeared from the Ard. district since 1928.

We recently revisited the Lorr. locality and found a relatively healthy population of over 40 thalli on four trees. In the Ard. locality, more than 100 thalli grow on a single *Acer* tree of 45 cm in diam. In both localities, the species grows in well-preserved old forests with important populations of *Lobaria pulmonaria*. These trees are mainly *Acer pseudoplatanus* and *A. platanoides*, and more rarely *Quercus* sp.; only one thallus of *L. pulmonaria* was observed on *Fagus sylvatica*.

As it has been already stated for *Lobarina scrobiculata* (see above), a special conservation program is urgently needed for epiphytic species of the *Lobarion* complex in S Belgium and more generally for species requiring old-growth forests.

**\**Stigmatidium aggregatum*** (Mudd) D. Hawksw.

Syn.: *Stigmatidium eucline* (Nyl.) Vězda; *Mycoporum eucline* Nyl.; ?*Pharcidia microspila* var. *pertusariae* B. de Lesd.

Luxembourg, Ard.: Heinerscheid, Kasselslay (J8.45), sur un rocher en schistes, sur *Pertusaria lactea*, 11.1983, *P. Diederich* 5035B (h).

France: Pyrénées-Orientales, flanc E du Canigou, forêt de Valmanya, chemin vers Pinateil, 1450 m, sur *P. lactea*, 7.1990, *E. Sérusiaux* 10923 (LG, hb Diederich).

Germany: Baden-Württemberg, Südschwarzwald, Simonswald, Dürstein am Ibichkopf (MTB 7814/4), 1050-1070 m, on *P. lactea*, 5.1997, *V. Wirth* 30170 (STU-Wirth).

Hungary: ad saxa granitica circa Thermae Herculis in Banatu, on *P. lactea*, 1874, *H. Lojka* (NY ex hb Leighton – isotype of *Mycoporum eucline* !).

Slovakia: Carpati, Tatra Magna, in alpe Hlúpy, 1950 m, on *P. lactea*, 6.1964, *A. Vězda* (MSC 77252).

Spain: Navarra, W Pamplona, Sierra de Urbasa, Pto de Urbasa, on *Fagus*, on *P. pertusa*, 7.1991, *P. Diederich* 9650 (h); Cuenca, Talayuelas, Pico Ranera (UTM 30SXK4408), 1400 m, on *P. pertusa*, 7.1992, *V. Calatayud* (VAB-Lich, hb Diederich).

Switzerland: Kanton Luzern, Oberwalden, Alpnach, Mittagsgüpfi, Grat SW des Gipfels, 1825-1860 m, auf *P. lactea*, 9.1997, *V. Wirth* 30766 (STU-Wirth).

*Stigmatidium aggregatum* was originally described from *Aspicilia calcarea* in Great Britain. However, HAWKSWORTH (1983) states that the species grows on *Pertusaria lactea*, without indicating if he had examined the type collection, and SANTESSON (1993) followed this option. We examined a type specimen of *Mycoporum eucline*, originally described from Hungary on *Pertusaria velata*, and found that the host is also *P. lactea*. Both taxa are obviously synonyms. A further taxon, *Pharcidia microspila* var. *pertusariae*, was described from S France on *Pertusaria pertusa*, but the type is most probably lost. As we have seen two typical Spanish specimens of *S. aggregatum* growing on *P. pertusa* (incl. *P. rupestris*), this supports the idea that *P. m.* var. *pertusariae* is a further synonym of *S. aggregatum*.

The species does not belong to *Stigmatidium*, as the hamathecium is composed of 1.5-2.5 µm thick, anastomosed, septate pseudoparaphyses, and the ascospores become brownish when overmature (observed in the isotype collection of *Mycoporum eucline*). The ascospores are 1-septate, smooth, hyaline except when old, without a distinct perispore, 11.5-18 × 5-5.5 µm. The centrum is KI-, but the epiplasm turns deep orange in KI. The asci are elongate, thick-walled, with a distinct ocular chamber. Further studies are needed to determine the accurate systematic position of this fungus.

*Stigmidium aggregatum* was known from Austria, Great Britain, Hungary, Italy, Norway, Slovakia and Sweden (HAWKSWORTH, 1983; SANTESSON, 1993; TRETACH & HAFELLNER, 2000; WITTMANN & TÜRK, 1994), and is here newly reported from France, Germany, Luxembourg, Spain and Switzerland.

\**Stigmidium mycobilimbiae* Cl. Roux, Triebel & Etayo

Luxembourg, Lorr.: NE of Differdange, Tételberg, near Rodange, reserve Prënzeberg (M8.31), on *Mycobilimbia sabuletorum*, 10.2002, P. & B. van den Boom 29818 (h); SSW Bascharage, près du Moulin de Bascharage (M8.31), sur un mur en grès, sur *M. sabuletorum*, 8.1987, P. Diederich 8331 (h); W of Kayl, Monument des mineurs (M8.53), on *M. sabuletorum*, 10.2002, P. & B. van den Boom 29882 (h).

Netherlands: Limburg, Bemelen, 't Rooth, voormalige mergelgroeve met geëxponeerde en beschaduwde blokken tufkrijt (km.blok 62-21-43, 182/316), on *M. sabuletorum*, 5.1998, P. Diederich 13684 (h).

A minuscule, and probably overlooked lichenicolous ascomycete, apparently confined to the genus *Mycobilimbia*. New for the study area.

\**Stigmidium peltideae* (Vain.) R. Sant.

Luxembourg, Lorr.: Pétange, Prënzeberg (M8.31), abandoned old quarry with *Betula* and *Salix* trees, on *Peltigera hymenina*, 10.2002, P. & B. van den Boom 29843 (h); *ibid.*, on *P. neckeri*, 5.2003, P. Diederich 15619 (h).

This species was reported from L Ard. by DIEDERICH et al. (1991), but SÉRUSIAUX et al. (1999) showed that the corresponding specimen belongs to *Stigmidium pseudopeltideae* Cl. Roux & Triebel. That latter name was published as a nomen nudum by ROUX & TRIEBEL (1994), and has recently been validated (DIEDERICH, 2003).

In our recent collections, the perithecia are very small (30-40 µm in Diederich 15619, 30-60 µm in van den Boom 29843, compared to 50-70 µm in ROUX & TRIEBEL, 1994), and the ascospores are also smaller (7-10 × 2.5-3 µm; compared to (8.5-)9-11.5(-12) × (2.5-)3-3.5(-4.5) µm in ROUX & TRIEBEL, 1994). Nevertheless we consider that they belong to *Stigmidium peltideae*, and that the variability of this species is larger than given by ROUX & TRIEBEL (1994). *S. peltideae* is reported here as new for the study area.

\**Taeniolella beschiana* Diederich

Belgium, Camp.: ENE of Zonhoven, nature reserve 'De Teut' (D6.38), terricolous in heathland, on basal squamules of *Cladonia chlorophaea*, 11.2001, P. Diederich 15020 (h).

This lichenicolous hyphomycete, originally described from Luxembourg (DIEDERICH, 1992), is here newly recorded for Belgium.

**\**Tremella caloplacae* (Zahlbr.) Diederich comb. nov.**

Bas.: *Lindauopsis caloplacae* Zahlbr., Ber. Deutsch. Bot. Ges. 24: 145 (1906).

Type: Crete, ‘an Kalkfelsen bei Kristallenia’, 1904, *R. Sturany* (W 11196, lichenicolous fungus in apothecia of *Caloplaca*: lectotype, here designated).

France: Vaucluse, à 2 km au S de Gordes, col de Gordes, sur un mur, sur *Caloplaca*, 4.1995, *P. Diederich* 12328 (h).

Spain: Castilla-La Mancha, prov. Toledo, cerca de Los Yébenes, on *C. carphinea*, 7.2000, *V. Calatayud* 111 (h, hb Diederich).

In his revision of lichenicolous heterobasidiomycetes, DIEDERICH (1996) described and illustrated a species growing in the hymenium of *Caloplaca* in Austria and Great Britain, but left it provisionally unnamed (as ‘*Tremella* sp. 1’), as almost no differences could be detected with *Tremella rinodinae*, an intrahymenial parasite of *Rinodina gennarii*. In the mean time, the species has twice been mentioned from our study area (NAVARRO-ROSINÉS & HLADUN, 1996; SPARRIUS et al., 2002) in F Mar. We have seen additional specimens from France and Spain (see above mentioned collections).

