

THE LICHEN FLORA OF THE BOULONNAIS (FRANCE, PAS-DE-CALAIS)

L. B. SPARRIUS<sup>1</sup>, P. DIEDERICH<sup>2\*</sup>, J. SIGNORET<sup>3</sup> and E. SÉRUSIAUX<sup>4</sup>

<sup>1</sup> Kongsbergstraat 1, NL-2804 XV Gouda, Netherlands (sparrius@dds.nl) ;

<sup>2</sup> Musée national d'histoire naturelle, 25 rue Munster, L-2160 Luxembourg, Luxembourg (paul.diederich@ci.educ.lu) ; <sup>3</sup> Laboratoire de Phytoécologie, UPRES-EBSE, Université de Metz, Campus Bridoux, avenue du Général Delestraint, F-57070 Metz, France (j\_signoret@hotmail.com) ;

<sup>4</sup> Dept. of Life Sciences, University of Liège, Sart Tilman B22, B-4000 Liège, Belgium (E.Serusiaux@ulg.ac.be)

(\* Correspondence author ; P. Diederich)

**ABSTRACT.** — This paper presents a survey of the lichen flora of the Boulonnais (France, dépt. Pas-de-Calais). A total of 278 taxa are accepted, including 25 lichenicolous fungi and 3 non lichenized species. The area covered by the checklist of lichens and lichenicolous fungi of Belgium, Luxembourg and N France is enlarged to include also the Boulonnais area. The following species are additions to the checklist : *Bacidia laurocerasi*, *Caloplaca cerinelloides*, *C. marina*, *C. microthallina*, *C. thallincola*, *Chrysothrix flavovirens*, *Cliostomum flavidulum*, *Cryptolechia carneolutes*, *Didymellopsis collematum*, *Gyalidea minuta*, *Lecania atrynoides*, *Lecanora jamesii*, *Lichina confinis*, *Mycomicrothelia confusa*, *Opegrapha sorediifera*, *Verrucaria erichsenii*, *V. halizoa*, *V. maura* and *V. sandstedei*. The author citation of the name *Caloplaca maritima* is discussed.

**KEY WORDS.** — Checklist, Lichens, Lichenicolous fungi, France, Boulonnais.

**RÉSUMÉ.** — Le présent article donne un aperçu de la flore lichénique du Boulonnais (France, dépt. Pas-de-Calais). Un total de 278 taxons est accepté, parmi lesquels 25 espèces de champignons lichénicoles et 3 espèces non lichénisées. Le territoire couvert par la checklist des lichens de Belgique, du Luxembourg et du nord de la France est étendu pour comprendre également le Boulonnais. Les espèces suivantes sont ajoutées à cette liste : *Bacidia laurocerasi*, *Caloplaca cerinelloides*, *C. marina*, *C. microthallina*, *C. thallincola*, *Chrysothrix flavovirens*, *Cliostomum flavidulum*, *Cryptolechia carneolutes*, *Didymellopsis collematum*, *Gyalidea minuta*, *Lecania atrynoides*, *Lecanora jamesii*, *Lichina confinis*, *Mycomicrothelia confusa*, *O. sorediifera*, *Verrucaria erichsenii*, *V. halizoa*, *V. maura* et *V. sandstedei*. La citation des auteurs du nom *Caloplaca maritima* est discutée.

INTRODUCTION

The lichen flora of the Boulonnais district in NW France has been studied for many years, but nevertheless remains a fascinating subject of

study. Indeed, two recent collecting trips by Laurens Sparrius (in 1999) and Paul Diederich & Jonathan Signoret (in 2000) yielded several interesting species not previously recorded in the area (e. g. by VAN HALUWYN 1990). It was thus



decided to reassess this lichen flora and to go back to earlier collections, especially those made in the sixties and the seventies by Maarten Brand, Jacques Lambinon and Emmanuël Sérusiaux. This paper is a summary of the species encountered in all those collections and points to the most interesting findings.

#### HISTORY OF THE LICHENOLOGICAL EXPLORATION OF THE BOULONNAIS

The lichen flora of the Boulonnais, and especially the coastal flora, has been studied from the 1830's onwards (BOREL 1964). The first known herbarium specimen from the study area, '*Opegrapha murorum*' from cap Blanc-Nez, was published in the 'Exsiccata de Plantis Cryptogamis' by Desmazières (BOREL 1964). BOULAY (1878-1880) published an exsiccata of saxicolous lichens from the Boulonnais.

Bouly de Lesdain, who meticulously explored the lichen flora around Dunkerque (BOULY DE LESDAIN 1910, 1914), published in 1920 an important paper on the lichen flora of the dépt. Pas-de-Calais (BOULY DE LESDAIN 1920). He reported c. 100 species and many more infraspecific taxa, including four new to science: *Allarthonia lapidicola* var. *macrocarpa* B. de Lesd., *Chiodecton* (*Enterographa*) *crassum* f. *rufescens* B. de Lesd., *Lecanora effusa* f. *lobata* B. de Lesd., and *Ramalina farinacea* var. *reagens* B. de Lesd. As most of his collections were unfortunately destroyed in 1940, after the bombardment of his house in Dunkerque, it is often difficult to understand which taxa BOULY DE LESDAIN was dealing with, and we did not attempt therefore to interpret some of his results.

In his *Monographia Crocyniarum*, HUE (1924) described two new species of *Crocynia* from the Boulonnais: *Crocynia superba* Hue from Saint-Léonard near Boulogne (p. 325), and *Crocynia muricola* Hue from walls in Boulogne (p. 370); as far as we know, the types of these two names have never been re-examined. A paratype of *Crocynia lesdaii* Hue (= *Botryolepraria lesdaii*) was collected in Saint-Léonard near Boulogne (p. 351).

BOREL (1952) gave a description of the littoral lichen vegetation of the Boulonnais, together with details on the *Lichina confinis* population. Some other abundant lichens are mentioned, e.g. *Buellia epipolia* (as *Rhizocarpon alboatrum* var. *epipolium*), *Caloplaca maritima*, *Pyrenocollema halodytes* (as *Arthopyrenia halodytes*), *Rinodina gennarii* (as *Rhinodina salina*), *Solenopsora candicans* (as *Diphrotora candicans*) and *Verrucaria maura*.

BOREL (1964) presented a detailed historical account of the lichenological exploration of northern France (dépts Nord and Pas-de-Calais), together with a more general survey of its lichen flora.

Barkman visited the coastal region of northern France and Belgium in 1954 by bicycle, in order to study its epiphytic lichen and bryophyte flora. He published a most interesting summary of his results in 1990.

Starting in 1960, Maarten Brand, Jacques Lambinon and Emmanuël Sérusiaux collected lichens several times in the Boulonnais, but almost nothing has been published about their results, except a report on a botanical field trip, in which Lambinon (1974) mentions a few terricolous and epiphytic lichens. Most of their discoveries are presented in the present paper.

In 1973, DELZENNE-VAN HALUWYN (1973a) presented a doctoral thesis on the epiphytic lichens of northern France. She presented very detailed distribution maps of over 30 selected species – mainly macrolichens – and studied the atmospheric pollution using the different distribution patterns obtained. A summary of the results was published by DELZENNE-VAN HALUWYN (1973b).

In 1989, an excursion organized by the Association Française de Lichénologie and guided by Chantal Van Haluwyn, resulted in an extensive study of the Boulonnais lichen flora, of which the results were published by VAN HALUWYN (1990).

VAN HALUWYN *et al.* (1995) presented records of soil crusts growing on metal-polluted sites in northern France. From the Boulonnais dunes, they mentioned *Diploschistes muscorum* and several *Cladonia* species.



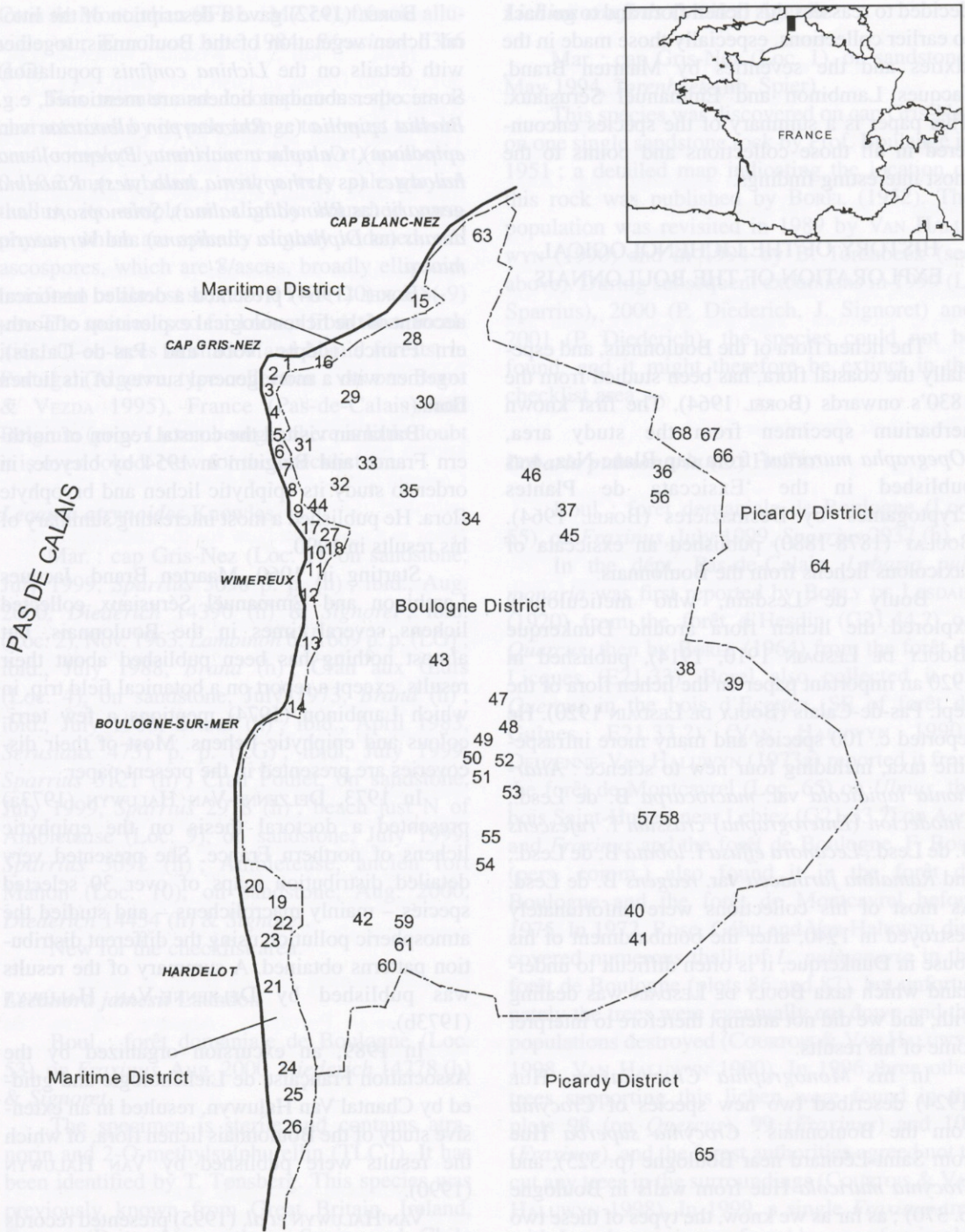


Fig. 1. — Map of the study area, indicating the phytogeographical districts, locality numbers and some major localities.



COURTOIS & VAN HALUWYN (1998) provided details on three sites with *Lobaria pulmonaria*, recently rediscovered in the forêt de Boulogne. All sites are on steep slopes in forests of about 80 years old.

Recently, the Boulonnais lichen flora was carefully investigated by Laurens Sparrius in 1999, followed by Paul DIEDERICH and Jonathan Signoret in 2000, and the results stimulated the authors to publish the present paper.

#### HABITAT DESCRIPTIONS

The area dealt with in this paper is mainly the Boulogne district ('het Boulogne-district') mentioned in the 'Flora van België, het Groothertogdom Luxemburg, Noord-Frankrijk en de aangrenzende gebieden' (LAMBINON *et al.* 1998), but further includes a part of the maritime district ('het Maritiem district') and the most north-western parts of the Picardy district ('het Picardisch district'). The delimitation of those districts is strictly that of LAMBINON *et al.* (1998), although we are aware that it is currently under revision by the authors of this flora.

Habitats sampled for their lichen flora are briefly described below. Relevant information has been borrowed from BASSO & SEYTRE (1997), LAMBINON (1974), unpublished but most valuable reports obtained from the 'Centre Régional de Phytosociologie – Conservatoire Botanique National de Bailleul' (through the courtesy of Mr Renaud Ward), and the personal experience of the authors.

#### **Maritime district – Sea cliffs and artificial saxicolous habitats by the sea-shore (hereafter : MAR Rocks)**

The sea cliff of the cap Blanc-Nez is made of chalk belonging to the upper Cretaceous period and reaches its highest point at 132 m. It is constantly eroded and submitted to sea sprays. It is devoid of any lichen flora and its vegetation is highly characterized by *Brassica oleracea*.

The sea cliffs of the cap Gris-Nez and others just south of it are not as high (summit at 50 m) ; they belong to the Jurassic period and are made of

compact sand, marl, schistose clay and include impressive lenticular boulders of sandstone, several of which lying at the base of the cliffs (especially at the Cran aux Œufs). Several plant communities can be distinguished, some with a high patrimonial value (for example the community with *Crithmum maritimum* and *Limonium binervosum* at the pointe du Riden). The dominant one in all localities is short grassland dominated by *Festuca rubra* subsp. *pruinosa*, *Armeria maritima*, *Matricaria maritima* and *Silene vulgaris* subsp. *maritima*. On top of the sandstone boulders, the grassland is discontinuous and characterized by *Trifolium scabrum*, *Catapodium marinum* and *Sagina maritima*. Bare surfaces of sandstone within this vegetation have a rich lichen flora made of saxicolous and terricolous species with a strongly nitrophilous facies, especially where sea birds (mainly *Larus* species) enjoy perching. Typical species of this lichen community are : *Buellia alboatra*, *B. epipolia*, an impressive list of *Caloplaca* (*albolutescens*, *citrina*, *coronata*, *crenulatella*, *decepiens*, *flavescens*, *flavocitrina*, *flavovirescens*, *maritima*, *microthallina*, *phlogina*, *saxicola* and *thallincola*), *Collema tenax* (on soil), *Lecania atrynoides*, *L. erysibe*, *Lecanora albescens*, the poorly understood species complex referred to as *L. crenulata*, *L. dispersa*, *Rinodina gennarii* and *Solenopsora candicans*. The best stands also have the terricolous *Placidium squamulosum* and the saxicolous *Placopyrenium trachyticum*. Nice populations of *Opegrapha* could be referred to at least two taxa, and are temporarily identified as *O. calcarea* and *O. saxatilis* s. l.

Fresh water springs allow the development of small marshes with *Apium graveolens*, *Carex distans*, *Pulicaria dysenterica*, *Samolus valerandi* and *Triglochin palustre*. No lichens could be detected in this community but a typical bryophytes-dominated vegetation can be locally observed, and is dominated by *Cratoneuron filicinum*.

The sea cliff of the cap Gris-Nez is the only locality in the area dealt with in this paper where the so typical lichen zonation on rocky sea-shores (FLETCHER 1973a & b, GILBERT 2000) is developed, although very poorly (see BOREL 1952 for further details). Indeed, the population of *Lichina*



*confinis* at sea-level is very reduced and on the verge of extinction, and *Caloplaca marina* has not been observed during our recent visits. Several species of *Verrucaria* restricted to sea-shores (the so-called 'littoral zone') are nevertheless found, sometimes with rather healthy populations: *V. erichsenii*, *V. halizoa*, *V. maura* and *V. sandstedei*. Furthermore *Pyrenocollema halodytes* s. l. is common either on rocks (incl. artificial sea walls) or on barnacles.

### Maritime district – Dunes complex (hereafter : MAR Dunes)

The dune complex in the maritime district represents a further important habitat for lichens. Two main vegetation types are essential for them: the slightly to strongly decalcified and rather stable sand dunes (forming the so-called 'dunes grises'), and the bushes, which form the ultimate stage of the vegetation series on sandy substrates.

The so-called 'dunes grises' (grey dunes) are characterized by the abundance of the moss *Tortula ruraliformis* which strongly contributes to sand stabilization, and by the typical grass *Corynephorus canescens* together with *Viola curtisii*. They belong to the *Phleo-Tortuletum ruraliformis* Br.-Blanquet & De Leeuw in their early stages, and to the *Violo-Corynephorum canescens* Westhoff when fully developed. Extensive mats of *Cladonia* can cover the sand over large surfaces in such conditions, and although rather species-poor, this forms a major habitat for lichens in the region. *Cladonia foliacea*, *C. furcata*, *C. rangiformis* and *Peltigera rufescens* are the most common species to be found. Several common epiphytes occasionally occur on the ground: KEIZER (1980) found *Ramalina fastigiata* at several places on dune sand north of Wissant; in 1999, *Evernia prunastri*, *Ramalina farinacea*, *Hypogymnia physodes* and *H. tubulosa* were found by the first author in the dunes near Wissant in vegetations dominated by *Cladonia foliacea*.

Bushes that finally colonize the dunes, both in dry stands and along rivulets or rivers or at the edges of marshes, usually form inextricable thickets. Species common on rather dry sand include *Betula pubescens*, *Crataegus monogyna*,

*Hippophae rhamnoides*, *Ligustrum vulgare*, *Sambucus nigra* (with their old branches almost always invaded by *Hirneola auricula-judae*) and *Ulex europaeus*, and those on humid sand or clay include species of *Salix* (including *Salix repens* subsp. *dunensis*) and *Populus tremula*. The typical corticolous community on branches and trunks in the dunes includes *Buellia punctata*, species of *Candelariella*, *Cliostomum griffithii*, *Lecanora chlarotera*, *L. symmicta*, *Lecidella elaeochroma* (incl. f. *soralifera*), *Parmelia sulcata* and *Xanthoria parietina*; a facies with exuberant *Evernia prunastri* and three species of *Ramalina* (*farinacea*, *fastigiata* and *fraxinea*) is usually present. Interesting species found in this habitat include *Caloplaca cerinelloides* (on *Sambucus* twigs), *Opegrapha ochrocheila* and *Psoroglaena stigonemoides*.

Small woods, with trees such as *Quercus* and *Populus*, within the dune complexes may be of artificial origin, but nevertheless yielded several interesting species: *Anisomeridium biforme*, *Mycomicrothelia confusa* and *Normandina acroglypta*.

*Pinus* plantations in the dunes yielded two interesting corticolous species: *Chrysothrix flavovirens* and the recently described and probably widespread *Micarea viridileprosa* (VAN DEN BOOM & COPPINS 2001).

The dunes have been greatly altered during World War II (especially for the building of the defence system along the coasts), and are also heavily planted with introduced *Pinus*. Major holidays settlements (either camping or small cottages) are also responsible for severe regression of their surface and eutrophication.

A single but most important site for biodiversity conservation in the area is the so-called 'Le Communal' (E of Ambleteuse). Indeed, it consists of a rather large fossil dune complex; it hosts a well-developed heathland on sand with early stages of colonization by mosses such as *Ceratodon purpureus* and *Polytrichum juniperinum* together with macrolichens (see list below), and typical grassland dominated by *Corynephorus canescens* or *Festuca filiformis* and typical *Callunetum* (with *Carex trinervis* in more humid places). Dense thickets of *Ulex europaeus* are also



common. On dry and acid sand, impressive mats of macrolichens include *Cetraria aculeata*, *Cladonia arbuscula* subsp. *squarrosa*, *C. ciliata*, *C. portentosa*, *Cladonia foliacea*, *C. furcata*, *C. grayi* s. l., *C. ramulosa*, *C. rangiformis*, *C. uncialis* subsp. *biuncialis*, *Peltigera hymenina*, *P. membranacea* and *P. rufescens*.

#### **Boulogne district – Isolated trees and artificial substrates (hereafter : BOUL Rural)**

Habitats dealt with in this section include isolated trees (mainly along roads) and artificial substrates, such as walls, graveyards, churches, fence posts, within the Boulogne district. A major factor affecting the species growing on isolated trees is the almost complete disappearance of *Ulmus* boles due to the *Ceratocystis* disease ; their lichen flora was spectacular (see BAILEY *et al.* 1974). Species like *Cryptolechia carneolutea* and *Ramalina lacera* had their ultimate populations on such trees and have not been seen for more than twenty years. Interesting bryophytes have also been reported from such trees, e. g. *Leptodon smithii* (WATTEZ 1979).

#### **Boulogne district – Ruderal habitats near limestone quarries (hereafter : BOUL Quarries)**

Ruderal habitats at the edges of large limestone (of Palaeozoic origin) quarries in the district have been explored and yielded several species not found elsewhere : *Acrocordia conoidea*, *Botryolepraria lesdainii*, *Caloplaca chrysodeta* and *Gyalecta jenensis*.

#### **Boulogne district – Forests (hereafter : BOUL Forests)**

The forests of the Boulogne district are developed over sand, clay or marl belonging to the upper Jurassic ; chalk outcrops are local and belong to the lower Cretaceous. Four forests are assigned to this group and have been sampled for their epiphytic lichen flora : the forêt de Boulogne, the forêt de Desvres, the forêt

d'Hardelot and the bois de Fiennes. Two main vegetation types can easily be recognized : the neutrophilous *Quercus-Fraxinus-Carpinus* woodland, with a nice and extensive field-layer flowering in early spring, usually dominated by *Hyacinthoides non-scripta*, and the widespread, much more humid *Quercus-Fraxinus-Alnus* woodland with the field-layer invaded by *Carex pendula* or *Carex remota*. These forest communities are detailed by BASSO & SEYTRE (1997).

All are heavily disturbed and no stand can be described as old-growth forest. Most of them are heavily coppiced and old tree boles are rare and not sufficiently sun-exposed to develop a rich lichen flora. These features explain the rather poor epiphytic lichen flora and the decrease of *Lobarion* communities in the last decades (see BAILEY *et al.* 1974, LEROND 1977).

Two main lichen communities can be distinguished in these forests. The first one develops on young and rather smooth bark and persists on the 'plateaux' of older trees with fissured bark ; it includes species of *Arthonia*, *Buellia griseovirens*, *Cliostomum griffithii*, both species of *Graphis* (*elegans* and *scripta*), *Pyrenula chlorospila*, and the sometimes dominant *Enterographa crassa*. The second is developed on older bark (either on branches or on boles) and is characterized by the macrolichens *Flavoparmelia caperata*, *Hypotrachyna revoluta* and *Parmotrema chinense* ; it has been thoroughly studied by DELZENNE & GÉHU (1978).

The most interesting species found in these forests are *Cliostomum flavidulum*, *Graphina anguina*, *Gyalidea minuta* (a very inconspicuous species), *Lecanora jamesii*, *Opegrapha soredifera*, and two species of *Phaeographis* (*inusta* and *smithii*), the latter unfortunately not seen since 1954.

#### **Boulogne district – Grasslands on chalk (hereafter : BOUL grasslands)**

The grasslands at the top of the cliff of the cap Blanc-Nez (see above) have no species restricted to maritime habitats and thus cannot be assigned to the maritime district. They belong to



the *Mesobromion* and form the typical *Succiso-Brachypodietum* Géhu, which is also found on all chalk cliffs in Southern England. The most interesting phanerogams include *Blackstonia perfoliata*, *Gentianella amarella*, *G. germanica*, *Festuca hirtula*, *Thymus praecox* subsp. *ligusticus* and several orchids. Some facies are colonized by *Juniperus communis*. Lichens are rare and restricted to pebbles on the ground (interesting species include *Clauzadea metzleri* and *Protoblastenia rupestris*) but old military concrete bunkers provide a suitable substrate for several common species. Similar grasslands can be found elsewhere, especially along the cuesta of the 'Haut-Boulonnais'. None were sampled during this study.

#### Picardy district – Isolated trees and artificial substrates (hereafter : PIC Rural)

A single locality is included in this section, with isolated *Tilia* in a village of the Picardy district.

#### Picardy district – Forests (hereafter : PIC Forests)

These forests are developed over clayish soils rich in silex, derived from chalk of the upper Cretaceous. *Fagus* is maintained through adequate forestry practice, but most of the woodland belongs to the neutrophilous *Quercus-Fraxinus-Carpinus* community, which also occurs in the Boulogne district on the drier soils. Two forests of this type have been sampled : the forêt de Guînes and the forêt de Montcavrel. The intensive exploitation also explains the poor epiphytic lichen flora and the absence of *Lobarion* communities.

The forêt de Guînes has nice populations of fruiting *Pyrrhospora querneae* and *Pyrenula chlorospila*, while the forêt de Montcavrel has trees covered with impressive festoons of *Usnea ceratina* and is the only locality where *Pachyphiale carneola* has been found in the area dealt with in this paper.

#### LOCALITY LIST

- | France, département Pas-de-Calais |   |
|-----------------------------------|---|
| MAR                               | MARITIME DISTRICT   |
| Rocks                             | Maritime Rocks  |
| Gris-Nez                          | Cap Gris-Nez (incl. the 'Cran aux Œufs')  |
| 1                                 | Cap Gris-Nez, N part, large sandstone boulders on beach, and W of beach, IFBL : E22.15, Lamb1 : 547.4/1352.7, alt. 0-40 m (Nov. 1963, <i>J. Lambinon</i> ; July 1973, <i>M. Brand</i> ; Aug. 1973, <i>E. Sérusiaux</i> ; 1981, <i>P. Diederich</i> ; July 1988, <i>M. Brand</i> ; May 1989, VAN HALUWYN (1990) ; May 1994, <i>B. Torenbek</i> [specimens in hb. Spier] ; July 1999, <i>L. Sparrius</i> ; Aug. 2000, <i>P. Diederich</i> & <i>J. Signoret</i> ). |
| 2                                 | Cap Gris-Nez, W part, sandstone rocks, IFBL : E22.14, Lamb1 : 546.8/1352.3, alt. 0-25 m (Nov. 1963, <i>J. Lambinon</i> ; July 1988, <i>M. Brand</i> ; July 1999, <i>L. Sparrius</i> ).  |
| 3                                 | N of Cran aux Œufs, Pointe du Riden, IFBL : E22.14 (Oct. 1973, <i>E. Sérusiaux</i> ).   |
| 4                                 | Cran aux Œufs, rocky seashore cliff with sandstone rock, IFBL : E22.14, Lamb1 : 547.0/1350.1, alt. 0-40 m (July 1973, <i>M. Brand</i> ; April 1983, <i>E. Sérusiaux</i> ; July 1988, <i>M. Brand</i> ; July 1999, <i>L. Sparrius</i> ).   |
| 5                                 | Cran aux Œufs, top of cliff near village, on <i>Lycium barbarum</i> on edge of cliff, IFBL : E22.14, Lamb1 : 546.9/1350.3 (June & July 2001, <i>P. Diederich</i> ).   |
| Poulet                            | Cran Poulet (between cap Gris-Nez and Audresselles)   |
| 6                                 | Cran Poulet, large cross on top of slope, concrete basis of monument ; debris of <i>Armeria</i> on edge of cliff, IFBL : E22.24, Lamb1 : 547.1/1349.5 (July 1999, <i>L. Sparrius</i> ).   |
| 7                                 | Cran Poulet, N of road, supralittoral sandstone boulders, debris of <i>Armeria</i> on edge of cliff, IFBL : E22.24, Lamb1 : 547.0/1349.2-1349.8, alt. 0-30 m (July 1991, <i>M. Brand</i> ; July 1999, <i>L. Sparrius</i> ).   |
| NidCorbet                         | Pointe du Nid de Corbet (N of Audresselles)   |
| 8                                 | Cran du Noirda, just S of pointe du Nid de Corbet, cliff coast with large sandstone boulders  |



- ders on beach, IFBL : E22.25, Lamb1 : 547.4/1348.1, alt. 10 m (July 1999, *L. Sparrius*).
- Ambleteuse**
- 9 Beach and dunes just N of Ambleteuse, sandstone boulders on beach, remains of concrete shelters in dunes, IFBL : E22.25, Lamb1 : 547.9/1346.1, alt. 5 m (July 1999, *L. Sparrius*).
- 10 Ambleteuse, ancien fort Mahon, wall of fortification and sandstone boulders on beach, IFBL : E22.35, Lamb1 : 548.1/1345.5, alt. 0-5 m (Aug. 2000, *P. Diederich & J. Signoret*).
- Oies**                    **Pointe aux Oies**
- 11 Between Ambleteuse and Wimereux, 600 m N of pointe aux Oies, W of parking lot, sandstone blocks on beach, IFBL : E22.35, Lamb1 : 548.5/1344.0, alt. 0-5 m (Aug. 2000, *P. Diederich & J. Signoret*).
- 12 Wimereux, pointe aux Oies, sandstone blocks on beach, IFBL : E22.35, Lamb1 : 548.2/1343.1, alt. 20 m (July 1999, *L. Sparrius*).
- Wimereux**
- 13 Wimereux, béton sur falaise maritime près du laboratoire, IFBL : E22.45 (June 1986, *V. Demoulin*).
- Boulogne**
- 14 Boulogne-sur-Mer, pierres de la digue nord du port, au-dessus des *Fucus* et *Enteromorpha*, IFBL : E22.44 (Nov. 1963, *J. Lambinon*).
- Dunes**                    **Maritime Dunes**
- 15 NE of Wissant, dune d'Amont, open dunes, *Evonymus* and *Hippophae* shrubs, concrete of remains of shelters, IFBL : D22.56, Lamb1 : 553.3-554/1355-1355.5, alt. 25-30 m (July 1969, *M. Brand*; July 1991, *M. Brand*; May 1994, *J. L. Spier*; July 1999, *L. Sparrius*).
- 16 Between Wissant and cap Gris-Nez, dune du Châtelet, sand dunes with *Hippophae* shrubs, IFBL : E22.15, Lamb1 : 549.0/1352.7, alt. 5 m (Oct. 1978, *E. Sérusiaux*; July 1991, *M. Brand*; 23 July 1999, *L. Sparrius*).
- 17 Dunes just N of Ambleteuse, *Sambucus* shrubs in calcareous dunes, IFBL : E22.25, Lamb1 : 547.9/1346.2, alt. 25 m (July 1991, *M. Brand*; 27 July 1999, *L. Sparrius*).
- 18 S of Ambleteuse, NW of dunes de la Slack, open dunes, pebbles on beach and in marshland, IFBL : E22.35, Lamb1 : 548.3-548.8/1345.3, alt. 0-5 m (July 1973, *M. Brand*; July 1988, *M. Brand*; Oct. 1988, *E. Sérusiaux*; July 1991, *M. Brand*; July 1999, *L. Sparrius*; 5 June 2000, *P. Diederich*).
- 19 S of Boulogne, SW of Écault, dunes with *Sambucus* shrubs, IFBL : F22.24, 1°35'E/50°39'N (July 1969, *M. Brand*; July 1973, *M. Brand*).
- 20 7 km S of Boulogne, S of Equihen, dunes, IFBL : F22.24, 1°34'E/50°39'N (July 1991, *M. Brand*).
- 21 Hardelot, IFBL : F22.24, lisière du bois des dunes (Nov. 1963, *J. Lambinon*); wooded dunes, (May 1989, VAN HALUWYN (1990)).
- 22 1,3 km S of Écault, S and N of parking lot W of road D 119, dunes with *Pinus* (near parking lot) and *Betula*, *Fraxinus*, *Quercus*, etc. N of parking lot, IFBL : F22.25, Lamb1 : 548.5/1328.7, alt. 65 m (Aug. 2000, *P. Diederich & J. Signoret*).
- 23 N of Hardelot-Plage, *Salix cinerea* in duneslack, IFBL : F22.24, 1°34'E/50°38'N (July 1973, *M. Brand*).
- 24 Dannes, massif du mont Saint-Frieux, chemin vers le sommet, pelouses bryolichéniques en bordure de plantation de *Pinus*, sur sable peu décalcifié, IFBL : F22.35, alt. 100 m (Febr. 2001, *E. Sérusiaux*).
- 25 Dannes, dunes de Dannes, pelouse fixée des dunes, sur le sable, IFBL : F22.44 (June 1960, *J. Lambinon*).
- 26 Le Touquet, estuaire de la Canche, rive droite, fourrés dunaux, sur bois d'un abri de chasse, IFBL : F22.55 (Oct. 1988, *E. Sérusiaux*).
- 27 E of Ambleteuse, along road from Raventhun to Slack, Le Communal, heathland (acid ancient dunes) with *Ulex europaeus*, IFBL : E22.25, Lamb1 : 549.3-550.1/1345.8-1346.4, alt. 30-35 m (June 1973, LAMBINON (1974 : 20); Oct. 1988, *E. Sérusiaux*; May 1989, VAN HALUWYN (1990); July 1999, *L.*



*Sparrius*; Aug. 2000, P. Diederich & J. Signoret).