We found an old name for this species, *Lindauopsis caloplacae* Zahlbr., described from Crete, and we take the opportunity here to combine it in *Tremella*. The new genus and species were described by ZAHLBRUCKNER (1906) as a hyphomycete with large, 1-septate conidia. However, the ‘conidia’ depicted by ZAHLBRUCKNER (1906) in figs 3-4 are nothing else than tremelloid basidia with one transverse septum. The subspherical cells attached to the hyphae of the fungus, as depicted in ZAHLBRUCKNER (1906: fig. 2) are tremelloid haustoria, on which the haustorial filament is not represented. The detailed description and drawings provided by ZAHLBRUCKNER (1906) and re-examination of the type specimen leave no doubt that *Lindauopsis caloplacae* represents ‘*Tremella* sp. 1’ (sensu DIEDERICH, 1996).

*Lindauopsis caloplacae* was studied in great detail by RIEDL (1976). The author concluded that it does not represent a lichenicolous fungus, “but structures of a hymenial layer degenerated through the competition with an over-growing thallus of a different lichen species. Paraphyses tend to form spore-like ends, while asci are much narrowed and produce only 1 or 2 spores, becoming paraphysis-like in the parts not containing spores”. This erroneous conclusion is not astonishing if we consider that the whole of the lichenicolous heterobasidiomycetes were wrongly interpreted by lichenologists over more than 250 years, as exemplified by *Biatoropsis usnearum* (DIEDERICH & CHRISTIANSEN, 1994). HAWKSWORTH (1979) claims that his “examination of the lectotype specimen confirms Riedl’s interpretation of this name”.

The typification of the name *L. caloplacae* is more problematic. We received two specimens on loan from W, both designated as types of this species. One annotated “*Lindauopsis Caloplacae* A. Zahlbr. Parasitisch im Hymenium der

*Caloplaca (Gasparrinia) callopisma* Th. Fr. Kreta: an Kalkfelsen bei Kristallenia, 1904, leg. R. Sturany, spec. orig. !; Acqu. 1906 N° 11196” obviously represents the type specimen studied by Zahlbruckner, as the apothecia are heavily attacked by the *Tremella*. A second specimen is annotated “*Caloplaca (Gasparrinia) callopisma* Th. Fr., Kristallenia in der Hochebene Lasithiotika, Ost Kreta, Kalk, Juni 1904, leg. Sturany; 729”; the *Caloplaca* apothecia appear to be healthy and are not visibly parasitized. ZAHLBRUCKNER (1906) wrote that Dr R. Sturany collected *Lindauopsis caloplacae* ‘auf Kalkfelsen bei Kristallenia in Ostkreta’ on *Caloplaca callopisma*, and that the apothecia were ‘stark deformiert’, which perfectly fits specimen 11196. RIEDL (1976) regretted that the type specimen was not annotated with the name of the fungus, nor integrated in the fungal herbarium in W, but instead was found under the name *Caloplaca callopisma* within the lichen herbarium. This strongly suggests that Riedl did not see the genuine type specimen, but instead another specimen of the host species collected by Sturany in Crete, that appeared to be infected by the *Tremella* as well. HAWKSWORTH (1979) cited the type specimen as ‘Crete, Paßhöhe Bebona bei Kavusi, in apothecia of *Caloplaca aurantia*, on limestone, 21 May 1904, R. Sturany (W 1906/755–lectotype!)’. This certainly does not represent any type material, as the locality is different from that published by ZAHLBRUCKNER (1906). It is not clear if HAWKSWORTH (1979) lectotypified the name on this specimen, or if he referred to an earlier lectotypification (possibly indicated on the label of the specimen). In any case, we have to follow the ICBN (art. 9.17) that requires that an earlier lectotypification is superseded (a) if the holotype is rediscovered, or (b) if one can show that it is in serious conflict with the protologue and another element is available that is not in conflict with the protologue, or (c) if the type specimen contains more than one species and the name was lectotypified on a part that does not correspond most nearly with the original description. As the three conditions of art. 9.17 are satisfied, we here re-lectotypify the name *Lindauopsis caloplacae* on the lichenicolous fungus present in the hymenium of *Caloplaca* in specimen 11196 (W).

*Tremella caloplacae* is so far known from Algeria (ZAHLBRUCKNER, 1906), Austria, Crete, France, Great Britain and Spain on several *Caloplaca* species, including *C. arenaria*, *C. arnoldii*, *C. aurantia*, *C. carphinea* and *C. saxicola*. It is most probably much overlooked, as no visible basidiomata are present, but instead just swollen host apothecia that tend to become darker.

\**Tremella candeliariellae* Diederich & Etayo

Belgium, Brab.: Geraardsbergen, Chappel Oudenberg (E3.45), on the wall of a church (calcareous stones, mortar, etc.), on *Candeliariella vitellina*, 8.1999, P. Diederich 13915 (h) & M. Hoffmann.

Luxembourg, Lorr.: Lorentzweiler, Roude Bam (L8.46), sur un toit en eternit, sur *C. aurella*, 6.1997, P. Diederich 12808 (h); SE of Lasauvage, Grand-Bois (M7.48),



on roadside *Acer*, on *C. xanthostigma*, 9.1996, *P. Diederich* 12435 (h); *ibid.*, on *C. vitellina*, 9.1996, *P. Diederich* 12436 (h).

This lichenicolous basidiomycete was known from Luxembourg and Spain, on *Candelariella vitellina* and *C. xanthostigma* (DIEDERICH, 1996). We here report it as new for Belgium, and also on a new host, *C. aurella*. In specimens *P. Diederich* 12808 and 12435, we were able to demonstrate the presence of asteroconidia, previously not known from this species. Interestingly, in Lasauvage, the species was present on *Candelariella vitellina* and *C. xanthostigma*, but absent on *C. reflexa*.

**\**Trichonectria anisospora* (Lowen) van den Boom & Diederich comb nov.**

Bas.: *Nectriella anisospora* Lowen, Mem. New York Bot. Garden 49: 248 (1989); *Pronectria anisospora* (Lowen) Lowen, Mycotaxon 39: 461 (1990).

Belgium, Ard.: SE of Eupen, Hertogenwald, N side along road to Monschau, nature reserve, path from Brackvenn to Nahtsief (F8.56), on *Hypogymnia physodes*, 9.2001, *B. & P. van den Boom* 27965 (h, hb Diederich).

The genus *Pronectria* (syn. *Nectriella*) includes 27 lichenicolous species (LAWREY & DIEDERICH, 2003), all with more or less immersed perithecia. One of them, *Pronectria anisospora* is distinguished from all other species of the genus by setose perithecia (LOWEN, 1989). Our recent discovery of a fully mature population in Belgium allowed us to recognize that perithecia are initially entirely immersed and non-setose, become erumpent, with the development of setae on the exposed parts around the ostiole, and finally become superficial. The setae are hyaline, aseptate, smooth, straight, solitary and thick-walled (LOWEN, 1989). The mature, superficial perithecia fully agree with the current circumscription of the genus *Trichonectria* (see ROSSMAN et al., 1999), and the new combination in that genus is here proposed. *Trichonectria anisospora* appears to be confined to a single host species, *Hypogymnia physodes*. It is so far known from Austria (HAFELLNER, 1996), Belgium, the British Isles (HAWKSWORTH, 1990; hb Diederich), France, Spain (ETAYO, 1998) and the USA (LOWEN, 1989). It is new for the study area.

*Trichonectria anisospora* is the seventh known lichenicolous species of the genus, the other being *T. hirta* (Bloxam) Petch (generic type) (ROSSMAN et al., 1999), *T. rubefaciens* (Ellis & Everh.) Diederich & Schroers (SÉRUSIAUX et al., 1999), *T. leptogiicola* Etayo (ETAYO, 2001), *T. hypotrachynae* Etayo, *T. setadpressa* Etayo and *T. usneicola* Etayo (ETAYO, 2002). In a recent paper on American lichenicolous fungi, COLE & HAWKSWORTH (2001) combined *T. rubefaciens* (as ‘*rubifaciens*’) in *Nectriopsis*, on the basis of the absence of thick-walled setae in the specimen examined by them. The authors didn’t say if they observed thin-walled setae, or if setae were absent. Examination of the holotype of *T. rubefaciens* (in NY) by Dr G. Samuels (pers. comm.), and comparison

with Luxembourg material of the same species (*P. Diederich* 8910), proved that ascomatal setae in this species are definitely thick-walled (Fig. 1). This suggests that the specimen examined by COLE & HAWKSWORTH (2001) is in a poor condition, or belongs to a different species. We are aware that the generic limits between *Trichonectria* and *Nectriopsis* are far from being clear, and also that the ascospores and anamorph of most *Trichonectria* species are different from those of the type species, *T. hirta*, but for the moment, we believe that it is best to include both *T. anisospora* and *T. rubefaciens* within the genus *Trichonectria*.