## BOULOGNE DISTRICT

### Rural Boulogne Rural Localities

- 28 Wissant, chapel along road in village, three *Acer* trees near chapel, IFBL : E22.16, Lamb1 : 552.8/1354.2, alt. 30 m (25 July 1999, *L. Sparrius*).
- 29 SW of Wissant, S of Tardinghen, N of Le Hamel, along stream W of the road, concrete posts of bridge, wooden fence posts along field, *Acer campestre*, *Alnus*, *Fraxinus* and *Salix* along stream, a very old *Malus*, IFBL : E22.15, Lamb1 : 550.2/1351.2, alt. 30 m (Aug. 2000, P. Diederich & J. Signoret).
- 30 3 km S of Wissant, Warcove, old *Ulmus* in bush near farm, IFBL : E22.16, 1°40'E/50°50'N (July 1973, *M. Brand*).
- 31 Bois d'Haringzelle (between cap Gris-Nez and Audresselles), forest with *Quercus*, *Fraxinus*, *Fagus*, *Ulmus*, *Carpinus*, etc., and W of the forest, small sandstone wall N of track, wall made of slightly calcareous sandstone rock, IFBL : E22.25, Lamb1 : 547.9/1349.3, alt. 50 m (July 1999, *L. Sparrius*).
- 32 E of Ambleteuse, just N of Raventhun, wall along road to Onglevert, wall made of calcareous sandstone, *Salix* along small stream, IFBL : E22.25, Lamb1 : 550.1/1347.5, alt. 65 m (July 1999, *L. Sparrius*).
- 33 E of Ambleteuse, N of Raventhun, Ferquent, *Crataegus* and *Sambucus* shrubs, old *Fraxinus*, wooden and concrete fence-posts, IFBL : E22.25, Lamb1 : 550.9/1348.1-1348.5, alt. 75-100 m (July-Aug. 1999, *L. Sparrius*).
- 34 Marquise, church in center of village, church walls of calcareous sandstone, old *Aesculus* and *Tilia*, IFBL : E22.27, Lamb1 : 555.5/1346.0, alt. 25 m (31 July 1999, *L. Sparrius*).
- 35 NW of Marquise, Bazinghen, church and churchyard, church walls of calcareous sandstone, rock gravestones of hard limestone, IFBL : E22.26, Lamb1 : 552.3/1347.6, alt. 80 m (July 1999, *L. Sparrius*).
- 36 Fiennes, tilleul de Crocq (protected *Tilia* on crossroad in village), IFBL : E21.21, Lamb1 :

- 563.9/1347.9, alt. 90 m (July 1999, *L. Sparrius*).
- 37 S of Ferques, carrière Basse-Normandie, on *Acer pseudoplatanus*, IFBL : E22.28 (May 1989, VAN HALUWYN (1990)).
- 38 N of Colembert, on *Fraxinus* along road D 251 E, IFBL : E21.41 (May 1989, VAN HALUWYN (1990)).
- 39 Nabringhen, *Acer* along main road, IFBL : E21.41, 1°52'E/50°44'N (July 1969, *M. Brand*).
- 40 SW of Desvres, Longfossé, *Tilia* around church, IFBL : F22.28, 1°48'E/50°39'N (July 1969, *M. Brand*).
- 42 NNE of Neufchâtel-Hardelot, Ecomes, *Ulmus* in wood near estate, IFBL : F22.26, 1°39'E/50°38'N (July 1973, *M. Brand*).
- 43 6 km ENE of Boulogne, Pittefaux, *Acer* in castle park, IFBL : E22.46, 1°41'E/50°45'N (July 1988, *M. Brand*).
- 44 11 km N of Boulogne, Audresselles, village church, limestone, IFBL : E22.25, 1°36.1'E/50°49.3'N (July 1991, *M. Brand*).

### Lime Boulogne Limestone Quarries

- 45 S of Ferques, carrière Basse-Normandie, abandoned limestone quarry, N of quarry, S of road, climbing site, artificial, wooded outcrop of limestone rock on slope, IFBL : E22.28, Lamb1 : 559.7/1346.3, alt. 40-55 m (July 1999, *L. Sparrius*).
- 46 1.5 km W of Ferques, 'point de vue aménagé' along road D 231 to Blecquenecques, on block of marble, IFBL : E22.27, Lamb1 : 558.3/1347.9, alt. 75 m (Aug. 2000, P. Diederich & J. Signoret).

### Forests Boulogne Forests

- Boulogne Forêt domaniale de Boulogne
- 47 Northern part, near Conteville-de-Boulogne, IFBL : E22.57 (Nov. 1988, *J. L. Spier*).
- 48 Plots 17 (SW extremity), 18 ('sentier forestier de la route forestière des Aulnes' towards road N 42) and 20 (along road D 254), forest with *Fraxinus*, *Carpinus* and *Quercus*, along road mainly on cut branches of *Fraxinus*, IFBL : E22.57, Lamb1 : 556.6-556.9/1336.5-1337.1, alt. 90 m (Aug. 2000, P. Diederich & J. Signoret).



- 49 Plot 43 and roadside, old forest with *Quercus*, *Fagus* and *Carpinus*, *Alnus* along stream, IFBL : E22.57, Lamb1 : 556.4/1336.3, alt. 100 m (July 1999, *L. Sparrius*).
- 50 IFBL : E22.57, 1°44'E/50°43'N (June 1969, *M. Brand* ; July 1973, *M. Brand* ; July 1988, *M. Brand* ; July 1991, *M. Brand*).
- 51 Plot 50, E of the 'route forestière de la Lombarderie', *Populus* cf. *×canadensis*, *Fraxinus*, *Quercus*, *Fagus*, *Carpinus* and *Picea*, partly along a stream ; concrete wall over stream, IFBL : F22.17, Lamb1 : 556.4/1335.3, alt. 65 m (July 1999, *L. Sparrius* ; Aug. 2000, *P. Diederich* & *J. Signoret*).
- 52 IFBL : F22.17 ? (May 1989 and before 1989, VAN HALUWYN (1990)).
- 53 Plot 70, NE of the 'route forestière de la Lombarderie', forest with *Fraxinus*, *Quercus*, *Betula*, etc. ; along a small stream also with *Alnus* and *Corylus*, IFBL : F22.17, Lamb1 : 556.7-556.9/1334.3-1334.6, alt. 90 m (Aug. 2000, *P. Diederich* & *J. Signoret*).
- 54 Plots 98 and 99, old forest along stream, with *Quercus*, *Corylus*, *Fagus*, *Fraxinus* and *Carpinus*, *Fraxinus* along road, IFBL : F22.17, Lamb1 : 556/1331, alt. 70-100 m (July 1999, *L. Sparrius*).
- 55 Plot 99, old forest along stream, with *Quercus*, *Corylus*, *Fagus*, *Fraxinus* and *Carpinus*, one old, marked *Fraxinus* on splitting point of two streams, IFBL : F22.17, Lamb1 : 556.5/1331.9, alt. 80 m (July 1999, *L. Sparrius*).
- Fiennes Bois de Fiennes (SE of Ferques)
- 56 Near 'Le Courtil aux Geais', old growth forest with *Quercus*, *Fraxinus*, *Fagus* and *Carpinus*, IFBL : E21.21, Lamb1 : 563.5/1347.0, alt. 90 m (July 1999, *L. Sparrius*).
- Desvres Forêt domaniale de Desvres
- 57 Plot 22, on both sides of the 'chemin Brillard', W of the bridge, swampy forest with *Carpinus*, *Quercus*, *Fraxinus*, *Alnus*, etc., partly along a small stream, IFBL : F22.18, Lamb1 : 562.8/1332.4, alt. 50 m (Aug. 2000, *P. Diederich* & *J. Signoret*).
- 58 IFBL : F21.11 ? (April 1972, *F. Rose* ; July 1973, *M. Brand*).
- Hardelot Forêt domaniale d'Hardelot (S of Boulogne-sur-Mer)
- 59 Plot 20, W of stream, near the 'route forestière d'Ecames', mixed forest with *Carpinus*, *Fraxinus*, *Quercus*, etc. ; near stream, humid forest with *Alnus*, *Salix* ; *Populus* cf. *×canadensis* plantation, IFBL : F22.26, Lamb1 : 551.8/1327.5, alt. 20 m (Aug. 2000, *P. Diederich* & *J. Signoret*).
- 60 S part of plot 33, N of the 'chemin du Milieu', mixed forest with *Carpinus*, *Fraxinus* and *Quercus*, IFBL : F22.25, Lamb1 : 550.8/1327.2, alt. 40 m (Aug. 2000, *P. Diederich* & *J. Signoret*).
- 61 IFBL : F22.26 ? (August 1954, *J. J. Barkman* ; July 1973, *M. Brand*).
- Grasslands Boulogne Grasslands**
- 63 Cap Blanc-Nez, top of cliff, grassland with limestone pebbles, blockhaus, IFBL : D22.47, Lamb1 : 555.8-556.3/1358.6-1359.2, alt. 50-130 m (Oct. 1973, *E. Sérusiaux* ; July 1988, *M. Brand* ; July 1999, *L. Sparrius*).
- PIC PICARDY DISTRICT**
- Rural Picardy Rural Localities**
- 64 Licques, on *Tilia* in village, IFBL : E21.33 (May 1989, VAN HALUWYN (1990)).
- Forests Picardy Forests**
- Montcavrel Forêt de Montcavrel
- 65 6 km N of Montreuil, N of Montcavrel, forêt de Montcavrel, forest dominated by *Fraxinus* and *Quercus*, IFBL : F21.51 (April 1972, *F. Rose* ; April 1983, *E. Sérusiaux*).
- Guînes Forêt domaniale de Guînes
- 66 Plot 29, coniferous forest with old *Pseudotsuga*, young *Quercus* along road, old *Quercus* on crossroad, IFBL : E21.21, Lamb1 : 566.0/1348.8, alt. 80 m (July 1999, *L. Sparrius*).
- 67 Near 'mont de Plaisance', plot 54 and roadside, large *Fraxinus* trees in grassland, free standing *Fagus* trees along road, old growth forest with *Corylus* coppices, old *Quercus* and *Fagus*, IFBL : E21.21, Lamb1 : 565.6/1349.1, alt. 100 m (July 1999, *L. Sparrius*).
- 68 IFBL : E21.21 ? (April 1972, May 1989, Febr. 1990, VAN HALUWYN (1990) ; Oct. 1988, *E. Sérusiaux*).



## NOTES ON INTERESTING SPECIES

The authors of the Checklist of the Lichens and Lichenicolous Fungi of Belgium and Luxembourg (DIEDERICH & SÉRUSIAUX 2000) have decided to expand their area of study to the territory dealt with in this paper, e. g. the so-called Boulogne district of LAMBINON *et al.* (1998), and the immediate surroundings. We thus include here all the species which are new for the expanded area of the checklist (DIEDERICH & SÉRUSIAUX 2000), called further on the 'checklist area'. We also comment on several interesting species, including those erroneously published from the Boulonnais, for which we have been able to examine the relevant collections.

Unless otherwise mentioned, all specimens are from France, dépt. Pas-de-Calais. The private herbarium of the collector is indicated by (h).

*Bacidia friesiana* (Hepp) Körb.

A specimen from forêt d'Hardelot (F22.25 ?, 1954, on *Fraxinus*, Barkman 4739, L), published under this name by BARKMAN (1990 : 16), has been examined and proved to be *Bacidia arceutina*. The species was also reported from Calais and Houdain by BOULY DE LESDAIN (1920), but unfortunately his herbarium was destroyed in 1940. *Bacidia friesiana* does not appear to exist in the study area.

*Bacidia laurocerasi* (Duby) Zahlbr. (= *B. subacerina* Vain.)

Boul. : SW Wissant, S Tardinghen, N Le Hamel (Loc. 29), sur *Fraxinus*, Aug. 2000, Diederich 14314 (h) & Signoret ; forêt domaniale de Boulogne (F22.17 ?), sur un très vieux *Fraxinus* près d'un ruisseau dans une vallée profonde et humide au milieu de la forêt, Aug. 1954, Barkman 4674 (L, as *B. acerina*) ; forêt domaniale d'Hardelot (Loc. 60), sur *Fraxinus*, Aug. 2000, Diederich 14326 (h, LG) & Signoret ; *ibid.* (Loc. 61), on *Fraxinus*, July 1973, Brand (h) ; *ibid.*, sur un vieux *Fraxinus* dans une clairière, Aug. 1954, Barkman 4739 (L, as *B. aff. atrogrisea*).

This species has already been reported from the forêt de Boulogne by VAN HALUWYN (1990) (Loc. 52) and from the Boulogne area, but without

any additional information, by BARKMAN (1990 : 16, as *B. laurocerasi* and *B. subacerina*). Its presence in the studied area is herewith confirmed.

*Caloplaca cerinelloides* (Erichsen) Poelt

Mar. : Dunes just N of Ambleteuse (Loc. 17), on *Sambucus*, July 1999, Sparrius 3040 (h).

New for the checklist area.

*Caloplaca marina* (Wedd.) Du Rietz

Mar. : cap Gris-Nez (Loc. 1), blocs gréseux au bas de la falaise, zone à *Verrucaria maura*, June 1967, Lambinon 67/423 (LG) ; observed several times since its discovery and last seen in the late nineties by J. LAMBINON.

New for the checklist area.

*Caloplaca maritima* (B. de Lesd.) B. de Lesd.

The author citation of this species was erroneously given as 'B. de Lesd.', instead of '(B. de Lesd.) B. de Lesd.', by ARUP (1997), and this was followed by DIEDERICH & SÉRUSIAUX (2000). The author citation was given as '(B. de Lesd.) Lettau' by some German authors, e. g. SCHOLZ (2000). However, BOULY DE LESDAIN'S combination (in Rev. Bryol. Lichénol. 22 (3-4) : 313, 1953) can be considered as valid and precedes that of Lettau (in Flechten aus Mitteleuropa XIII, Feddes Repertorium 61 : 18, 1958) by five years.

*Caloplaca microthallina* (Wedd.) Zahlbr.

Mar. : cap Gris-Nez (Loc. 1), Nov. 1963, on sandstone, Lambinon 63/1661 (LG) ; *ibid.*, Aug. 2000, Diederich 14386 (h) & Signoret ; cap du Riden, Cran aux Œufs (Loc. 3), Oct. 1973, on sandstone, Sérusiaux 780 p. p. (LG) ; Cran aux Œufs (Loc. 4), on sandstone, April 1983, Sérusiaux 4737 p. p. (LG) ; *ibid.*, on tufa, Sérusiaux 4730 (LG) ; *ibid.*, on sandstone, July 1988, Brand (h).

New for the checklist area.