\**Unguiculariopsis thallophila* (P. Karst.) W. Y. Zhuang

Luxembourg, Ard.: S of Beiler (J8.15), on *Lecanora chlarotera*, on *Populus*, 8.1986, *P. Diederich* 7297 (h).

France, Pic.: Pas-de-Calais, à 5 km au SSE de Montreuil, route d'Ecuires vers Bloville, à 500 m avant Bloville (G22.38), sur *Acer*, le long d'une route, sur *L. chlarotera*, 7.2002, *P. Diederich* 15453 (h).

Lichenicolous ascomycete new for the study area.

*Verrucaria elaeina* Borrer

Belgium, Mosan: Dinant, Fonds de Leffe (H5.38), shaded calcareous rock in forest, 2 & 4.1999, *D. Ertz* 26 & 54 (LG); Dinant, Devant-Bouvignes (H5.37), shaded calcareous rock in forest, 3.1999, *D. Ertz* 37 (LG); Anseremme, rochers de Moniat (H5.47), shaded calcareous outcrop in forest, 4.1999, *D. Ertz* 528 (LG); Plainevaux, roche aux Faucons (F7.52), shaded calcareous rock at the top of an outcrop, 10.2001, *D. Ertz* 390 (LG); Embourg, rochers du Bout du Monde (F7.53), shaded and damp calcareous outcrop in forest, 11.2001, *D. Ertz* 399 (LG); Comblain-au-Pont, Les Tartines (G7.23), base of a calcareous outcrop in forest, 11.2001, *D. Ertz* 356 (LG); Yvoir, rocher de Champalle (H5.27), calcareous rock in forest, 12.2001, *D. Ertz* 417 (LG); Huy, entrée du vallon de Solières (G6.14), shaded calcareous rock in forest, 3.2002, *D. Ertz* s.n. (LG).

Luxembourg, Lorr.: au S de Schengen, dans la forêt 'Fiels' (N9.12), 280 m, sur une paroi verticale ombragée en calcaire coquillier, dans une forêt, 8.1998, *P. Diederich* 13721 (h).

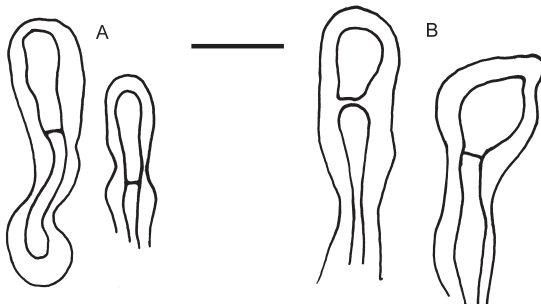


FIG. 1. — Ascomatal setae of *Trichonectria rubefaciens*. A, holotype (NY); B, *P. Diederich* 8910 (h) (del. G. Samuels). Scale bar = 10  $\mu$ m.

This species has recently been recognized as distinct from the closely related, but aquatic *Verrucaria praetermissa* (Trevis.) Anzi (ORANGE, 2000), and the records of the latter on shaded outcrops (DIEDERICH & SÉRUSIAUX, 2000) refer to it. It is new for the area of study.

***Verrucaria hegetschweileri* Körb.**

Belgium, Ard.: Gedinne, centre village (K5.18), on exposed roots at the base of *Acer pseudoplatanus*, 5.2000, P. van den Boom 24350 (h, LG).

This rare corticolous species of *Verrucaria* was known only from Switzerland and Czech Republic (BREUSS, 1998). It is new for the area of study.

***Verrucaria papillosa* Ach.**

France, Pic.: Somme, à 6 km au NW d'Abbeville, Port-le-Grand, grande ferme fortifiée au centre du village (J22.17), sur un mur, 7.2001, P. Diederich 15388 (h).

New for the study area.

***Verrucaria sorbinea* Breuss**

Belgium, Mosan: SE of Rochefort, near entrance of caves (J6.15), on *Tilia* in parking-lot, 4.2001, P. & B. van den Boom 26421 (h, LG).

This species was so far known only from two collections, incl. the type originating from Luxembourg (BREUSS, 1998). It is thus the third report of this most probably overlooked species.

***Vezdaea acicularis* Coppins**

Belgium, Camp.: E of Leopoldsburg, S of Hechtel, Hechtelse Heide (C6.57), *Calluna* heathland with scattered trees, vertical facing sand along path, 3.2001, P. & B. van den Boom 262871(h) (fertile).

This species is widespread in the southern Netherlands, and has just been found in the Camp. district in N Belgium. It was growing close to *V. retigera* in a locality where an extensive population of *Cladonia zopfii* exists. The species was formerly known from a single locality in N France in the Ard. district (DIEDERICH et al., 1991: 43). It might be more common than previously expected, particularly in N Belgium.

**\**Vouauxiella verrucosa* (Vouaux) Petr. & Syd.**

This species has recently been published as new for Belgium (SÉRUSIAUX et al., 1999: 86). This has to be corrected: the corresponding specimens represent *V. lichenicola* (Linds.) Petr. & Syd. with verruculose conidia. *Vouauxiella verrucosa* has therefore to be deleted from the Checklist (DIEDERICH & SÉRUSIAUX, 2000: 176).

## *Xanthoria*

The entire material of sorediate *Xanthoria* specimens from LG and the private collections of P. Diederich and P. van den Boom was examined. Three species could be recognized:

*X. candelaria* is the most common and widespread species and is abundant on the bark of various trees throughout the entire study area, and occurs more rarely on walls, where the thalli are often typically coralloid (Fig. 2).

*X. fallax* occurs mainly in the Ard. district, more rarely in the Mosan district and, with the exception of one very old specimen from Luxembourg, is exclusively saxicolous on siliceous rocks and walls (Fig. 3).

*X. ulophylloides* also has a more restricted distribution, as it is known from the Ard. and Lorr. districts, always on the bark of trees; most specimens of *X. ulophylloides* were hidden in the herbaria under *X. candelaria*. The recent report of *X. fallax* from the Boul. district in France (SPARRIUS et al., 2002) is wrong; the specimen has been re-examined by L. Sparrius (pers. comm.) who found it to belong to *X. ulophylloides* (Fig. 4).

*Xanthoria fulva* (Hoffm.) Poelt & Petutschnik does not appear to occur in the study area.

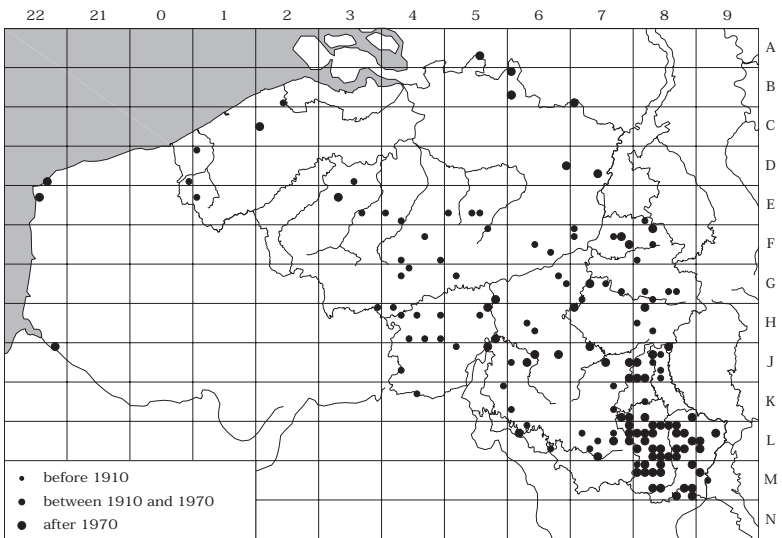


FIG. 2. — Known distribution of *Xanthoria candelaria* in Belgium, Luxembourg and northern France, based on the study of herbarium material, using the IFBL-grid (squares of  $4 \times 4$  km<sup>2</sup>).

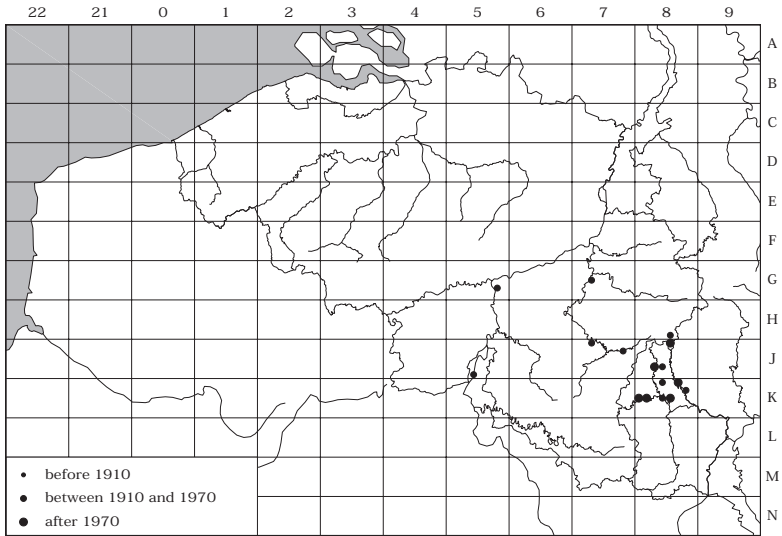


FIG. 3. — Known distribution of *Xanthoria fallax* in Belgium, Luxembourg and northern France, based on the study of herbarium material, using the IFBL-grid (squares of  $4 \times 4 \text{ km}^2$ ).