*Caloplaca thallincola* (Wedd.) Du Rietz

Mar. : cap Gris-Nez (Loc. 1), Nov. 1963, on sandstone, Lambinon 63/1660 (LG) ; *ibid.*, 1981, Diederich 3738 (h) ; *ibid.*, Aug. 2000, Diederich 14383 (h) & Signoret ; *ibid.* (Loc. 2), Nov. 1963, Lambinon 63/1669 p. p. (LG) ; *ibid.*, July 1988,



*Brand* (h) ; cap du Riden, Cran aux Œufs (Loc. 3), Oct. 1973, on sandstone, *Sérusiaux* 774 p. p., 780 p. p. (LG) ; Cran aux Œufs (Loc. 4), on sandstone, July 1973, *Brand* (h) ; *ibid.*, July 1999, *Sparrius* 3128 (h) ; Cran Poulet (Loc. 7), on sandstone, July 1999, *Sparrius* 2972 (h) ; Ambleteuse, ancien fort Mahon (Loc. 10), on sandstone, Aug. 2000, *Diederich* 14432 (h) & *Signoret*.

The species was reported from the Boulonnais coast by BOREL (1952, sub *Placodium murorum* var. *thallincola*), who mentioned the following localities : Équihen (F22.14), Cran aux Œufs et cap Gris-Nez. Its presence in the study area is herewith confirmed.

#### *Chrysothrix flavovirens* Tønsb.

Mar. : S of Boulogne-sur-Mer, forêt domaniale d'Écault (Loc. 22), on *Pinus*, Aug. 2000, *Diederich* 14343 (h) & *Signoret* ; *ibid.*, on *Quercus*, *Diederich* 14344 (h) & *Signoret* ; Dannes, massif du mont Saint-Frieux (Loc. 24), on *Pinus*, Febr. 2001, *Sérusiaux* (LG).

Other specimen examined : France, Vendée : au N des Sables-d'Olonne, partie N de la forêt domaniale d'Olonne, alt. 10 m, 7.1990, sur *Pinus sylvestris*, *Diederich* 9123 (h, LG).

The specimens *Diederich* 14343 and 14344 have been checked by thin layer chromatography (TLC) and contain rhizocarpic acid and 'chryso-phthalma unknown'. New for the checklist area.

#### *Cliostomum corrugatum* (Ach.) Fr.

The specimen *Sérusiaux* 1955 (LG) previously published as this species (DIEDERICH & SÉRUSIAUX 2000) refers to a particularly well developed *C. griffithii* ; the genuine *C. corrugatum* does not seem to exist in the Boulonnais, nor in the area covered by the checklist.

#### *Cliostomum flavidulum* Hafellner & K. Kalb

Boul. : forêt domaniale de Boulogne (Loc. 54), on *Carpinus* in forest, July 1999, *Sparrius* 2944 (h, hb. Brand).

The specimen has been identified by M. Brand and T. Tønsberg. TLC reveals the presence of atranorin and fumarprotocetraric acid. New for the checklist area.

#### *Cryptolechia carneolutea* (Turner) A. Massal.

Boul. : 3 km S of Wissant, Warcove (Loc. 30), on old *Ulmus* in bush near farm, July 1973, *Brand* (h).

This small bush appeared to be destroyed when visited again in 1999, and the species seems therefore to have disappeared. New for the checklist area.

#### *Didymellopsis collematum* (J. Steiner) Grube & Hafellner

Mar. : Cran Poulet (Loc. 7), on sandstone rock, on *Collema tenax*, July 1999, *Sparrius* 3751 (h).

This lichenicolous fungus was previously known only from its type locality in Greece on *Collema auriforme*, and from Scotland on *C. globulentum* (GRUBE & HAFELLNER 1990). *Collema tenax* is a new host. New for the checklist area.

#### *Graphina anguina* (Mont.) Müll. Arg.

Boul. : forêt domaniale de Boulogne (Loc. 48), on *Carpinus*, Aug. 2000, *Signoret* 324 (h) & *Diederich*.

This species has already been reported from the forêt de Boulogne (Loc. 52) and the forêt de Guînes (Loc. 68) by VAN HALUWYN (1990), but no specimen has been seen. BOULY DE LESDAIN (1920) reported *G. anguina* f. *flexuosa* from the forêt de Guînes, and f. *radiata* from the forêt d'Hesdin, but these records cannot be verified as Bouly de Lesdain's herbarium was destroyed in 1940. Its presence in the Boulonnais is thus confirmed.

#### *Gyalidea minuta* van den Boom & Vezda

Type : Portugal, Algarve, Serra de Monchique, road 267, small valley with *Juglans* and *Alnus glutinosa* trees in dry stream, alt. 500 m, on trunk of very shaded *A. glutinosa*, 28 July 1993, v. d. Boom 14785 (hb. P. v. d. Boom, holotypus !)

Additional specimens examined : Boul. : S de Boulogne-sur-Mer, forêt domaniale d'Hardelot (Loc. 59), sur *Alnus*, Aug. 2000, *Diederich* 14352 (h) & *Signoret*.

Belgique, prov. Luxembourg, Lorr. : Buzenol, vallée du Gros Ruisseau, à hauteur du



Cron de Montauban (IFBL : M7.14), frêne alluviale, sur *Fraxinus*, June 1984, *Sérusiaux* 6366 (LG).

This minute and inconspicuous species is characterized by its pale orange to almost translucent (completely translucent when wet) apothecia, 0.1-0.2 mm in diam., with a very pale greyish thallus, its simple or slightly branched paraphyses, which are apically slightly widened, and ascospores, which are 8/ascus, broadly ellipsoid, muriform or almost so, (9.5-)11-18(-20) × 5-8(-9) µm. The species is so far known from three localities, all on trees in shaded and humid forests, in Portugal (Algarve, type collection : VAN DEN BOOM & VEZDA 1995), France (Pas-de-Calais) and Belgium (prov. Luxembourg) ; there is little doubt it is overlooked. New for the checklist area.

#### *Lecania atrynoides* Knowles

Mar. : cap Gris-Nez (Loc. 1), on sandstone, July 1999, *Sparrius* 3098 p. p. (h) ; *ibid.*, Aug. 2000, *Diederich* 14390 (h) & *Signoret* ; *ibid.* (Loc. 2), Nov. 1963, *Lambinon* 63/1669 p. p. (LG) ; *ibid.*, July 1988, *Brand* (h) ; Cran aux Œufs (Loc. 4), on sandstone, July 1973, *Brand* (h) ; *ibid.*, July 1988, *Brand* (h) ; *ibid.*, April 1983, *Sérusiaux* 4731 p. p. (LG) ; *ibid.*, July 1999, *Sparrius* 3121 (h) ; Cran Poulet, on sandstone, July 1999, *Sparrius* 2978 (h) ; beach just N of Ambleteuse (Loc. 9), on sandstone, July 1999, *Sparrius* 3092 (h) ; Ambleteuse, ancien fort Mahon (Loc. 10), on sandstone, Aug. 2000, *Diederich* 14434 (h) & *Signoret*.

New for the checklist area.

#### *Lecanora jamesii* Laundon

Boul. : forêt domaniale de Boulogne (Loc. 53), on *Fraxinus*, Aug. 2000, *Diederich* 14278 (h) & *Signoret*.

The specimen is sterile and contains atranorin and 2-O-methylsulphurellin (TLC !). It has been identified by T. Tønsberg. This species was previously known from Great Britain, Ireland, France (Brittany), northern Spain and Chile (*PURVIS et al.* 1992). It is new for the checklist area.

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

Mar. : cap Gris-Nez (Loc. 1), on sandstone, May 1994, *Torenbeek* (hb. Spier).

This species was discovered on cap Gris-Nez on one single sandstone rock by Prof. Boulangé in 1951 ; a detailed map indicating the location of this rock was published by BOREL (1952). The population was revisited in 1989 by VAN HALUWYN (1990) and in 1994 by B. Torenbeek (see above). During subsequent excursions in 1999 (*L. Sparrius*), 2000 (*P. Diederich, J. Signoret*) and 2001 (*P. Diederich*), the species could not be found, and it might therefore be extinct in the checklist area.

#### *Lobaria pulmonaria* (L.) Hoffm.

Boul. : forêt domaniale de Boulogne (Loc. 55), on *Fraxinus*, July 1999, *Sparrius* 2937 (h).

In the dépt. Pas-de-Calais, *Lobaria pulmonaria* was first reported by BOULY DE LESDAIN (1920) from the forêt d'Hesdin (G21.44 ?) on *Quercus*, then by BOREL (1964) from the forêt de Licques (E21.33). Borel also collected it on *Quercus* in the bois d'Ecottes (SE of forêt de Guînes, E21.33 ?) (VAN HALUWYN 1990). DELZENNE-VAN HALUWYN (1973a) reported it from the forêt de Montcavrel (Loc. 65) on *Ulmus*, the bois Saint-Hubert near Lebiez (G21.33 ?) on *Acer* and *Fraxinus* and the forêt de Boulogne. F. Rose (pers. comm.) also found it in the forêt de Boulogne and the forêt de Montcavrel before 1975. In 1972, Rose, Géhu and Van Haluwyn discovered numerous thalli of *L. pulmonaria* in the forêt de Boulogne (plots 86 and 87), but unfortunately the trees were eventually cut down and the populations destroyed (COURTOIS & VAN HALUWYN 1998, VAN HALUWYN 1990). In 1996 three other trees supporting this lichen were found in the plots 98 (on *Quercus*), 99 (*Fraxinus*) and 100 (*Fraxinus*), and the forest authorities agreed not to cut any trees in the surroundings (COURTOIS & VAN HALUWYN 1998). In 1999, a single *Fraxinus* tree with *L. pulmonaria* was found by one of us in plot 99. The species is thus on the verge of extinction in the area studied in this paper.



*Mycomicrothelia confusa* D. Hawksw.

Boul. : bois d'Haringzelle, between cap Gris-Nez and Audresselles (Loc. 31), on *Quercus*, July 1999, *Sparrius* 3000 (h).

This probably non-lichenized fungus, which was previously known from the British Isles and Norway (HAWKSWORTH 1985), is new for the checklist area.

*Opegrapha calcarea* Sm.

Mar. : cap Gris-Nez (Loc. 1), on sandstone, Nov. 1963, *Lambinon* 63/1666 (LG) ; *ibid.*, Aug. 2000, *Diederich* 14459 (h) & *Signoret* ; *ibid.*, on sandstone and on wall, June 2001, obs. *Diederich* ; Cran aux Œufs (Loc. 4), on sandstone, July 1999, *Sparrius* 3110 (h) ; Ambleteuse, ancien fort Mahon (Loc. 10), on sandstone rocks (also observed on wall of fortification), Aug. 2000, *Diederich* 14431 (h) & *Signoret*.

The saxicolous *Opegrapha* species with 3-septate ascospores are in an urgent need of a modern revision. Amongst the non-lichenicolous species with a pale or inconspicuous thallus, non-pruinose ascomata, ascospores less than 20 µm long and conidia less than 11 µm long, PURVIS *et al.* (1992) only accepted *O. saxatilis* s.l., which includes the 'ecotypes' *O. calcarea*, *O. chevallieri* Leight. and *O. conferta* Anzi. Other authors, such as WIRTH (1995) or TORRENTE & EGEA (1989) included *O. saxatilis* in the species concept of *O. rupestris* Pers., a lichenicolous species growing over species of the Verrucariaceae. They accept *O. calcarea* as a distinct taxon of which *O. chevallieri* and *O. trifurcata* Müll. Arg. are synonyms. The rich collections from cap Gris-Nez and other localities in the Boulonnais clearly belong to at least two distinct taxa.

The first one is characterized by particularly thick, strongly branched, stellate apothecia, which are 0.2-0.3(-0.4) mm wide ; the pycnidia are large, 100-180 µm diam., and the bacilliform conidia mainly measure 5-7 × 0.8-1.1 µm ; the thallus is often relatively thick, white or brownish. If we follow CLAUZADE & ROUX (1985) who studied the type specimens (BM) of both *O. calcarea* and *O. chevallieri* (ROUX, pers. comm.), this species

has to be named *O. calcarea* (= *O. chevallieri*). *O. chevallieri* var. *agglomerata* Sandst. with distinctly stellate apothecia is most probably a further synonym. *O. chevallieri* was already mentioned from the dépt. Pas-de-Calais by BOULY DE LESDAIN (1920 : 225), on walls in Calais and Fort Nieulay. Unfortunately, the herbarium of BOULY DE LESDAIN was destroyed in 1940, and the corresponding specimens cannot be checked.

A second species, well represented by the specimens *Lambinon* 63/1670 and *Signoret* 357 from cap Gris-Nez, has narrow and linear, rarely branched and never stellate apothecia, which are 0.13-0.2 mm wide ; the pycnidia are much smaller than in *O. calcarea*, 50-100 µm diam., and the bacilliform conidia are slightly, but distinctly longer, 7-10 × 0.8-1.1 µm ; the thallus is inconspicuous or whitish. The specimen *Sparrius* 2926 from a limestone quarry probably belongs to the same species. Although the correct name of this species might be *O. trifurcata* (CLAUZADE & ROUX 1985), we provisionally use the name *O. saxatilis*, being aware that a satisfactory typification of this epithet is still needed.

A further, very well developed specimen from cap Gris-Nez, *Diederich* 14450, is included below in the species concept of *O. saxatilis*, but it might represent a distinct, third species. It is mainly distinguished from the other specimens of *O. saxatilis* by apothecia, which are more or less radially arranged in thalli of 1-5 cm diam. The bacilliform conidia are slightly longer, (9-)9.5-10.5(-11.5) × 1-1.3 µm, and the asci also appear to be longer (55-60 µm long) than in the two *O. saxatilis* specimens from cap Gris-Nez (in which the asci are 45-50 µm long) ; the thallus is thin and whitish. More similar specimens are needed to ascertain if this represents a distinct taxon or not.

In the recent checklist of Belgium, Luxembourg and northern France (DIEDERICH & SÉRUSIAUX 2000), both *O. calcarea* (syn. *O. chevallieri*) and *O. saxatilis* were accepted as being present, but very rare, in the Meuse district in Belgium. However, all these data are based on literature reports, and no corresponding specimens are available in LG or in the private herbarium of P. Diederich.



***Opegrapha saxatilis* DC. s. l.**

Mar. : cap Gris-Nez (Loc. 1), on sandstone, Aug. 2000, *Signoret* 357 (h) & *Diederich* 14450 (h) ; cap Gris-Nez (Loc. 2), on sandstone, Nov. 1963, *Lambinon* 63/1670 (LG). - Boul. : S of Ferques, carrière Basse-Normandie (Loc. 45), on limestone, July 1999, *Sparrius* 2926 (h).

See comments under *O. calcarea*.

***Opegrapha soređiifera* P. James**

Boul. : forêt domaniale de Boulogne (Loc. 48), on *Carpinus* and *Fraxinus*, Aug. 2000, *Diederich* 14234 p. p., 14260 (h) & *Signoret* (h) ; bois de Fiennes (Loc. 56), on *Acer*, July 1999, *Sparrius* 3011 (h) ; forêt domaniale de Desvres (Loc. 57), on *Carpinus* and *Quercus*, Aug. 2000, *Diederich* 14290, 14306 (h) & *Signoret* 341 (h) ; forêt domaniale d'Hardelot (Loc. 59), on *Carpinus* and *Fraxinus*, Aug. 2000, *Diederich* 14357, 14362 (h) & *Signoret* ; *ibid.* (Loc. 60), on *Carpinus* [also obs. on *Fraxinus* and *Quercus*], Aug. 2000, *Diederich* 14332 (h, LG) & *Signoret*.

New for the checklist area.

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

Boul. : forêt domaniale de Boulogne (Loc. 53), on *Alnus*, *Corylus* and *Fraxinus* close to a stream, Aug. 2000, *Diederich* 14272, 14273, 14284 & *Signoret* 332 (LG, hb. D, Si and Sp).

A nice and healthy population of this species was found close to a stream in a narrow valley. Accompanying species include *Arthonia cinnabarina* and *A. elegans*, *Enterographa crassa*, *Graphis elegans* and *G. scripta*, *Lecanora jamesii*, *Pertusaria multipuncta* and *Pyrenula chlorospila*. The species is new for the Boulonnais area.