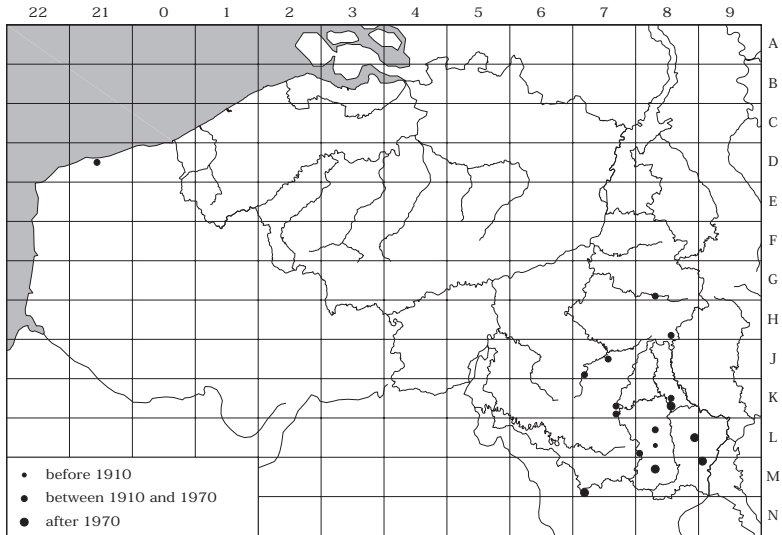


FIG. 4. — Known distribution of *Xanthoria ulophyllodes* in Belgium, Luxembourg and northern France, based on the study of herbarium material, using the IFBL-grid (squares of  $4 \times 4 \text{ km}^2$ ).

### *Xanthoria fallax* (Hepp) Arnold

Belgium, Mosan: Dave, au pied des Rochers du Néviaux (G5.47), 6.1968, paroi subverticale ombragée de calc. dolomitique, *J. Lambinon* 68/545 (LG); Comblain-au-Pont, Les Tartines, tête des rochers calcaires au-dessus de l'hôtel 'Relais des Gourmets' (G7.33), 6.1967, paroi verticale exp. SW, *J. Lambinon* 67/282 (LG). – Ard.: La Roche-en-Ardenne, défilé de la route à l'entrée W de la localité (J7.13), 5.1960, rochers schisteux durs contre la route, *J. Lambinon* 60/597 (LG); Houffalize, dans la localité (départ de la route de Mabrompé) (J7.27), 5.1964, rochers (quartzophyllade) ± verticaux, exp. S, *J. Lambinon* 64/399 (LG); Peterskirche (comm. Reuland), près d'une petite chapelle sous roche, au début du chemin de Leithum (H8.55), 8.1964, rochers schisteux verticaux ensoleillés, *J. Lambinon* 64/1224 (LG); Peterskirche (comm. Reuland), vieux mur vertical de soutien de terres, bord route dans le village, exp. S (H8.55), 8.1964, *J. Lambinon* 64/1213 (LG); Burg-Reuland (H8.55), 8.1964, mur vertical un peu ombragé, exp. S, *J. Lambinon* 64/1206 (LG).

Luxembourg, distr. unknown: S. loc., c. 1840, corticolous, *F.-A. Tinant* 15 (LUX). – Ard.: Michelau (rive gauche de la Sûre au N de Diekirch), muret dans le village (K8.34), 5.1966, *J. Lambinon* 66/248 (LG); Lellange (au SW de Bockholz-lez-Hosingen), vieux muret dans le village (K8.14), 5.1966, *J. Lambinon* 66/236 (LG); Brandenburg, rochers schisteux subverticaux ensoleillés, près des ruines du château-fort (K8.35), 9.1966, *J. Lambinon* 66/1494 (LG); Vianden, rochers schisteux au pied du vieux beffroi (K8.27), 6.1961, *J. Lambinon* 61/546 (LG); Clervaux, rochers schisteux au pied du château-fort (J8.44), 6.1961, *J. Lambinon* 61/606 (LG); Esch-sur-Sûre, rochers schisteux (avec flore calcicole) au pied du château-fort (K8.32), 6.1961, *J. Lambinon* 61/592 & 593 (LG); Esch-sur-Sûre, mur à la berge de la Sûre (K8.32), 6.2002, sur un mur en pierres siliceuses, *P. Diederich* 15426 (h); ESE of Hosingen, Untereisenbach, centre, on S exp. schist-wall along road near restaurant 'Holle Bolle Gijs' (K8.16), 4.1988, *P. van den Boom* 6705 (h).

France, Ard.: Ardennes, Fépin, rochers subverticaux éodévonien au bord de la route de la rive gauche de la Meuse à hauteur du bois de Fépin (J5.54), 4.1968, *J. Lambinon* 68/176 (LG).

See comments under *Xanthoria*.

### *Xanthoria ulophyllodes* Räsänen

Belgium, Ard.: Ligneuville, dans le village, près du pont (G8.53), sur *Aesculus*, 3.1961, *J. Lambinon* 61/130 (LG); Compogne (comm. de Bertogne) (J7.35), 5.1964, *J. Lambinon* 64/419 (LG); Gremelange (comm. Martelange), dans le village (K7.56), 5.1964, *J. Lambinon* 64/598 (LG); Tintange, dans le village (K7.46), sur *Fraxinus*, 1964, *J. Lambinon* 64/611 (LG); Radelange (comm. Martelange), près de l'église (K7.56), 5.1964, *J. Lambinon* 64/578 (LG); Burg-Reuland (H8.55), 8.1964, *J. Lambinon* 64/1207 (LG); Autelbas, près du château (L8.51), sur *Aesculus*, 8.1965, *J. Lambinon* 65/768 (LG); Amberloup, bord de la grand-route entre le village et Sprimont (J7.52), 2.1966, *J. Lambinon* 66/27 & 37 (LG).

Luxembourg, Lorr.: Tuntingen (L8.43), sur *Pyrus*, 5.1891, *J. Feltgen* 308, 309 (LUX); au NNW de Diekirch, entre Friedhof et Kippenhof, bord de la route de Hoscheid (K8.35), sur *Fraxinus*, 9.1966, *J. Lambinon* 66/1489 (LG, LUX); Boevange-sur-Attert

(L8.23), sur *Tilia*, le long d'une route, 1967, *J. Lambinon* 67/554 (LG); Erpeldange (près d'Ettelbruck), près de la Mairie (K8.45), sur *Tilia*, 7.1980, *P. Diederich* 2403 (h); Dippach, verger au N du village (M8.23), sur *Malus*, dans un verger, 3.1996, *P. Diederich* 12360 (h); Graulinster, en bord de route dans le village (L8.38), 7.1995, *P. Diederich* 12289 (h); au S de Gostingen (M9.11), sur *Malus*, 6.1979, *P. Diederich* 1299 (h).

France, Boul.: Pas-de-Calais, between Oye-Plage and Marck (D21.34), on *Ulmus* along road, 1954, *J. Barkman* 4544 (L). – Lorr.: Meurthe-et-Moselle, S of Virton, 1 km N of Charency-Vezin, military graveyard with very old *Tilia* trees (M7.52), on *Tilia*, 1998, *P. van den Boom* 20037 (h).

New for the study area. See under *Xanthoria* for further comments.

**\**Zwackhiomyces immersae* (Arnold) Grube & Triebel**

Luxembourg, Lorr.: entre Dudelange et Kayl, Haard (M8.54), sur *Bacidia bagliettoana* terricole, 7.2002, *P. Diederich* 15496 (h), *J. Miadlikowska & D. Ertz*.

France, Mar.: Somme, au NE de Cayeux-sur-Mer, Brighton, à 500 m à l'W du phare, vis-à-vis du centre de vacances (H22.52), levée de galets, ancienne ballastière, végétation principalement terricole, sur *B. bagliettoana*, 7.2001, *P. Diederich* 15332 (h).