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

Boul. : forêt domaniale de Boulogne (IFBL : F22.17 ?), sur un très vieux *Fraxinus* dans une clairière, Aug. 1954, *Barkman* 4695 (L) ; forêt domaniale d'Hardelot (F22.25 ?), sur un très vieux *Fagus* dans une forêt humide, Aug. 1954, *Barkman* 4660 (L).

Both specimens were erroneously published as *Graphina platycarpa* (BARKMAN 1990). *Phaeographis smithii* was furthermore published from the forêt domaniale de Guînes (Loc. 68) by VAN HALUWYN (1990), but no corresponding specimen has been examined by us. The report of *G. platycarpa* from the forêt de Desvres and the bois de Ruminghen by BOULY DE LESDAIN (1920) could as well not be checked. The occurrence of this species in the Boulonnais area is thus confirmed, but unfortunately it seems to be extinct.

***Ramalina lacera* (With.) J. R. Laundon (= *R. evernioides* auct., non Nyl.)**

Boul. : 3 km S of Wissant, Warcove (Loc. 30), on old *Ulmus* in bush near farm, July 1973, *Brand* (h) ; Wissant (IFBL : E22.16), sur le tronc d'un *Ulmus* dans une forêt humide à côté d'une cascade, 1954, *Barkman* 4733 (L).

This species was not rare in the dépt. Pas-de-Calais at the beginning of the 20th century, but seems to be extinct. BOULY DE LESDAIN (1920) reported it from Calais (D21.32 ?), Saint-Omer (E21.58 ?), Boulogne (E22.55 ?) and Berck (G22.44 ?). DELZENNE-VAN HALUWYN (1973a) reports on several other localities where the species was found by Barkman in 1958 (Oye-Plage, D21.35 et Marck, D21.43), Bon (fort Mahon, G22.54 ?) and Duviigneaud in 1942 (Rinxent, E22.37).

***Verrucaria erichsenii* Zschacke**

Mar. : cap Gris-Nez (Loc. 1), on sandstone, July 1988, *Brand* p. p. (h) ; *ibid.*, Aug. 2000, *Diederich* 14376 (h) & *Signoret* ; *ibid.* (Loc. 2), on sandstone, July 1988, *Brand* p. p. (h) ; Cran aux Œufs (Loc. 4), on sandstone, July 1988, *Brand* (h) ; Wimereux, pointe aux Oies (Loc. 12), on sandstone, July 1999, *Sparrius* 3104 (h) ; Boulogne-sur-Mer, digue nord du port (Loc. 14), on sandstone, Nov. 1963, *Lambinon* 63/1641 (LG).

This species has sometimes been confused with *V. ditmarsica* Erichsen (PURVIS *et al.* 1992). However, perithecia of *V. ditmarsica* are completely surrounded by the blackish involucrellum, whilst *V. erichsenii* has a laterally spreading



involucrellum and a dark brown true exciple. Careful sections through perithecia from the collections mentioned above clearly show a spreading involucrellum and a dark true exciple. New for the checklist area.

**Verrucaria halizoa** Leight.

Mar. : Boulogne-sur-Mer, digue nord du port (Loc. 14), on sandstone, Nov. 1963, *Lambinon* 63/1639, 63/1642 (LG) ; Wimereux, pointe aux Oies (Loc. 12), on sandstone, July 1999, *Sparrius* 3105 (h).

New for the checklist area.

**Verrucaria maura** Wahlenb.

Mar. : cap Gris-Nez (Loc. 1), on sandstone, Nov. 1963, *Lambinon* 63/1659 (LG) ; *ibid.*, 1981, *Diederich* 3737 (h) ; *ibid.*, July 1988, *Brand* p. p. (h) ; *ibid.*, July 1999, *Sparrius* 3097 (h) ; *ibid.*, Aug. 2000, *Diederich* 14375 (h) & *Signoret* ; *ibid.* (Loc. 2), on sandstone, July 1988, *Brand* p. p. (h) ; *ibid.*, July 1999, *Sparrius* 3107 (h) ; Cran aux Œufs (Loc. 4), on sandstone, July 1973, *Brand* (h).

This species has been reported as being very common on the coastal rocks between cap Gris-Nez and Boulogne by BOULY DE LESDAIN (1920). Its presence in the Boulonnais is herewith confirmed.

**Verrucaria sandstedei** B. de Lesd. (= *V. lorrain-smithii* Knowles)

Mar. : cap Gris-Nez (Loc. 1), on sandstone, July 1988, *Brand* (h) ; *ibid.*, July 1999, *Sparrius* 3096 (h) ; *ibid.*, Aug. 2000, *Diederich* 14377 (h) & *Signoret* ; *ibid.* (Loc. 2), on sandstone, July 1988, *Brand* (h) ; Cran aux Œufs (Loc. 4), on sandstone, July 1988, *Brand* (h) ; Boulogne-sur-Mer, digue nord du port (Loc. 14), calcaire de Marquise, Nov. 1963, *Lambinon* 63/1638 (LG).

BOULY DE LESDAIN (1920) discovered this species in Calais ('pierres calcaires de la digue, contre jetée Est, recouverte par la mer à marée haute', D21.31). He called it *V. lorrain-smithii*, but recognized that this name most probably just represents a synonym of *V. sandstedei*. The pres-

ence of this species in the Boulonnais is herewith confirmed.

ABBREVIATIONS

- t terricolous (calciferous sand in coastal dunes, acidic sand in heathlands and on coastal sandstone rocks, soil elsewhere)
- ar debris of *Armeria maritima*
- pb pebbles or shells in dunes
- ss coastal sandstone rocks (slightly calcareous)
- li limestone (hard limestone in inland quarries, soft limestone or tufa near coast)
- art artificial substrata (concrete, mortar, brick, asbestos, wall, etc.)

- AC *Acer*
- AE *Aesculus*
- AL *Alnus*
- B *Betula*
- CA *Carpinus*
- CO *Corylus*
- CR *Crataegus*
- EU *Evonymus*
- FA *Fagus*
- FR *Fraxinus*
- HE *Hedera*
- LY *Lycium barbarum*
- M *Malus*
- PA *Prunus avium*
- PIC *Picea*
- PIN *Pinus*
- PO *Populus*
- PS *Pseudotsuga*
- Q *Quercus*
- SAL *Salix*
- SAM *Sambucus*
- T *Tilia*
- U *Ulmus*
- tr tree
- wo wood
- B leg. M. Brand (private collection)
- Ba leg. J. J. Barkman (L)
- D leg. P. Diederich (private collection)
- De leg. V. Demoulin (LG)
- La leg. J. Lambinon (LG)
- R leg. F. Rose (NMW, data communicated by the collector, only partly checked by us)



Sé leg. E. Sérusiaux (LG)  
 Si leg. J. Signoret (private collection)  
 Sp leg. L. Sparrius (private collection)  
 Sr leg. L. Spier (private collection)  
 B+, D+, etc. idem, filed within other specimens  
 VH data published in VAN HALUWYN (1990) and accepted, but relevant material not seen by the authors

no name of collector: field observations by B (July 1973, July 1988, Aug. 1991), D & Si (Aug. 2000) or Sp (July 1999)

\* Lichenicolous fungi  
 (+) Doubtfully lichenized fungi  
 + Non-lichenized fungi

### SPECIES LIST

Numbers refer to localities (see Locality list). Species names in **bold** are additions to the checklist of Belgium, Luxembourg and N France (DIEDERICH & SÉRUSIAUX 2000). If a name different from that of the checklist is used, the checklist name is added between parentheses.

\**Abrothallus bertianus*: **BOUL Forests** Boulogne 48FR(D) on *Melanelia glabrata*  
 \**Abrothallus microspermus*: **MAR Dunes** 22Q(D) on *Flavoparmelia caperata*  
*Acarospora smaragdula*: **MAR Rocks** Gris-Nez 4ss(Sp)  
*Acrocordia conoidea*: **BOUL Lime** 45li(Sp)  
*Acrocordia gemmata*: **MAR Dunes** 21(VH) **BOUL Rural** 42U(B) **Lime** 45FR(Sp) **Forests** Boulogne 54FR 55FR(Sp)  
*Acrocordia salweyi*: **MAR Rocks** Gris-Nez 4ss(Sp)  
*Agonimia tristicula*: **MAR Dunes** 15t(B+) **BOUL Lime** 45li(Sp+)  
*Anaptychia ciliaris*: **BOUL Rural** 37AC(VH) 39AC(B) 40T(B); see also DELZENNE-VAN HALUWYN (1973a)  
*Anisomeridium bifforme*: **MAR Dunes** 15FR(Sp) **BOUL Rural** 29SAL(D) **Forests** Hadelot 61(Ba); an additional specimen, collected by Barkman in Wissant (D22.56, on *Ulmus*, 1954, Barkman 4521a, kept in L), has been examined  
*Anisomeridium polypori*: **MAR Dunes** 15AL,SAM(Sp) **BOUL Rural** 31AC,FR,SAL,SAM,U(Sp) 33SAM 34AE(Sp) 36T(Sp+) **Lime** 45U **Forests** Boulogne 48AC,SAM(D,Si) 51FR(Sp) 53SAM Fiennes 56FR(Sp) Hadelot 61FR(Ba+) **PIC Forests** Guînes 67FA

*Arthonia cinnabarina*: **BOUL Forests** Boulogne 48FR(D,Si) 52(VH) 53FR(D) Hadelot 61CA(B)  
*Arthonia didyma*: **BOUL Forests** Boulogne 48FR(D) 51FR(Sp) Fiennes 56FR(Sp) Desvres 57CA(D) **PIC Forests** Guînes 67FR  
*Arthonia elegans*: **BOUL Forests** Boulogne 53CO(D)  
 \**Arthonia molendoi*: **MAR Rocks** Gris-Nez 1ss(D) on *Caloplaca thallincola* 4ss(Sé+ on *C. flavescens* and *C. decipiens*)  
*Arthonia muscigena*: **MAR Rocks** 5LY(D)  
*Arthonia punctiformis*: **BOUL Rural** 31Q(Sp)  
*Arthonia radiata*: **BOUL Rural** 31AC,FR **Forests** Boulogne 48FR(D) 49FA 50FR(B+) 51FR(Sp) 53FR(D) 54FR Fiennes 56AC,FR Desvres 57CA(D,Si) Hadelot 60FR(D) **PIC Forests** Guînes 67FR  
*Arthonia spadicea*: **MAR Dunes** 15AL 22B(D) **BOUL Rural** 31FR,Q(Sp) 33CR **Forests** Boulogne 49FA 51FR(Sp) 52(VH) 54FR Fiennes 56AC,FR,Q Desvres 57FR,Q(D,Si) Hadelot 60CA(D) **PIC Forests** Guînes 66PS 67FA,FR,Q  
 \**Arthonia vagans* var. *lecanorina*: **MAR Rocks** Gris-Nez 1ss(D,Si+,Sp) 2ss(B+,Sp) 4ss(B,Sé+) Poulet 7ss(Sp+) **BOUL Rural** 44art(B) **Grasslands** 63art(Sé+) all on *Lecanora albescens*  
*Arthonia vinosa*: **BOUL Forests** Boulogne 52(VH)  
 +*Arthopyrenia analepta*: **BOUL Forests** Boulogne 51FR(Sp)  
*Aspicilia calcarea*: **MAR Rocks** Gris-Nez 4ss(Sp) **Dunes** 15art **BOUL Rural** 35art **Grasslands** 63li  
*Aspicilia contorta* subsp. *contorta*: **BOUL Rural** 35li  
 \**Athelia arachnoidea*: **BOUL Forests** Boulogne 48FR  
*Bacidia arceutina*: **BOUL Forests** Fiennes 56FR(Sp) Hadelot 61(Ba+) **PIC Forests** Guînes 66Q(Sp+)  
*Bacidia bagliettoana*: **MAR Dunes** 15t  
*Bacidia laurocerasi*: see above (Notes on interesting species)  
*Bacidia rubella*: **MAR Dunes** 21PO(La) **BOUL Forests** Hadelot 60FR(D+,Si)  
*Botryolepraria lesdainii*: **BOUL Lime** 45li(Sp+)  
*Buellia alboatra*: **MAR Rocks** Gris-Nez 1ss(D,La, Si+,Sp) 2ss(B,La,Sp+) 4ss(B,Sé+) Ambleteuse 9art(Sp) **BOUL Rural** 31art(Sp) 37AC(VH) 44art(B+)  
*Buellia epipolia* auct.: **MAR Rocks** Gris-Nez 1ss(Sé,VH) 4ss(B) Ambleteuse 9art(Sp) 10art(D,Si) **BOUL Rural** 44art(B); this species was called *B. venusta* in DIEDERICH & SÉRUSIAUX (2000), but following ROUX (pers. comm.), the epithet *venusta* should be reserved for a chemically, biologically and ecologically distinct species, which is parasitic on *Lecanora muralis* in its initial stages



- Buellia griseovirens*: **BOUL Rural** 31FR(Sp) 33wo,FR(Sp) **Forests** Boulogne 48FR(D,Si) 52(VH) Fiennes 56AC(Sp) Hardelot 59AL,FR, SAL(D) 60CA **PIC Rural** 64T(VH) **Forests** Guînes 67FA 68(VH)
- Buellia punctata*: **MAR Rocks** 5LY(D) **Dunes** 17SAM(Sp+) 20 26wo(Sé+) **BOUL Rural** 28AC 29wo,FR(D+) 33wo,CR,FR(Sp+) 34AE 36T(Sp+) 43AC **Forests** Hardelot 61(Ba+) **PIC Rural** 64T(VH) **Forests** Guînes 68wo(Sé+)
- Buellia subdispersa*: **MAR Rocks** Gris-Nez 4ss(B,Sp); following Roux (pers. comm.), this species has a mainly subalpine to alpine distribution, and the specimens from the Boulonnais, Belgium and Luxembourg (see also DIEDERICH & SÉRUSIAUX 2000) are likely to belong to another species
- Caloplaca albolutescens*: **MAR Rocks** Gris-Nez 1ss(D,Si) 4ss(B,Sé) Poulet 6art(Sp) 7li,ss(B,Sp) Ambleteuse 9art(Sp)
- Caloplaca aurantia*: **MAR Rocks** Ambleteuse 9art **BOUL Rural** 34ss 35art **Lime** 45li
- Caloplaca cerina* var. *cerina*: **MAR Dunes** 19SAM(B) 21PO(La)
- Caloplaca cerinelloides*: see above (Notes on interesting species)
- Caloplaca chrysodeta*: **BOUL Lime** 45li(Sp)
- Caloplaca citrina*: **MAR Rocks** Gris-Nez 1ss(D) 3ss(Sé) 4ss(Sé+) Poulet 6art(Sp) Ambleteuse 10ss(D+) **Dunes** 15art **BOUL Rural** 28AC(Sp) 29art 31art 33art 34ss **Grasslands** 63li(Sp+)
- Caloplaca coronata*: **MAR Rocks** Gris-Nez 1ss(D) Poulet 7ss(Sp+) **BOUL Rural** 29art
- Caloplaca crenulatella*: **MAR Rocks** Gris-Nez 4ss(Sé)
- Caloplaca decipiens*: **MAR Rocks** Gris-Nez 4ss(Sé+) **BOUL Rural** 35art
- Caloplaca flavescens*: **MAR Rocks** Gris-Nez 1ss(D,Sé,Si+) 2ss(B+,Sp+) 4ss(B+,Sé+,Sp+) Poulet 6art Ambleteuse 9art 10art,ss(D) **BOUL Rural** 29art 31art(Sp+) 32ss 34ss 35art 36art(Sp+) **Lime** 45li(Sp)
- Caloplaca flavocitrina*: **MAR Rocks** Gris-Nez 1ss(D) 2ss(La) 3ss(Sé) Poulet 6art(Sp) 7ss(Sp+) Ambleteuse 9ss,art(Sp) 10ss(D+) Oies 11ss(D) **BOUL Rural** 28AC 31art(Sp+) 35art 36art(Sp+) **Forests** Boulogne 51art **Grasslands** 63li; this species has often been confused with *C. citrina*; the distinguishing characters are given in VAN DEN BOOM *et al.* (1999)
- Caloplaca flavovirescens* s. l.: **MAR Rocks** Gris-Nez 1ss(D,La,Sé+) 2ss(La) 4ss(Sp) Poulet 6art Ambleteuse 9art(Sp) **BOUL Rural** 31art 34ss
- Caloplaca holocarpa*: **MAR Rocks** Ambleteuse 10art(D+) **BOUL Rural** 35art
- Caloplaca lithophila*: **MAR Rocks** Ambleteuse 9art **BOUL Rural** 31art 33art(Sp+)
- Caloplaca marina*: see above (Notes on interesting species)
- Caloplaca maritima*: **MAR Rocks** Gris-Nez 1ss(La,Sp) 2ss(B) 4ss,wo(Sé,Sp,B) Poulet 6art 7li,ss(B,Sp) Ambleteuse 9ss(Sp) 10ss(D) Oies 11ss(D) **Dunes** 18ss(D) **BOUL Rural** 44li(B) [see also above]
- Caloplaca microthallina*: see above (Notes on interesting species)
- Caloplaca obscurella*: **MAR Dunes** 21PO(La) **BOUL Rural** 29FR(D)
- Caloplaca phlogina*: **MAR Rocks** Gris-Nez 5LY(D) Poulet 7ar(B); this species has often been confused with *C. citrina*; the distinguishing characters are given in SÉRUSIAUX *et al.* (1999)
- Caloplaca saxicola*: **MAR Rocks** Gris-Nez 1ss(D+) 3ss(Sé) Ambleteuse 9art 10art Oies 11ss(D) Wimereux 13art(De+) **BOUL Rural** 31art 33art 35art **Grasslands** 63art(Sé+)
- Caloplaca teicholyta*: **MAR Rocks** Gris-Nez 4ss(Sp) Poulet 7li,ss(B,Sp) **BOUL Rural** 31art 34ss 35art
- Caloplaca thallicola*: see above (Notes on interesting species)
- Candelaria concolor*: **BOUL Rural** 33SAM(Sp) **PIC Rural** 64T(VH)
- Candelariella aurella*: **MAR Rocks** Gris-Nez 1ss(D,Si+) 4ss(B,Sé+) Poulet 7li,ss(B,Sp+) **Dunes** 18pb(Sp+) **BOUL Rural** 29art 33art **Grasslands** 63art(Sé+)
- Candelariella medians*: **MAR Rocks** Poulet 6art **Dunes** 15art **BOUL Rural** 29art 31art 34ss 35art **Grasslands** 63li
- Candelariella reflexa*: **MAR Dunes** 18tr(Sé) **BOUL Rural** 29AL,SAL 33CR **Forests** Fiennes 56Q Hardelot 59PO **PIC Rural** 64T(VH) **Forests** Guînes 68(VH)
- Candelariella vitellina*: **MAR Rocks** Gris-Nez 1ss(D+) Poulet 6art **BOUL Rural** 35art **PIC Rural** 64T(VH)
- Candelariella xanthostigma*: **BOUL Rural** 33wo(Sp) **PIC Rural** 64T(VH)
- Catillaria chalybeia*: **MAR Rocks** Gris-Nez 1ss(Sp) Poulet 7ss(Sp) **BOUL Rural** 33art(Sp) 34ss 35art
- Catillaria lenticularis*: **BOUL Rural** 35art 44art (B+) **Lime** 45li(Sp)
- Cetraria aculeata*: **MAR Dunes** 15t(B) 27t(La,VH)
- Chaenotheca ferruginea*: **MAR Dunes** 22PIN,Q(D,Si) **BOUL Forests** Boulogne 49Q 54Q



- Chrysothrix candelaris*: **MAR Dunes** 22Q **BOUL Forests** Boulogne 48FR, Q 49Q(Sp) 52(VH) 53FR Desvres 57Q Hardelot 59AL, PO, Q, SAL 60FR 61FR(Ba+) **PIC Forests** Guïnes 66Q 68(VH)
- Chrysothrix flavovirens*: see above (Notes on interesting species)
- Cladina arbuscula* subsp. *squarrosa*: **MAR Dunes** 27t(D, La)
- Cladina ciliata*: **MAR Dunes** 15t(B, Sp) 27t(La, VH)
- Cladina portentosa*: **MAR Dunes** 15t(Sp) 18t 20t 27t(D, La, VH)
- Cladonia cervicornis* subsp. *cervicornis*: **MAR Dunes** 27t(La)
- Cladonia coniocraea*: **MAR Dunes** 15FR(Sp) 22PIN **BOUL Rural** 31Q 33CR **Forests** Boulogne 48FR, Q(Si) 49FA, Q 51B, FR, PO, Q(Sp+) 53Q Fiennes 56Q Desvres 57Q **PIC Forests** Guïnes 68(VH)
- Cladonia fimbriata*: **MAR Dunes** 15AL 18t(B+) 20t 22PIN 27t(La) **Rural** 33CR, FR, SAM 36T **Forests** Boulogne 48CA, FR, Q(Si) 51FR, PO(Si) 53B, FR Desvres 57AC, Q Hardelot 59FR, Q 60FR **PIC Forests** Guïnes 68(VH)
- Cladonia foliacea*: **MAR Dunes** 15t(Sp, Sr) 18t 24t(Sé) 27t(D, La, Si, VH)
- Cladonia furcata* subsp. *furcata*: **MAR Dunes** 15t(B+, Sp) 16t 17t(B) 18t(B) 20t(B+) 27t(D, La)
- Cladonia furcata* subsp. *subrangiformis*: **MAR Dunes** 15t(B, Sp) 16t(B) 17t(B+) 18t(B) 20t(B)
- Cladonia grayi* s. l.: **MAR Dunes** 18t(B) (*C. novochlorophaea*) 27t(D)
- Cladonia humilis*: **MAR Rocks** 6ar(Sp) 7t(Sp) **Dunes** 15t(B, Sp) 18t(B) 20t(B+) **BOUL Rural** 33CR
- Cladonia macilentata*: **MAR Dunes** 18t(B+) **BOUL** Fiennes 56Q(Sp)
- Cladonia ochrochlora*: **MAR Dunes** 22PIN(D, Si)
- Cladonia parasitica*: **BOUL Forests** Desvres 58(R) **PIC Forests** Montcavrel 65(R)
- Cladonia pyxidata* subsp. *pocillum*: **MAR Dunes** 15t(B) 18t(B+) 20t(B+)
- Cladonia ramulosa*: **MAR Dunes** 15t 18t 24t(Sé) 27t(D, La, VH)
- Cladonia rangiformis*: **MAR Dunes** 15t(B+, Sp) 17t 18t 20t(B+) 21t(VH) 22t 24t(Sé) 27t(D, La, VH)
- Cladonia subulata*: **MAR Dunes** 15t(B+) 18t(B+)
- Cladonia uncialis* subsp. *biuncialis*: **MAR Dunes** 27t(D, VH)
- \**Cladoniicola staurospora* Diederich, van den Boom & Aptroot: **MAR Dunes** 27t(D) on *Cladonia grayi* s. l. [see DIEDERICH *et al.* 2002]
- Clauzadea metzleri*: **MAR BOUL Lime** 45li(Sp) **Grasslands** 63li, pb(B, Sp)
- Clauzadea monticola*: **MAR Rocks** Gris-Nez 1ss(Sp) 2ss 4ss(B)
- Cliostomum flavidulum*: see above (Notes on interesting species)
- Cliostomum griffithii*: **MAR Dunes** 15FR(Sp) 16SAL(Sé) 21(VH) 22Q(D, Si) **BOUL Rural** 29AL, FR, SAL(D) 31FR(Sp) 43AC **Forests** Boulogne 48FR(D, Si) 49Q(Sp) Hardelot 59PO, Q(D) 61FR(Ba+) **PIC Forests** Guïnes 67FA, FR 68(VH)
- \**Clypeococcum hypocenomyces*: **MAR** 22PIN(D) on *Hypocenomyce scalaris*
- Cryptolechia carneolutes*: see above (Notes on interesting species)
- Collema crispum*: **BOUL Lime** 45li(Sp+) **Forests** Boulogne 48t(Si)
- Collema furfuraceum*: a specimen collected by Barkman in Baincthun (E22.56, on *Ulmus*, 1954, Barkman 4752, kept in L, det. Degelius), has been examined
- Collema tenax*: **MAR Rocks** Gris-Nez 1t(D) 2ss(B) 4ar, ss(B, Sp) 5t(D) Poulet 7li, ss(B+, Sp) **Ambleteuse** 10art **Dunes** 20t(B+) **BOUL Forests** Boulogne 48t(Si)
- \**Didymellopsis collematum*: see above (Notes on interesting species)
- Dimerella pineti*: **MAR Dunes** 22B, PIN(D, Si) **BOUL Rural** 31FR, Q, SAL 33FR **Forests** Boulogne 48FR(D+) 49FA 51PIC, PIN(Si) 52(VH) Desvres 57Q(D+) **PIC Forests** Guïnes 66PS 68(VH)
- Diploicia canescens*: **MAR Rocks** Gris-Nez 3ss(Sé+) 4ar(B+) 5LY(D) **Ambleteuse** 10art **Dunes** 15EU **BOUL Rural** 28AC 29FR(D, Si) 31art(Sp+) 32ss 33art 34ss, AE, T 35art 36T(Sp+) 37AC(VH) 43AC **PIC Rural** 64T(VH); see also DELZENNE-VAN HALUWYN (1973a)
- Diploschistes muscorum*: **MAR Dunes** 15t(Sp) 18t(B+) 27t(D+) on *Cladonia foliacea*)
- \**Endococcus* sp. nov. ined.: **MAR Rocks** Gris-Nez 5LY(D) Oies 11ss(D) Wimereux 13art(De) **BOUL Grasslands** 63art(Sé) on *Rinodina gennarii*; as the four specimens are quite scanty, we prefer to await the discovery of additional and better developed material before describing this species
- Enterographa crassa*: **MAR Dunes** 15AL, FR 22Q **BOUL Rural** 29FR 31FR 37AC(VH) 43AC **Lime** 45U(Sp) **Forests** Boulogne 48CA, FR(D, Si), Q 49FA, Q 50FR(B) 51FR, PO, Q 52(VH) 53CO, FR, Q(D) 54CA, FR, Q(Sp) 55FR(Sp+) Fiennes 56Q Desvres 57CA, FR Hardelot 59CA, FR, Q 60CA, FR, Q(Si) 61FR(B, Ba+) **PIC Forests** Guïnes 67FA, FR, Q 68(VH)
- Evernia prunastri*: **MAR Dunes** 15t, EU, FR(B, Sp) 18t



- 19SAL(B) 21t(VH) 22FR,PIN,Q **BOUL Rural** 28AC 29AL,FR 31FA,Q 32SAL 33wo,CR,FR,SAM 43AC **Forests** Boulogne 48CA,PA,Q 50FR(B) 51AL,FR,PO,Q(Sp+) 53B,FR,Q Desvres 57Q Hardelot 59AL,PO,Q,SAL(Si) 60FR,Q **PIC Forests** Guînes 67FA 68(VH)
- Fellhaneropsis vezdae*: **BOUL Forests** Boulogne 48FR(D) 52(VH) 53FR(D+) Desvres 57FR(D+) **PIC Forests** Guînes 66Q(Sp)
- Flavoparmelia caperata*: **MAR Dunes** 15AL,FR 21(VH) 22B,FR,Q **BOUL Rural** 29SAL 33wo,CR,FR(Sp) 37AC(VH) 40T(B) 43AC **Forests** Boulogne 48FR,PA,Q 49Q(Sp) 50Q(B) 51PO,Q 52(VH) 53B,FR,Q Fiennes 56Q Hardelot 59AL,FR,PO,Q,SAL 60FR,Q **PIC Rural** 64T(VH) **Forests** Guînes 68(VH); see also DELZENNE-VAN HALUWYN (1973a)
- Fuscidea lightfootii*: **BOUL Forests** Hardelot 59SAL(D fertile !)
- Graphina anguina*: see above (Notes on interesting species)
- Graphis elegans*: **BOUL Forests** Boulogne 50AL(B) 51AL(Sp) 52(VH) 53B(D,Si) Fiennes 56FR(Sp) Desvres 57AL(D,Si) Hardelot 61B(B) **PIC Forests** Montcavrel 65(Sé) Guînes 68(VH)
- Graphis scripta*: **BOUL Rural** 29FR **Forests** Boulogne 48CA(Si) 49FA 50FR(B+) 51AL,FR(Sp),CO 52(VH) 53AL,B,CO,FR 54CA,FR(Sp+) Fiennes 56AC,Q Desvres 57AL,CA(D,Si) 58CO(B) Hardelot 59CA,FR,HE,Q,SAL 60CA 61CA(B) **PIC Forests** Montcavrel 65(Sé+) Guînes 67FA 68(VH)
- Gyalecta jenensis*: **BOUL Lime** 45li(Sp)
- Gyalecta truncigena*: **BOUL Rural** 42U(B)
- Gyalidea minuta*: see above (Notes on interesting species)
- Gyalideopsis anastomosans*: **BOUL Rural** 33CR,FR(Sp) **Forests** Boulogne 53FA(D) Desvres 57FR(D+) Hardelot 59AL,CO(D,Si) **PIC Forests** Guînes 67wo(Sp)
- Hyperphyscia adglutinata*: **BOUL Rural** 34AE(Sp) 36T(Sp+); this species is also present in a specimen of *Phaeophyscia nigricans* collected by Barkman in Baincthun (E22.56, on *Ulmus*, 1954, Barkman 4754, kept in L)
- Hypocomyce scalaris*: **MAR Dunes** 22PIN(D,Si)
- Hypogymnia physodes*: **MAR Dunes** 15t,FR(Sp) 18t 22B,FR,PIN **BOUL Rural** 33wo,CR,SAM **Forests** Boulogne 48FR,PA 52(VH) 53B Desvres 57Q Hardelot 59AL,SAL **PIC Forests** Guînes 68(VH); see also DELZENNE-VAN HALUWYN (1973a)
- Hypogymnia tubulosa*: **MAR Dunes** 15t **BOUL Forests** Boulogne 48FR Hardelot 59AL,SAL; see also DELZENNE-VAN HALUWYN (1973a)
- Hypotrachyna revoluta*: **MAR Dunes** 22Q **BOUL Rural** 29M,SAL 31FA,Q 32SAL 33CR(Sp) **Forests** Boulogne 48FR(D,Si) 51PO 52(VH) 53B,FR Fiennes 56Q Hardelot 59AL,CA,FR,PO,Q,SAL(D+) 60FR,Q **PIC Rural** 64T(VH) **Forests** Montcavrel 65(Sé) Guînes 68(VH)
- Lecanactis abietina*: **BOUL Forests** Boulogne 52(VH) 53FR,Q(D,Si)
- Lecania atrynoides*: see above (Notes on interesting species)
- Lecania cyrtella*: **PIC Forests** Guînes 67FA(Sp+)
- Lecania erysibe*: **MAR Rocks** Gris-Nez 1ss(VH) 4ss(Sé+) Ambleteuse 10art(D+) Wimereux 13art(De+) **BOUL Rural** 31art **Grasslands** 63art(Sé+)
- Lecania naegelia*: **MAR Dunes** 19SAM(B) **BOUL Rural** 36T(Sp)
- Lecania rabenhorstii*: **MAR Rocks** Ambleteuse 9art(Sp) **BOUL Rural** 31art(Sp+)
- Lecanora albescens*: **MAR Rocks** Gris-Nez 1ss(D,Si+,Sp+) 2ss(Sp+) 3ss(Sé+) 4ss(Sé+,Sp) Poulet 6art 7ss(Sp) Ambleteuse 9art,ss(Sp) 10art,ss(D+) Oies 11ss(D) **Dunes** 15art 18pb,ss(Sp+) **BOUL Rural** 29art 31art(Sp+) 33art(Sp+) 35art 36art(Sp+) **Lime** 45li(Sp+)
- Lecanora argentata*: **BOUL Rural** 31FA 40T(B) **Forests** Boulogne 48FR(D) 51PO 54FR(Sp) Fiennes 56Q(Sp) Hardelot 59PO(D) 60FR(D) 61CA,FR,Q(B,Ba) **PIC Forests** Guînes 66Q 67FA,FR
- Lecanora campestris*: **MAR Rocks** Gris-Nez 4ss(B) **BOUL Rural** 29art(Si) 31art 32ss 33art 35art
- Lecanora carpinea*: **BOUL** 28AC 32SAL 33CR **Forests** Boulogne 48CA(D) Hardelot 60CA 61FR(Ba+) **PIC Rural** 64T(VH) **Forests** Guînes 68(VH)
- Lecanora chlorotera*: **MAR Dunes** 15AL,EU,FR 20PO 22Q(D) **BOUL Rural** 28AC 29FR(D+) 31AC,FR,Q 32SAL 33wo(Sp+) 34AE 36T 37AC(VH) **Forests** Boulogne 48FR(Si) 49FA 50FR(B) 53FR(D+) Hardelot 59CA,FR(D+) 61FR(Ba+) **PIC Forests** Guînes 68wo(Sé+)
- Lecanora compallens*: **MAR Dunes** 18wo(B)
- Lecanora conizaeoides*: **MAR Dunes** 22PIN **BOUL Rural** 29wo(D+) 31Q 33wo,CR **Forests** Boulogne 49FA **PIC Forests** Guînes 68(VH); see also DELZENNE-VAN HALUWYN (1973a)
- Lecanora crenulata* Hook.: **MAR Rocks** Wimereux 13art(De+)
- Lecanora crenulata* auct., non Hook.: **MAR Rocks** Gris-Nez 1ss(Sé) 2ss(B+) 4ss(B) 10art(D) **BOUL Rural** 35art **Lime** 45li [see DIEDERICH & SÉRUSIAUX 2000 for comments on the use of this name]