Following GRUBE & HAFELLNER (1990), *Z. immersae* grows on *Clauzadea* species, and has additionally been collected before 1914 on *Bacidia bagliettoana* near Dunkerque in our study area (F Mar.). We report here the discovery of two recent collections on the same host, *B. bagliettoana*. More detailed studies, together with the examination of representative specimens on *Clauzadea*, will be necessary to find out if the material from both host genera is homogeneous, or if that on *Bacidia* belongs to a different, yet undescribed species.

## SUMMARY

If expanded to the Boulogne and Picardy districts in northern France (see above), and together with the data presented in this paper and some other recently published papers (see above), the checklist of the lichens and lichenicolous fungi recently published by DIEDERICH & SÉRUSIAUX (2000) must be emended as follows:

**Species to be added to the checklist:**

- \**Abrothallus caerulescens* Kotte
- \**Abrothallus cladoniae* R. Sant. & D. Hawksw.
- Agonimia gelatinosa* (Ach.) Brand & Diederich
- \**Arthonia digitatae* Hafellner
- Bacidia brandii* Coppins & van den Boom
- Bacidia laurocerasi* (Duby) Zahlbr.
- Bagliettoa parmigerella* (Zahlbr.) Vězda & Poelt
- Bryoria capillaris* (Ach.) Brodo & D. Hawksw.

*Caloplaca cerinelloides* (Erichsen) Poelt  
*Caloplaca marina* (Wedd.) Du Rietz  
*Caloplaca microthallina* (Wedd.) Zahlbr.  
*Caloplaca thallincola* (Wedd.) Du Rietz  
*Celothelium ischnobelum* (Nyl.) Aguirre  
*Chrysothrix flavovirens* Tønsb.  
*Cladonia cyathomorpha* W. Watson  
*Cladonia monomorpha* Aptroot, Sipman & van Herk  
\**Cladoniicola staurospora* Diederich, van den Boom & Aptroot  
*Cliostomum flavidulum* Hafellner & Kalb  
*Collema coccophorum* Tuck.  
*Cryptolechia carneolutea* (Uerner) A. Massal.  
\**Didymellopsis collematum* (J. Steiner) Grube & Hafellner  
\**Dinemasporium strigosum* (Fr.) Sacc.  
(+) *Epigloea renitens* (Grummann) Döbbeler  
*Gyalidea minuta* van den Boom & Vězda  
\**Intralichen baccisporus* D. Hawksw. & M. S. Cole  
\**Kalaallia reactiva* Alstrup & D. Hawksw.  
\**Lasiosphaeriopsis salisburyi* D. Hawksw. & Sivanesan  
*Lecanactis dilleniana* (Ach.) Körb.  
*Lecania atrynoides* Knowles  
*Lecanora jamesii* Laundon  
*Lecanora leuckertiana* Zedda  
*Lecanora zosteriae* (Ach.) Nyl.  
*Lecidea siderolithica* Müll. Arg.  
*Leiorreuma lyellii* (Sm.) Staiger  
*Lichina confinis* (Müller) Agardh  
*Micarea viridileprosa* Coppins & van den Boom  
*Mycomicrothelia confusa* D. Hawksw.  
\**Neolamya peltigerae* (Mont.) Theiss. & Syd.  
*Opegrapha gyrocarpa* Flotow  
*Opegrapha soreidiifera* P. James  
*Parmelia ernstiae* Feuerer & A. Thell  
*Peltigera extenuata* (Vain.) Lojka  
*Peltigera monticola* Vitik.  
\**Phacopsis fusca* (Triebel & Rambold) Diederich  
\**Polydesmia lichenis* Huhtinen & R. Sant.  
\**Pronectria oligospora* Lowen & Rogerson var. *octospora* Etayo  
\**Pronectria pertusariicola* Lowen  
*Protoparmelia oleaginea* (Harmand) Coppins  
*Ramonia interjecta* Coppins  
*Rimularia insularis* (Nyl.) Rambold & Hertel



\**Roselliniella atlantica* Matzer & Hafellner  
\**Stigmidium aggregatum* (Mudd) D. Hawksw.  
\**Stigmidium mycobilimbiae* Cl. Roux, Triebel & Etayo  
\**Stigmidium peltideae* (Vain.) R. Sant.  
\**Stromatopogon cladoniae* Diederich & Sérus.  
\**Trichonectria anisospora* (Lowen) van den Boom & Diederich  
\**Unguiculariopsis thallophila* (P. Karst.) W. Y. Zhuang  
*Verrucaria elaeina* Borrer  
*Verrucaria erichsenii* Zschacke  
*Verrucaria halizoa* Leight.  
*Verrucaria hegetschweileri* Körb.  
*Verrucaria maura* Wahlenb.  
*Verrucaria papillosa* Ach.  
*Verrucaria sandstedei* B. de Lesd.  
*Xanthoria ulophylloides* Räsänen

**Species confirmed:**

*Clauzadea chondrodes* (A. Massal.) Clauzade & Cl. Roux  
(\**Epilichen scabrosus* (Ach.) Hafellner  
*Lempholemma chalazanum* (Ach.) B. de Lesd.

**Species to be deleted:**

*Bryoria implexa* (Hoffm.) Brodo & D. Hawksw.  
\**Phacopsis oxyspora* (Tul.) Triebel & Rambold  
*Rhizocarpon plicatile* (Leight.) A. L. Sm.  
*Verrucaria* sp. (see DIEDERICH & SÉRUSIAUX, 2000: 174) is *V. macrostoma*  
\**Vouauxiella verrucosa* (Vouaux) Petr. & Syd.

[*Cliostomum corrugatum* (Ach.) Fr. was not accepted in the Checklist, but reported from a locality in France close to the study area; with the expansion of this area to a larger part of northern France, *C. corrugatum* should now be added to the checklist; however, SPARRIUS et al. (2002) show that the corresponding specimen belongs to *C. griffithii*, and *C. corrugatum* definitely does not exist in the area.]

**Taxonomic and nomenclatural changes:**

*Caloplaca maritima* (B. de Lesd.) B. de Lesd., instead of *C. maritima* B. de Lesd.  
*Cladina* is best included in *Cladonia* as a subgenus (see DIEDERICH & SÉRUSIAUX, 2000 for nomenclatural changes)  
*Cladonia pulvinata* (Sandst.) van Herk & Aptroot, instead of *C. cervicornis* subsp. *pulvinata* (Sandst.) Ahti  
*Cladonia verticillata* (Hoffm.) Schaer., instead of *C. cervicornis* subsp. *verticillata* (Hoffm.) Ahti  
*Diplotomma alboatrum* (Hoffm.) Flot., instead of *Buellia alboatra* (Hoffm.) Th. Fr.  
*Diplotomma dispersum* (Kremp.) Arnold, instead of *Buellia subdispersa* Mig.

- Diplotomma hedinii* (H. Magn.) comb. ined. (provisionally placed here, ICBN art. 34.1b) (syn.: *Buellia hedinii* H. Magn., *Diplotomma epipolium* auct., non (Ach.) Arnold), instead of *Buellia venusta* (Körb.) Lettau  
*Fellhanera gyrophorica* Sérus., Coppins, Diederich & Scheidegger, instead of *Fellhanera* sp.  
*Graphis britannica* Staiger is a new name for *Graphina anguina* auct. europ.  
*Illosporioropsis christiansenii* (B. L. Brady & D. Hawksw.) D. Hawksw., instead of *Hobsonia christiansenii* B. L. Brady & D. Hawksw.  
*Lecanora dispersella* auct., non Steiner, instead of *L. crenulata* auct., non (Mont.) Müll. Arg.  
*Lecanora flotoviana* Spreng., instead of *L. flotowiana* (see LAUNDON, 2003)  
*Lepraria flavescens* Cl. Roux & Tønsberg, instead of *L. flavescens* Clauzade & Cl. Roux  
*Lepraria membranacea* (Dicks.) Vain., instead of *Leproloma membranaceum* (Dicks.) Vain.  
*Lepraria vouauxii* (Hue) R. C. Harris, instead of *Leproloma vouauxii* (Hue) J. R. Laundon  
*Lichenomphalia hudsoniana* (H. S. Jenn.) Redhead et al., instead of *Omphalina hudsoniana* (H. S. Jenn.) H. E. Bigelow  
*Lichenomphalia umbellifera* (L.: Fr.) Redhead et al., instead of *Omphalina umbellifera* (L.: Fr.) Quéf.  
*Lichenopeltella hydrophila* R. Sant., instead of *L. hydrophila* R. Sant. ined.  
*Marchandiobasidium* Diederich & Schultheis and *M. aurantiacum* Diederich & Schultheis are the teleomorphs of *Marchandiomyces* Diederich & D. Hawksw. and *M. aurantiacus* (Lasch) Diederich & Etayo  
*Merismatium deminutum* (Arnold) Cl. Roux & Nav.-Ros, instead of *Polyblastia deminuta* Arnold  
*Mycobilimbia epixanthoides* (Nyl.) Vitik., Ahti, Kuusinen, Lommi & T. Ulvinen, instead of *Biatora epixanthoides* (Nyl.) Diederich  
*Mycobilimbia lurida* (Ach.) Hafellner & Türk, instead of *Psora lurida* (Ach.) DC.  
*Mycobilimbia pilularis* (Körb.) Hafellner & Türk, instead of *Biatora sphaeroides* (Dicks.) Körb.  
*Myxobilimbia accedens* (Arnold) Hafellner, instead of *Bacidia accedens* (Arnold) Lettau, considered as a synonym of *M. sabuletorum* in DIEDERICH & SÉRUSIAUX (2000: 127)  
*Myxobilimbia lobulata* (Sommerf.) Hafellner, instead of *Mycobilimbia lobulata* (Sommerf.) Hafellner  
*Myxobilimbia sabuletorum* (Schreb.) Hafellner, instead of *Mycobilimbia sabuletorum* (Schreb.) Hafellner  
*Myxophora leptogiophila* (G. Winter) Nik. Hoffm. & Hafellner, instead of *Cyanomyces leptogiophila* (G. Winter) Nik. Hoffm. & Hafellner comb. ined.

*Opegrapha niveoatra* (Borrer) J. R. Laundon is best treated as a distinct species, instead of a variety as *O. vulgata* var. *subsiderella* Nyl. (B. J. Coppins, pers. comm.)

*Physcia leptalea* (Ach.) DC. nom. cons., instead of *P. semipinnata* (J. F. Gmel.) Moberg

*Protopannaria pezizoides* (Weber) P. M. Jørg. & S. Ekman, instead of *Pannaria pezizoides* (Weber) Trev.

*Psoroglaena abscondita* (Coppins & Vězda) Hafellner & Türk, instead of *Macentina abscondita* Coppins & Vězda

*Tremella caloplacae* (Zahlbr.) Diederich, instead of *Lindauopsis caloplacae* Zahlbr.

### Number of species present in the area of study:

Number of species accepted by Diederich & Sérusiaux (2000)	1151
Number of species to be added	+68
Number of species to be deleted	-5
Number of species known in the area of study in 2003	1214

## ACKNOWLEDGMENTS

We wish to thank very warmly our colleagues and friends for the specimens made available to us, or for their help in identifying difficult collections: Prof./Dr A. Aptroot, M. Brand, O. Breuss, J. M. Cepeda, B. J. Coppins, J.-P. Duvivier, H. Hertel, O. Heylen, J. Lambinon, E. López de Silanes, G. Marson, B. Meyer, J. Miadlikowska, A. Orange, G. Samuels, L. Sparrius, A. Thell, R. Türk, D. Van den Broek and V. Wirth. The curators of BR, HBG, LG, LUX, MSC, STU, NY kindly allowed the study of specimens in their care. We also like to acknowledge the most precious help of Prof. J. Lambinon who carefully read the manuscript and made several valuable suggestions.

## REFERENCES

- ALSTRUP, V. & HAWKSWORTH, D. L., 1990. – The lichenicolous fungi of Greenland. *Meddel. Grønland, Biosci* **31**: 1-90.
- APTROOT, A., DIEDERICH, P., SÉRUSIAUX, E. & SIPMAN, H. J. M., 1997. – Lichens and lichenicolous fungi from New Guinea. *Biblioth. Lichenol.* **64**: 1-220.
- APTROOT, A. & SIPMAN, J. M., 2001. – New Hong Kong lichens, ascomycetes and lichenicolous fungi. *J. Hattori Bot. Lab.* **91**: 317-343.
- APTROOT, A., SIPMAN, H. J. M. & VAN HERK, C. M., 2001a. – *Cladonia monomorpha*, a neglected cup lichen from Europe. *Lichenologist* **33**: 271-283.
- APTROOT, A., SPARRIUS, L., VAN HERK, K. & DE BRUYN, U., 2001b. – Origin and distribution of recently described lichens from the Netherlands. *Akt. Lichenol. Mitt.* **5**: 13-25.
- APTROOT, A., VAN HERK, K., SPARRIUS, L. & VAN DEN BOOM, P., 1999. – Checklist van de Nederlandse lichenen en lichenicole fungi. *Buxbaumia* **50**: 4-64.

- BERGSTEN, J., 1999. – En för Sverige ny filltav, *Peltigera monticola*, och några andra noteringar om släktet *Peltigera*. *Svensk Botanisk Tidskrift* **93**: 279-285.
- BREUSS, O., 1998. – Drei neue holz- und borkenbewohnende *Verrucaria*-Arten mit einem Schlüssel der bisher bekannten Taxa. *Linzer Biol. Beitr.* **30**: 831-836.
- BRODO, I. M., SHARNOFF, S. D. & SHARNOFF, S., 2001. – Lichens of North America. Yale University Press, New Haven, 795 pp.
- CALATAYUD, V., ATIENZA, V. & BARRENO, E., 1995. – Lichenicolous fungi from the Iberian Peninsula and the Canary Islands. *Mycotaxon* **55**: 363-382.
- COLE, M. S. & HAWKSWORTH, D. L., 2001. – Lichenicolous fungi, mainly from the USA, including *Patriciomyces* gen. nov. *Mycotaxon* **77**: 305-338.
- COPPINS, B. J. & COPPINS, A. M., 2000. – *Pronectria pertusariicola* Lowen (1999). In: New, rare and interesting British lichen and lichenicolous fungus records. *Brit. Lichen Soc. Bull.* **86**: 53.
- COPPINS, B. J. & VAN DEN BOOM, P. P. G., 2002. – *Bacidia brandii*, a new lichen species from the Netherlands, Belgium, France and Lithuania. *Lichenologist* **34**: 327-332.
- DIEDERICH, P., 1986. – Macrolichens nouveaux ou intéressants pour la flore luxembourgeoise (2). *Bull. Soc. Nat. Luxemb.* **86**: 117-123.
- DIEDERICH, P., 1992. – New or interesting lichenicolous fungi. 2. *Taeniolella beschiana* sp. nov. and *Taeniolella serusiauxii* sp. nov. (Hyphomycetes). *Bull. Soc. Nat. Luxemb.* **93**: 155-162.
- DIEDERICH, P., 1996. – The lichenicolous heterobasidiomycetes. *Biblioth. Lichenol.* **61**: 1-198.
- DIEDERICH, P., 2003. – New species and new records of American lichenicolous fungi. *Herzogia* **16**: 41-90.
- DIEDERICH, P. & CHRISTIANSEN, M. S., 1994. – *Biatoropsis usnearum* Räsänen, and other heterobasidiomycetes on *Usnea*. *Lichenologist* **26**: 47-66.
- DIEDERICH, P., SCHULTHEIS, B. & BLACKWELL, M., 2003. – *Marchandiobasidium aurantiacum* gen. sp. nov., the teleomorph of *Marchandiomyces aurantiacus* (Basidiomycota, Ceratobasidiales). *Mycol. Res.* **107**: 523-527.
- DIEDERICH, P. & SÉRUSIAUX, E., 2000. – The lichens and lichenicolous fungi of Belgium and Luxembourg. An annotated checklist. Musée national d'histoire naturelle, Luxembourg, 207 pp.
- DIEDERICH, P. & SÉRUSIAUX, E., 2003. – *Stromatopogon cladoniae* sp. nova, a remarkable new lichenicolous coelomycete from Belgium. *Biblioth. Lichenol.* **86**: 103-106.
- DIEDERICH, P., SÉRUSIAUX, E. & VAN DEN BOOM, P., 1991. – Lichens et champignons lichénicoles nouveaux ou intéressants pour la flore de la Belgique et des régions voisines. V. *Lejeunia* N. S. **136**: 1-47.
- DIEDERICH, P., VAN DEN BOOM, P. & APTROOT, A., 2002 ('2001'). – *Cladonicola stauropora* gen. et sp. nov., a new lichenicolous coelomycete from Western Europe. *Belg. Journ. Bot.* **134**: 127-130.
- DÖBBELER, P., 1984. – Symbiosen zwischen Gallertalgen und Gallertpilzen der Gattung *Epigloea* (Ascomycetes). *Nova Hedwigia, Beih.* **79**: 203-239.
- DUVIGNEAUD, P. & GILTAY, L., 1938. – Catalogue des lichens de Belgique. *Bull. Soc. Roy. Bot. Belg.* **70** (suppl.): 1-52.
- EKMAN, S., 2001. – Molecular phylogeny of the Bacidiaceae (Lecanorales, lichenized Ascomycota). *Mycol. Res.* **105**: 783-797.