- Lecanora dispersa* : **MAR Rocks** Gris-Nez 1ss(Sp+) 4ss(B+) Poulet 6ar(Sp) 7ss **Dunes** 15art **BOUL Rural** 28AC(Sp) 33art 35art 36T 44art (B+) **Grasslands** 63art(Sé+)
- Lecanora expallens* : **MAR Dunes** 15AL,EU,FR 20PO 22FR,Q **BOUL Rural** 28AC(Sp) 29wo,FR,M,SAL(D+) 31Q,SAL 33wo,CR,FR 34AE,T(Sp) 36T(Sp+) 43AC **Forests** Boulogne 48Q 49FA 52(VH) 53Q 54FR 55FR(Sp+) Fiennes 56Q Desvres 57Q Hardelot 59CA,FR,PO,SAL(D+) 60CA,FR,Q 61(Ba+) **PIC Rural** 64T(VH) **Forests** Guïnes 67FA
- Lecanora hagenii* : **MAR Rocks** Gris-Nez 4ar(B) **Dunes** 17SAM(Sp+) 18pb(Sp+) 20PO(B+) **BOUL Rural** 28AC(Sp) 32ss(Sp+) 33wo,CR
- Lecanora horiza* : **BOUL Rural** 35art ; several specimens of this species, collected by Barkman in Belle-et-Houllefort (E22.58 ?, on *Ulmus*, 1954, Barkman 4540, kept in L) and Wissant (D22.56, on *Juglans*, 1954, Barkman 4531 ; on *Ulmus*, 1954, Barkman 4735, kept in L), have been examined ; they were published by BARKMAN (1990) as *L. laevis* ; the relationship between both taxa has still to be further investigated.
- Lecanora jamesii* : see above (Notes on interesting species)
- Lecanora symmicta* : **MAR Dunes** 15wo(Sp),AL(Sp) 20PO 22B(D) **BOUL Rural** 29FR(D+) 31Q 32SAL 33CR **PIC Forests** Guïnes 68wo(Sé+)
- Lecanora varia* : **BOUL PIC Forests** Guïnes 68wo(Sé)
- Lecidella elaeochroma* (incl. f. *soralifera*) : **MAR Rocks** Gris-Nez 1tr **Dunes** 15EU,FR 17SAM 20PO 21PO(La) 26wo(Sé) **BOUL Rural** 28AC 29wo,AL,FR,SAL(D+) 31AC,FA,FR,Q 32SAL 33CR,FR 36T **Lime** 45FR **Forests** Boulogne 48CA,FR 49FA 53FR 54CA,FR(Sp+) Fiennes 56AC Desvres 57CA,Q Hardelot 59CA,PO(Si) 60FR 61(Ba+) **PIC Forests** Guïnes 67FR 68wo(Sé+,VH)
- Lecidella scabra* : **BOUL Rural** 35art
- Lecidella stigmatea* : **BOUL Rural** 29art **Forests** Boulogne 51art
- Lepraria incana* : **MAR Dunes** 15AL,EU 22Q **BOUL Rural** 31AC,FA,Q,SAL 33CR,FR,SAM 36T(Sp+) **Forests** Boulogne 48FR,PA,Q(D) 49Q 51Q 53Q 54FR Fiennes 56Q Desvres 57CA(D) Hardelot 59Q 60CA,FR(D)
- Lepraria lobificans* : **MAR Dunes** 15AL 22PIN **BOUL Rural** 29FR,M 31Q 33FR 34AE 36T **Lime** 45FR,U(Sp) **Forests** Boulogne 48AC,CA(D,Si) 51AL,FR,PO 53B,FR 54Q(Sp+) Fiennes 56Q(Sp) Desvres 57AC Hardelot 59AL,Q(D) 60CA,Q 61(Ba+) **PIC Forests** Guïnes 67FA
- Lepraria rigidula* : **BOUL Forests** Boulogne 48FR(D) [TLC : atranorin and nephrosteranic acid]
- Leproloma vouauxii* : **BOUL Rural** 29FR,M(Si) **Forests** Hardelot 60FR(D+)
- Leptogium gelatinosum* : **MAR Dunes** 18t(B)
- \**Lichenocodium lecanorae* : **BOUL PIC Forests** Guïnes 68wo(Sé+) on *Lecanora varia*
- \**Lichenodiplis lecanorae* : **MAR Dunes** 20PO(B) on *Lecanora hagenii* **BOUL Rural** 29wo(D) on *L. conizaeoides*
- \**Lichenosticta alcicornaria* : **MAR Dunes** 27t(D) on *Cladonia squamules*
- Lichina confinis* : see above (Notes on interesting species)
- Lobaria pulmonaria* : see above (Notes on interesting species)
- Melanelia exasperatula* : **BOUL Rural** 40T(B) **PIC Rural** 64T(VH) **Forests** Guïnes 67wo(Sp)
- Melanelia glabratula* subsp. *glabratula* : **MAR Dunes** 22Q **BOUL Rural** 29AC,SAL 33CR **Forests** Boulogne 48FR(Si) 51PO(Sp+) 52(VH) 53FR(Si) Fiennes 56AC,Q(Sp) Hardelot 59FR,PO,Q(Si) 60FR 61FR(B) **PIC Rural** 64T(VH) **Forests** Guïnes 68(VH)
- Melanelia subaurifera* : **MAR Dunes** 15FR,EU 19SAL(B) 22B **BOUL Rural** 29wo,AL(D+) 31FA,FR,SAM 32SAL 33wo,CR **Forests** Boulogne 48FR(Si+) 50Q(B) 52(VH) **PIC Forests** Guïnes 67FA 68(VH)
- Micarea denigrata* : **MAR Dunes** 15wo **BOUL Rural** 29wo(D) 33wo(Sp+)
- Micarea peliocarpa* : **BOUL Forests** Desvres 57Q(D)
- Micarea prasina* : **MAR Dunes** 15AL **BOUL Rural** 31Q 33FR(Sp+) **Forests** Boulogne 48FR(D) 53FR(D) 54FR(Sp) Fiennes 56Q Desvres 57AL,FR(D+) **PIC Forests** Guïnes 66Q(Sp)
- Micarea viridileprosa* Coppins & van den Boom : **MAR** 22PIN [see VAN DEN BOOM & COPPINS 2001]
- \**Muellerella lichenicola* : **MAR Rocks** Gris-Nez 1ss(D) on *Caloplaca flavescens* and *Verrucaria* cf. *viridula*, Si+ on *Verrucaria macrostoma* 4ss(Sé+ on *V. macrostoma*, Sp on *Lecanora albescens* and *Verrucaria* sp.)
- (+)*Mycomicrothelia confusa* : see above (Notes on interesting species)
- +*Naetrocymbe punctiformis* : **MAR Dunes** 15AL(Sp+) **BOUL Rural** 29FR(D) 31Q(Sp) **Forests** Boulogne 47FR(Sr)
- \**Nectriopsis micareae* : **MAR Dunes** 22PIN(D) on *Micarea viridileprosa*
- Normandina acroglypta* : **MAR Dunes** 15FR(Sp) **BOUL Forests** Boulogne 52(VH)



- Normandina pulchella* : **MAR Dunes** 21(VH) **BOUL Forests** Boulogne 48FR(D,Si) 52(VH) Fiennes 56Q(Sp) Desvres 57AC,CA(D) Hadelot 60FR(D) **PIC Forests** Guînes 67FA 68(VH); see also DELZENNE-VAN HALUWYN (1973a)
- Ochrolechia androgyna* : **BOUL Forests** Boulogne 48Q(D) **PIC Forests** Guînes 68(VH)
- Ochrolechia subviridis* : **BOUL Forests** Boulogne 47FR(Sr) 48FR(D) 52(VH) Desvres 58(R) Hadelot 61FR(B)
- Ochrolechia turneri* : **BOUL Forests** Desvres 58(R)
- Opegrapha atra* : **MAR Rocks** 5LY(D) **BOUL Rural** 29FR,M(Si) 36T 42U(B) 43AC **Forests** Boulogne 52(VH) Desvres 57CA,FR(D) Hadelot 59HE(Si) 60CA(D) 61CA,FR(B,Ba+)
- Opegrapha calcarea* : see above (Notes on interesting species)
- Opegrapha culmigena* (= *O. herbarum*) : **MAR Rocks** 5LY(D) **Dunes** 15FR(Sp) **BOUL Lime** 45U(Sp) **Forests** Hadelot 61(Ba)
- Opegrapha niveoatra* (= *O. vulgata* var. *subsiderella*) : **MAR Dunes** 15FR(Sp+) **BOUL Rural** 29FR(D) 31FR 34AE(Sp) 37AC(VH) **Lime** 45FR(Sp) **Forests** Hadelot 59FR(D) 60FR(D) 61(Ba+) **PIC Forests** Guînes 67FA
- Opegrapha ochrocheila* : **MAR Dunes** 15SAM(Sp) **BOUL Rural** 31SAM(Sp)
- Opegrapha rufescens* : **BOUL Rural** 31Q(Sp+) **Forests** Boulogne 48FR(D) 54FR(Sp) Desvres 57FR(D,Si) Hadelot 59FR(D,Si) **PIC Forests** Guînes 67FA
- Opegrapha saxatilis* : see above (Notes on interesting species)
- Opegrapha soreidiifera* : see above (Notes on interesting species)
- Opegrapha varia* : **MAR Rocks** 5LY(D) **Dunes** 15SAM(Sp) **BOUL Rural** 30U(B) 31FR 36T(Sp) 42U(B) **Lime** 45U(Sp) **PIC Forests** Guînes 67FA,Q
- Opegrapha vermicellifera* : **BOUL Rural** 30U(B)
- Opegrapha vulgata* : **MAR Dunes** 15FR **BOUL Rural** 31FR,Q(Sp) 42U(B) **Forests** Boulogne 54CA(Sp) Desvres 57CA(D) Hadelot 61CA(B) **PIC Forests** Guînes 67FR,Q 68(VH); two additional specimens, collected by Barkman in Wissant (D22.56, on *Juglans*, 1954, Barkman 4524, 4535, kept in L) have been examined by us
- Pachyphiale carneola* : **PIC Forests** Montcavrel 65U [specimen NMW 86.22.3341 !]
- Parmelia saxatilis* : **BOUL Rural** 33FR(Sp) **Forests** Boulogne 48FR 53FR; see also DELZENNE-VAN HALUWYN (1973a)
- Parmelia sulcata* : **MAR Dunes** 15AL,FR,EU 17SAM 20PO 21(VH) 22AL,B,FR,PO,Q **BOUL Rural** 29AC,AL,M,SAL 31FA,FR,SAL,SAM 33wo,CR,FR,SAM 34T 43AC **Forests** Boulogne 48FR(Si+) 51PO 52(VH) 54CA Desvres 57Q Hadelot 59AL,PO,Q,SAL **PIC Forests** Guînes 66Q 67FA 68(VH); see also DELZENNE-VAN HALUWYN (1973a)
- Parmelina tiliacea* : **BOUL Rural** 37AC(VH) **PIC Rural** 64T(VH); a specimen collected by BARKMAN in Mont-Lambert (Boulogne, E22.55 ?, on *Fraxinus*, 1954, Barkman 4612, kept in L) has been examined; see also DELZENNE-VAN HALUWYN (1973a)
- Parmotrema chinense* : **MAR Dunes** 15AL,FR(Sp) 21(VH) 22Q **BOUL Rural** 29SAL 31AC,FA 32SAL 33wo,FR,SAM **Forests** Boulogne 48FR,Q(D,Si) 50AC(B) 51FR,PO 52(VH) 53FR 54Q(Sp) Fiennes 56AC,Q Hadelot 59CA,PO,Q, SAL(D,Si) 60FR **PIC Forests** Guînes 67FA,FR 68(VH); see also DELZENNE-VAN HALUWYN (1973a)
- Peltigera hymenina* : **MAR Dunes** 27t(Sé)
- Peltigera membranacea* : **MAR Dunes** 27t(Sé)
- Peltigera neckeri* : **MAR Dunes** 15t(B) 25t
- Peltigera rufescens* : **MAR Dunes** 15t(B,Sp) 18t 24t(Sé) 25t 27t(La) **Lime** 45t(Sp)
- Pertusaria albescens* : **BOUL Rural** 37AC(VH) **Forests** Boulogne 51PO(Sp) Desvres 57Q **PIC Forests** Guînes 68(VH)
- Pertusaria amara* : **MAR Dunes** 15FR 22FR,Q **BOUL Rural** 33CR **Forests** Boulogne 48CA,FR,PA,Q 51PO(Sp) 52(VH) 53FR 54CA(Sp) Fiennes 56Q(Sp) Hadelot 59AL,CA,FR,PO,Q,SAL 60CA(Si) **PIC Forests** Guînes 67FA 68(VH)
- Pertusaria coccodes* : **BOUL Forests** Boulogne 52(VH) **PIC Forests** Guînes 68(VH)
- Pertusaria flavida* : **BOUL Forests** Boulogne 51PO(Sp) Fiennes 56Q(Sp)
- Pertusaria hemisphaerica* : **BOUL Forests** Boulogne 49Q(Sp) 50FR(B) 51PO(Sp),FR,Q 52(VH) 53Q(Si) Desvres 57Q
- Pertusaria hymenea* : **BOUL Rural** 29FR 31FR(Sp) **Forests** Boulogne 48CA,FR(D,Si) 51FR,Q 52(VH) 53CO(D) 54FR(Sp) Fiennes 56FR(Sp),Q Desvres 57AC,CA,Q(D) Hadelot 59FR 60CA,FR,Q 61FR(B) **PIC Forests** Guînes 67FR 68(VH)
- Pertusaria leioplaca* : **BOUL Rural** 43AC **Forests** Boulogne 48CA(D) 49FA 50FR(B) 51AL,FR(Si,Sp) 52(VH) 53CO,FR Fiennes 56AC(Sp) Desvres 57CA 58CO(B) Hadelot 59CA 60CA 61FR(B) **PIC Forests** Guînes 67FA 68(VH)
- Pertusaria multipuncta* : **BOUL Forests** Boulogne 53FR(D,Si)
- Pertusaria pertusa* : **BOUL Rural** 37AC(VH) **Forests** Boulogne 51PO 52(VH) 53CO,FR,Q 54FR,Q 55FR(Sp) Desvres 57Q Hadelot 59CA,PO