- EKMAN, S. & TØNSBERG, T., 2002. – Most species of *Lepraria* and *Leproloma* form a monophyletic group closely related to *Stereocaulon*. *Mycol. Res.* **106**: 1262-1276.
- ERTZ, D., 2003. – Les lichens et les champignons lichénicoles des affleurements rocheux calcaires du bassin mosan belge. Etude floristique et importance pour la conservation du patrimoine naturel. *Lejeunia* N. S. **172**: 1-57.
- ETAYO, J., 1996. – Aportación a la flora líquénica de las Islas Canarias. I. Hongos líquenícolas de Gomera. *Bull. Soc. Linn. Provence* **47**: 93-110.
- ETAYO, J., 1998. – Some hypocrealean lichenicolous fungi from Southwest Europe. *Nova Hedwigia* **67**: 499-509.
- ETAYO, J., 2001. – Hongos líquenícolas de Ecuador. I. Dos especies nuevas del orden Hypocreales (Ascomycota): *Pronectria parmotrematis* y *Trichonectria leptogiicola*. *Anales Jardín Bot. Madrid* **58**: 219-222.
- ETAYO, J., 2002. – Aportación al Conocimiento de los Hongos Líquenícolas de Colombia. *Biblioth. Lichenol.* **84**: 1-154.
- ETAYO, J. & BREUSS, O., 1998. – New species and interesting records of lichenicolous fungi. *Österr. Zeitschr. Pilzkunde* **7**: 203-213.
- FEUERER, T. & THELL, A., 2002. – *Parmelia ernstiae* – a new macrolichen from Germany. *Mitt. Inst. Allg. Bot. Hamburg* **30-32**: 49-60.
- FOX, H., 2000. – *Pronectria pertusariicola* Lowen (1999). In: New, rare and interesting British lichen and lichenicolous fungus records. *Brit. Lichen Soc. Bull.* **87**: 84.
- FRYDAY, A., 1996. – A provisional re-assessment of the non-yellow species of *Rhizocarpon* occurring in the British Isles. *Brit. Lichen Soc. Bull.* **78**: 29-40.
- FRYDAY, A. M. & COPPINS, B. J., 1996. – A new crustose *Stereocaulon* from the mountains of Scotland and Wales. *Lichenologist* **28**: 513-519.
- GEEBELEN, W. & HOFFMANN, M., 2001. – Evaluation of bio-indication methods using epiphytes by correlating with SO<sub>2</sub>-pollution parameters. *Lichenologist* **33**: 249-260.
- GRUBE, M. & HAFELLNER, J., 1990. – Studien an flechtenbewohnenden Pilzen der Sammelgattung *Didymella* (Ascomycetes, Dothideales). *Nova Hedwigia* **51**: 283-360.
- HAFELLNER, J., 1996. – Beiträge zu einem Prodromus der lichenicolen Pilze Österreichs und angrenzender Gebiete. II. Über einige in der Steiermark erstmals gefundene Arten. *Mitt. Naturwiss. Ver. Steiermark* **125**: 73-88.
- HAFELLNER, J., 1998. – *Polydesmia lichenis* – neu für Mitteleuropa. *Herzogia* **13**: 229.
- HAFELLNER, J., 1999. – Beiträge zu einem Prodromus der lichenicolen Pilze Österreichs und angrenzender Gebiete. IV. Drei neue Arten und weitere bemerkenswerte Funde hauptsächlich in der Steiermark. *Linzer Biol. Beitr.* **31**: 507-532.
- HAFELLNER, J. & TÜRK, R., 2001. – Die lichenisierten Pilze Österreichs – eine Checkliste der bisher nachgewiesenen Arten mit Verbreitungsangaben. *Stappia* **76**: 1-167.
- HAWKSWORTH, D. L., 1979. – The lichenicolous hyphomycetes. *Bull. Br. Mus. Nat. Hist., Bot.* **6**: 183-300.
- HAWKSWORTH, D. L., 1981. – The lichenicolous coelomycetes. *Bull. Br. Mus. Nat. Hist., Bot.* **9**: 1-98.
- HAWKSWORTH, D. L., 1983. – A key to the lichen-forming, parasitic, parasymbiotic and saprophytic fungi occurring on lichens in the British Isles. *Lichenologist* **15**: 1-44.

- HAWKSWORTH, D. L., 1986. – Notes on British lichenicolous fungi: V. *Notes RBG Edinb.* **43**: 497-519.
- HAWKSWORTH, D. L., 1990. – Notes on British lichenicolous fungi: VI. *Notes RBG Edinb.* **46**: 391-403.
- HAWKSWORTH, D. L. & COLE, M. S., 2002. – *Intralichen*, a new genus for lichenicolous ‘*Bispora*’ and ‘*Trimmatostroma*’ species. *Fungal Diversity* **11**: 87-97.
- HERTEL, H., 1995. – Schlüssel für die Arten der Flechtenfamilie Lecideaceae in Europa. *Biblioth. Lichenol.* **58**: 137-180.
- HUHTINEN, S. & SANTESSON, R., 1997. – A new lichenicolous species of *Polydesmia* (Leotiales: Hyaloscyphaceae). *Lichenologist* **29**: 205-208.
- KALB, K., LÜCKING, R. & SÉRUSIAUX, E., 2000. – Studies in *Bacidia* sensu lato (lichenized Ascomycetes: Lecanorales) I. The genus *Bapalmuia*. *Mycotaxon* **75**: 281-309.
- KOLTZ, J.-P.-J., 1897. – Prodrome de la flore du Grand-Duché de Luxembourg, seconde partie, deuxième volume. Lichénées. *Rec. Mém. Trav. Soc. Bot. G.-D. Luxemb.* **13**: 91-349.
- LAMBINON, J., DE LANGHE, J.-E., DELVOSALLE, L. & DUVIGNEAUD, J. (et coll.), 1998. – Flora van België, het Groothertogdom Luxemburg, Noord-Frankrijk en de aangrenzende gebieden (Pteridofyten en Spermatofyten); ed. 3. Nat. Plantentuin Belg., Meise, CXXIII + 1091 pp.
- LAUNDON, J. R., 2003. – The status of *Lecanora zosteræ* in the British Isles. *Lichenologist* **35**: 97-102.
- LAWREY, J. D. & DIEDERICH, P., 2003. – Lichenicolous fungi: interactions, evolution and biodiversity. *The Bryologist* **106**: 80-120.
- LEUCKERT, C., WIRTH, V., KÜMMERLING, H. & HEKLAU, M., 2002. – Chemische Flechtenanalysen XIII. *Lepraria eburnea*. *Herzogia* **15**: 19-25.
- LLIMONA, X. & HLADUN, N. L., 2001. – Checklist of the lichens and lichenicolous fungi of the Iberian Peninsula and Balearic Islands. *Bocconea* **14**: 5-581.
- LOWEN, R., 1989. – Two new species of *Nectriella* and an *Acremonium* anamorph. *Memoirs New York Bot. Garden* **49**: 243-252.
- MARBACH, B., 2000. – Corticole und lignicole Arten der Flechtengattung *Buellia* sensu lato in den Subtropen und Tropen. *Biblioth. Lichenol.* **74**: 1-384.
- MARTÍNEZ, I., BURGAZ, A. R. & VITIKAINEN, O., 1997. – Studies on the genus *Peltigera* in the Iberian Peninsula. II. *Nova Hedwigia* **64**: 367-391.
- MARTÍNEZ, I. & HAFELLNER, J., 1998. – Lichens and lichenicolous fungi on Peltigerales in the Iberian Peninsula and the Canary Islands. *Mycotaxon* **69**: 271-310.
- MATZER, M. & HAFELLNER, J., 1990. – Eine Revision der lichenicolen Arten der Sammelgattung *Rosellinia* (Ascomycetes). *Biblioth. Lichenol.* **37**: 1-138.
- MEYER, B., 2002. – Die Flechtengattung *Clauzadea*. *Sendtnera* **8**: 85-154.
- MIADLIKOWSKA, J. & ALSTRUP, V., 1995. – Some peltigericolous fungi and lichens mainly from Poland. *Graphis Scripta* **7**: 7-10.
- MOLINA, M. C., CRESPO, A., BLANCO, O., HLADUN, N. & HAWKSWORTH, D. L., 2002. – Molecular phylogeny and status of *Diploicia* and *Diplotomma*, with observations on *Diploicia subcanescens* and *Diplotomma rivas-martinezii*. *Lichenologist* **34**: 509-519.
- NAVARRO-ROSINÉS, P., 1992. – Els líquens i els fongs líquenicolos dels substrats carbonatats de Catalunya meridional. Doctoral thesis, University of Barcelona, 489 pp.

- NAVARRO-ROSINÉS, P. & HLADUN, N. L., 1996. – Les espèces saxicolo-calcícolas del grupo de *Caloplaca lactea* (Teloschistaceae, líquenes), en las regiones mediterránea y medioeuropea. *Bull. Soc. Linn. Provence* **47**: 139-166.
- NIMIS, P. L. & POELT, J., 1987. – The lichens and lichenicolous fungi of Sardinia (Italy), an annotated list. *Studia Geobot.* **7**, suppl. 1: 1-269.
- ORANGE, A., 2000. – *Verrucaria elaeina*, a misunderstood European lichen. *Lichenologist* **32**: 411-422.
- ORANGE, A., 2002. – Lichenicolous fungi on *Ionaspis lacustris*. *Mycotaxon* **81**: 265-279.
- PURVIS, O. W., COPPINS, B. J., HAWKSWORTH, D. L., JAMES, P. W. & MOORE, D. M., 1992. – The lichen flora of Great Britain and Ireland. Natural History Museum Publications, London, 710 pp.
- REDHEAD, S. A., LUTZONI, F., MONCALVO, J.-M. & VILGALYS, R., 2002. – Phylogeny of agarics: partial systematics solutions for core omphalinoid genera in the Agaricales (Euagarics). *Mycotaxon* **83**: 19-57.
- RIEDL, H., 1976. – Was ist *Lindauopsis* A. Zahlbruckner? *Sydowia, Ann. Mycol.* **28**: 166-170.
- ROSSMAN, A. Y., SAMUELS, G. J., ROGERSON, C. T. & LOWEN, R., 1999. – Genera of Bionectriaceae, Hypocreaceae and Nectriaceae (Hypocreales, Ascomycetes). *Studies in Mycology* **42**: 1-248.
- ROUX, C. & GUEIDAN, C., 2002. – Flore et végétation des lichens et champignons lichénicoles non lichénisés du massif de la Sainte-Baume (Var, Provence, France). *Bull. Soc. Linn. Provence* **53**: 123-150.
- ROUX, C., GUEIDAN, C. & NAVARRO-ROSINÉS, P., 2002. – La position systématique de *Polyblastia deminuta*. *Mycotaxon* **84**: 1-20.
- ROUX, C. & TRIEBEL, D., 1994. – Révision des espèces de *Stigmidium* et de *Sphaerellothecium* (champignons lichénicoles non lichénisés, Ascomycetes), correspondant à *Pharcidia epicymatia* sensu Keissler ou à *Stigmidium schaeferi* auct. *Bull. Soc. Linn. Provence* **45**: 451-542.
- SANTESSON, R., 1993. – The lichens and lichenicolous fungi of Sweden and Norway. SBT-förlaget, Lund, 240 pp.
- SANTESSON, R., 2001. – Fungi Lichenicoli Exsiccati. Fasc. 13 & 14 (Nos 301-350). *Thunbergia* **31**: 1-18.
- SÉRUSIAUX, E., 1984. – Les Pannariaceae s. l. (Lichens) en Belgique, au Grand-Duché de Luxembourg et dans les régions voisines. *Bull. Soc. Roy. Bot. Belg.* **117**: 80-88.
- SÉRUSIAUX, E., DIEDERICH, P., BRAND, A. M. & VAN DEN BOOM, P., 1999. – New or interesting lichens and lichenicolous fungi from Belgium and Luxembourg. VIII. *Lejeunia* N. S. **162**: 1-95.
- SÉRUSIAUX, E., COPPINS, B. J., DIEDERICH, P. & SCHEIDEGGER, C., 2001. – *Fellhanera gyrophorica*, a new European species with conspicuous pycnidia. *Lichenologist* **33**: 285-289.
- SIKAROODI, M., LAWREY, J. D., HAWKSWORTH, D. L. & DEPRIEST, P. T., 2001. – The phylogenetic position of selected lichenicolous fungi: *Hobsonia*, *Illosporium*, and *Marchandiomyces*. *Mycol. Res.* **105**: 453-460.
- SPARRIUS, L. B., DIEDERICH, P., SIGNORET, J. & SÉRUSIAUX, E., 2002. – The lichen flora of the Boulonnais (France, Pas-de-Calais). *Belg. Journ. Bot.* **135**: 50-75.

- STAIGER, B., 2002. – Die Flechtenfamilie Graphidaceae. Studien in Richtung einer natürlicheren Gliederung. *Biblioth. Lichenol.* **85**: 1-526.
- SUTTON, B. C., 1980. – The coelomycetes. Commonwealth Mycological Institute, Kew, 696 pp.
- TARGÉ, A. & LAMBINON, J., 1965. – Etude chimiotaxonomique du groupe de *Parmelia borrieri* (Sm.) Turner en Europe Occidentale. *Bull. Soc. Roy. Bot. Belg.* **98**: 295-306.
- THELL, A., 2003. – *Parmelia ernstiae* – new to the Nordic lichen flora. *Graphis Scripta* **14**: 10.
- THÜS, H., 2002. – Taxonomie, Verbreitung und Ökologie silicoler Süßwasserflechten im außeralpinen Mitteleuropa. *Biblioth. Lichenol.* **83**: 1-214.
- TØNSBERG, T., 2002. – Notes on non-corticolous *Lepraria* s. lat. in Norway. *Graphis Scripta* **14**: 45-51.
- TOUSSAINT, B., HENDOUX, F. & LAMBINON, J., 2002. – Définition et cartographie des territoires phytogéographiques de la région Nord/Pas-de-Calais (France). *Lejeunia* N. S. **171**: 1-39.
- TRETIACH, M. & HAFELLNER, J., 2000. – Lichens and lichenicolous fungi of Mt. Fleons (Carnic Alps, Italy) I. Epilithic and epigaeic species. *Herzogia* **14**: 99-111.
- TRIEBEL, D., RAMBOLD, G. & ELIX, J. A., 1995. – A conspectus of the genus *Phacopsis* (Lecanorales). *Bryologist* **98**: 71-83.
- VANBRUGGHE, M., VAN HALUWYN, C. & WATTEZ, J.-R., 2002. – Récolte de *Usnea articulata* (L.) Hoffm. dans le Pas-de-Calais (France). *Bull. Inform. Ass. Fr. Lichénologie* **27**: 35-37.
- VAN DEN BOOM, P. P. G., SÉRUSIAUX, E., DIEDERICH, P., BRAND, M., APTROOT, A. & SPIER, L., 1999. – A lichenological excursion in May 1997 near Han-sur-Lesse and Saint-Hubert, with notes on rare or critical taxa of the flora of Belgium and Luxembourg. *Lejeunia* N. S. **158**: 1-58.
- VAN DEN BOOM, P. P. G. & COPPINS, B. J., 2001. – *Micarea viridileprosa* sp. nov., an overlooked lichen species from Western Europe. *Lichenologist* **33**: 87-91.
- VAN DEN BROEK, D., 2003. – Waar men gaat langs Vlaamse wegen komt zelfs een beginner veel lichenen tegen. Een onderzoek van tien Vlaamse kerkhoven. *Muscillanea* **22**: 11-20.
- VAN HERK, K. & APTROOT, A., 2000. – The sorediate *Punctelia* species with lecanoric acid in Europe. *Lichenologist* **32**: 233-246.
- VAN HERK, C. M. & APTROOT, A., 2003. – A new status for the Western European taxa of the *Cladonia cervicornis* group. *Biblioth. Lichenol.* **86**: 193-204.
- VITIKAINEN, O., 1994. – Taxonomic revision of *Peltigera* (lichenized Ascomycotina) in Europe. *Acta Botanica Fennica* **152**: 1-96.
- WIRTH, V. & HEIBEL, E., 1998. – Einige Flechtenfunde aus der Eifel. *Akt. Lichenol. Mitt.* **16**: 16-22.
- WITTMANN, H. & TÜRK, R., 1994. – Flechten und Flechtenparasiten der Ostalpen II. *Ber. Bayer. Bot. Ges.* **64**: 189-204.
- ZAHLBRUCKNER, A., 1906. – *Lindauopsis*, ein neuer Flechtenparasit. *Ber. Deutsch. Bot. Ges.* **24**: 141-146.
- ZEDDA, L., 2000. – *Lecanora leuckertiana* sp. nov. (lichenized Ascomycetes, Lecanorales) from Italy, Greece, Morocco and Spain. *Nova Hedwigia* **71**: 107-112.