- 61FR(B,Ba+) **PIC Forests** Guînes 67FA(Sp) 68(VH)
- Phaeographis inusta* : see above (Notes on interesting species)
- Phaeographis smithii* : see above (Notes on interesting species)
- Phaeophyscia nigricans* : several epiphytic specimens collected by Barkman in Belle-et-Houllefort (E22.58 ?, on *Ulmus*, 1954, *Barkman* 4541, kept in L), between Oye-Plage and Marck (D21.34 ?, on *Ulmus*, 1954, *Barkman* 4541, kept in L) and Baincthun (E22.56, on *Ulmus*, 1954, *Barkman* 4754 p. p., kept in L) have been examined
- Phaeophyscia orbicularis* : **MAR Rocks** Gris-Nez 4ss(Sé+) Wimereux 13art(De+) **Dunes** 15art **BOUL Rural** 28AC 29art 31art,SAM(Sp) 33wo,SAM(Sp+) 37AC(VH) 43AC **PIC Rural** 64T(VH) **Forests** Guînes 67FA
- Phlyctis agelaea* : **BOUL Forests** Desvres 57FR(D) Hardelot 60CA(D,Si)
- Phlyctis argena* : **BOUL Rural** 31FR 33CR 43AC **Forests** Boulogne 48FR(D) 49Q 51PO 53FR 54FR Fiennes 56Q(Sp) Desvres 57CA,FR(D) Hardelot 59FR,PO,SAL(D,Si) 60FR **PIC Forests** Guînes 67FA 68(VH)
- Physcia adscendens* : **MAR Rocks** Gris-Nez 1ss 4ar,ss(B+) **Dunes** 15art,FR 17SAM(Sp+) 21PO(La) **BOUL Rural** 28AC 29art,wo,AL 31SAM 32SAL 33art,CR,FR,SAM 34AE 37AC(VH) 43AC **Forests** Boulogne 48FR Hardelot 59PO 61FR(Ba+) **PIC Rural** 64T(VH) ; see also DELZENNE-VAN HALUWYN (1973a)
- Physcia aipolia* : see DELZENNE-VAN HALUWYN (1973a) ; a specimen from Baincthun (E22.56), kept in L, and published under this name by BARKMAN (1990 : 18), has been examined by us and proved to be *Physconia distorta*
- Physcia caesia* : **BOUL Rural** 31art 33art 35art
- Physcia clementei* : specimens from Belle-et-Houllefort (E22.58 ?, 1954, *Barkman* 4539, kept in L) and at 4 km W of Gravelines (D21.35, 1954, *Barkman* 4597, kept in L) have been examined
- Physcia leptalea* (= *P. semipinnata*) : **MAR Dunes** 23SAL(B) ; specimens collected by BARKMAN in Ambleteuse (E22.35 ?, sur *Populus* à la lisière d'un bocage ouvert de peupliers, 1954, *Barkman* 4631, kept in L) and Hardelot-Plage (F22.24, dunes maritimes, sur branches de *Betula*, 1954, *Barkman* 4648, kept in L) have been examined ; see also DELZENNE-VAN HALUWYN (1973a) ; following COPPINS (pers. comm.), the correct name for this species is *P. leptalea* and not *P. semipinnata*
- Physcia stellaris* : **BOUL** Boulogne 48FR(D)
- Physcia tenella* : **MAR Dunes** 15art,EU,FR 17SAM(Sp+) 18pb(Sp+) **BOUL Rural** 28AC 29AC,M,SAL 31FA,SAM 32SAL 33art,wo,CR,FR, SAM 34AE 35art 37AC(VH) **Lime** 45U **Forests** Boulogne 48FR(Si+) Hardelot 59AL,Q 61FR(Ba+) **PIC Rural** 64T(VH) **Forests** Guînes 66Q 67wo 68(VH) ; see also DELZENNE-VAN HALUWYN (1973a)
- Physconia distorta* : **MAR Dunes** 15FR(Sp) **BOUL Rural** 37AC(VH) 40T(B) **PIC Forests** Guînes 68(VH) ; see also DELZENNE-VAN HALUWYN (1973a) and above under *P. aipolia*
- Physconia grisea* : **BOUL Rural** 29art 33art 34AE(Sp) 35art 37AC(VH) **PIC Rural** 64T(VH) ; see also DELZENNE-VAN HALUWYN (1973a)
- Placidium squamulosum* : **MAR Rocks** Gris-Nez 4t(B) **BOUL Lime** 45li(Sp+)
- Placopyrenium trachyticum* : **MAR Rocks** Gris-Nez 4ss(Sp) **BOUL Rural** 31art(Sp)
- Placynthiella dasaea* : **MAR Dunes** 22B(D+)
- Placynthiella icmalea* : **MAR Dunes** 18t(B+) **BOUL Rural** 33wo
- Placynthium nigrum* : **BOUL Grasslands** 63li(B+)
- Pleurosticta acetabulum* : **BOUL Rural** 28AC 37AC(VH) 40T(B) 43AC **PIC Rural** 64T(VH) **Forests** Guînes 68(VH) ; see also DELZENNE-VAN HALUWYN (1973a)
- Porina aenea* : **MAR Dunes** 15AL,FR **BOUL Rural** 31AC,FR,U **Lime** 45FR,U **Forests** Boulogne 48CA(Si),FR(D) 49FA 53CO,FR Fiennes 56AC,FR Desvres 57CA Hardelot 59B(Si),CA 60CA,FR(Si) **PIC Forests** Guînes 66PS 67FA 68(VH)
- Porina leptalea* : **BOUL Forests** Boulogne 48CA(Si) Desvres 57CA(D+) Hardelot 60CA **PIC Forests** Guînes 66PS,Q(Sp)
- Protoblastenia rupestris* : **BOUL Forests** Boulogne 51art **Grasslands** 63li(B+,Sp)
- Psoroglaena stigonemoides* : **BOUL Rural** 31SAM(Sp)
- Punctelia subrudecta* : **MAR Dunes** 15FR 22B,FR,Q **BOUL Rural** 28AC 29AC,AL 31FA,SAM(Sp) 33wo,CR,FR(Sp) **Forests** Boulogne 48FR(D) Fiennes 56AC Hardelot 59AL,PO,Q,SAL(D) ; see also DELZENNE-VAN HALUWYN (1973a)
- Punctelia ulophylla* : **BOUL Rural** 29AC,AL,M, SAL(Si) 33CR(Sp) **Forests** Hardelot 59Q
- Pyrenocollema halodytes* s. l. : **MAR Rocks** Gris-Nez 1ss(B,D,Si) 2ss(B+) 4ss(B,Sp) Ambleteuse 9ss 10ss(D+) Oies 12ss(Sp) Boulogne 14ss(La)
- Pyrenula chlorospila* : **MAR Dunes** 15FR(Sp) 21(VH, sub *P. nitidella*) **BOUL Rural** 29FR(D,Si) 43AC **Forests** Boulogne 48FR(D,Si) 50FR(B) 53FR(D) 54FR(Sp) Desvres 57FR(D) Hardelot 59CA(D,Si)



- 60CA,FR(D,Si) 61CA,FR(B) **PIC Forests** Guînes 68(VH, sub *P. nitidella*)
- Pyrenula macrospora* : **BOUL Forests** Desvres 58(R)
- Pyrrhospora querneae* : **MAR Dunes** 22FR **BOUL Forests** Boulogne 48CA,FR,Q(D,Si) 49Q 51FR,PO, Q(Sp) 52(VH) 53FR 54FR(Sp) Fiennes 56AC(Sp) Desvres 57Q Hadelot 59FR,PO,Q,SAL(D+,Si) 60FR **PIC Forests** Guînes 67FA,FR 68(VH)
- Ramalina farinacea* : **MAR Dunes** 15t(Sp) 19SAL(B) 20PO 22FR,Q **BOUL Rural** 28AC 29AC,FR,SAL 31AC,FA,Q,SAM 32SAL 33wo,FR,SAM 37AC(VH) 40T(B) 43AC **Forests** Boulogne 48CA,FR(Si+) 50FR,Q(B) 51PO(Si) 52(VH) Hadelot 59AL,CA,FR,PO,Q,SAL(Si) 60FR **PIC Forests** Guînes 67FR 68(VH) ; see also DELZENNE-VAN HALUWYN (1973a)
- Ramalina fastigiata* : **MAR Rocks** Gris-Nez 1tr **Dunes** 15t,AL,FR(B,Sp) 19SAL(B) 22Q **BOUL Rural** 29AC,FR 31AC,FA,FR,Q(Sp) 32SAL 33wo,FR 37AC(VH) 40T(B) 43AC **Forests** Boulogne 48FR(D,Si) Fiennes 56Q Hadelot 59AL,FR, PO,Q,SAL(D,Si) 60CA,FR 61(Ba+) **PIC Rural** 64T(VH) **Forests** Guînes 67FA ; see also DELZENNE-VAN HALUWYN (1973a)
- Ramalina fraxinea* : **MAR Dunes** 15PO(Sr) **BOUL Rural** 37AC(VH) 38FR(VH) **PIC Rural** 64T(VH) ; see also DELZENNE-VAN HALUWYN (1973a)
- Ramalina lacera* : see above (Notes on interesting species)
- Rinodina gennarii* : **MAR Rocks** Gris-Nez 1ss(D,Si+) 4ar,ss,wo(B+,Sé+) 5LY(D) 6art 7ss(Sp) Ambleteuse 9art(Sp+) Oies 11ss(D+) Wimereux 13art(De+) **Dunes** 18pb(Sp) **BOUL Rural** 28AC 31art 33art **Grasslands** 63art(Sé+)
- Rinodina pityrea* : **BOUL Rural** 28AC(Sp)
- \**Roselliniopsis tartaricola* : **BOUL Forests** Boulogne 51Q(D) on *Pertusaria hemisphaerica*
- Sarcogyne regularis* : **MAR Rocks** Gris-Nez 4ss(Sé+) Poulet 7ss(Sp) Ambleteuse 9art(Sp) **Dunes** 18pb,ss(B) **BOUL Rural** 31art(Sp+) 35art **Lime** 46li
- \**Sarcopyrenia gibba* var. *geisleri* : **BOUL Rural** 29art(D on *Caloplaca* sp.) 34ss
- Schismatomma decolorans* : **MAR Dunes** 15FR(Sp) **BOUL Rural** 36T(Sp) 43AC **Forests** Boulogne 52(VH) Hadelot 59Q(D,Si) 60FR(D) **PIC Forests** Guînes 68(VH)
- Scoliciosporum chlorococcum* : **BOUL Rural** 29FR(D+)
- Scoliciosporum gallurae* : **MAR Dunes** 20PO(B)
- Solenopsora candicans* : **MAR Rocks** Gris-Nez 1ss(VH, sub *Buellia glaucoatra*) 4ss(B,Sé+) 6ss(Sp) Poulet 7ss(Sp)
- +*Stenocybe pullatula* : **BOUL Forests** Hadelot 59AL(D,Si)
- \**Stigmidium microspilum* : **BOUL Forests** Boulogne 48CA(D,Si) 53CO(D) Desvres 57CA(Si) Hadelot 60FR(Si) all on *Graphis scripta*
- \**Syzygospora bachmannii* : **MAR Dunes** 24t(Sé)
- \**Taeniolella punctata* : **BOUL Forests** Desvres 57FR(D) **PIC Forests** Guînes 67FA(Sp) both on *Graphis scripta*
- Tephromela atra* : **MAR Rocks** Ambleteuse 9art(Sp) **BOUL Rural** 32ss(Sp) 35art **Forests** Boulogne 47FR(Sr) Hadelot 61FR(B) **PIC Rural** 64T(VH)
- Toninia aromatica* : **MAR Rocks** Gris-Nez 1ss(D,Si,Sp+) 4ss,t(B,Sé+) 7ss(Sp) **BOUL Rural** 31art(Sp) 34ss 35art
- Toninia sedifolia* : **MAR Dunes** 18t
- Trapeliopsis granulosa* : **MAR Dunes** 22B(D+) **BOUL Rural** 33wo
- \**Tremella caloplacae* (Zahlbr.) comb. ined. (= *Lindauopsis caloplacae* Zahlbr.) : **MAR Rocks** Gris-Nez 4ss(Sé) on *Caloplaca* sp. This interesting and poorly known species will be studied in more details in a forthcoming paper
- \**Tremella cladoniae* : **BOUL Forests** Boulogne 48FR(D,Si) on *Cladonia fimbriata* (material to be distributed in Santesson *Fungi Lichenic. Exs.*)
- \**Tremella pertusariae* : **BOUL Forests** Boulogne 48FR(D) Hadelot 60CA(D) both on *Pertusaria hymenea*
- Usnea ceratina* : **BOUL Forests** Boulogne 50Q(B) 52(VH) **PIC Forests** Montcavrel 65FR,Q(R,Sé, DELZENNE-VAN HALUWYN 1973a)
- Usnea cornuta* : **BOUL Forests** Boulogne 50Q(B)
- Usnea subfloridana* : **MAR Dunes** 15AL **BOUL Forests** Boulogne 50FR,Q(B) ; see also DELZENNE-VAN HALUWYN (1973a)
- Verrucaria erichsenii* : see above (Notes on interesting species)
- Verrucaria halizoa* : see above (Notes on interesting species)
- Verrucaria macrostoma* : **MAR Rocks** Gris-Nez 1ss(D,Si+) 4ss(Sé+) 7ss(Sp) Ambleteuse 10ss(D+) **BOUL Rural** 31art(Sp+) 34ss 36art(Sp)
- Verrucaria maculiformis* : **MAR Dunes** 18pb(B) **BOUL Grasslands** 63pb(B)
- Verrucaria maura* : see above (Notes on interesting species)
- Verrucaria muralis* : **MAR Rocks** Gris-Nez 1ss(D) 2ss(B) 4ss(B) Poulet 7ss NidCorbet 8ss(Sp) **Dunes** 18pb(B) **BOUL Rural** 29art 31art 34ss 35art **Lime** 45li(Sp) **Grasslands** 63li,pb(B,Sp+)
- Verrucaria nigrescens* : **MAR Rocks** Gris-Nez 1ss(D,Si,Sp) Poulet 6art Ambleteuse 10ss(D)



- BOUL Rural** 29art 31art 35art **Forests** Boulogne 51art
- Verrucaria sandstedei* : see above (Notes on interesting species)
- Verrucaria viridula* : **MAR Rocks** Gris-Nez 4ss(B) **BOUL** 63pb(B)
- Vezeadaea aestivalis* : **MAR** 20t(B)
- \**Vouauxiella lichenicola* : **BOUL Forests** Harelot 59CA(D) on *Lecanora chlarotera*
- Woessia arnoldiana* : **BOUL Forests** Boulogne 50FR(B)
- Woessia caligans* : **MAR Dunes** 18t(B) 20t(B+)
- Woessia delicata* : **BOUL Rural** 30U(B) **Lime** 45U(Sp) **Forests** Harelot 59AL(D,Si)
- Xanthoria calcicola* : **MAR Rocks** Gris-Nez 1ss Wimereux 13art(De+) **Dunes** 15art **BOUL Rural** 31art 33art 34ss 35art **PIC Rural** 64T(VH)
- Xanthoria candelaria* : **MAR Dunes** 15U **BOUL Rural** 29wo(D+) 33art,wo,CR(Sp+)
- Xanthoria fallax* : a specimen collected by BARKMAN between Oye-Plage and Marck (D21.34, on *Ulmus* along a road, 1954, Barkman 4544, kept in L) has been examined
- Xanthoria parietina* : **MAR Rocks** Gris-Nez 1ss 4ar(B+) 5LY(D) Poulet 6art **Dunes** 15art,EU,FR 17SAM(Sp+) 18pb(Sp+) 20PO 23SAL(B+) **BOUL Rural** 28AC 29art,AC,FR,SAL(D+) 31art,FA,SAM 32SAL 33art,wo,CR,FR,SAM 34AE 37AC(VH) **Forests** Boulogne 48FR Harelot 59AL,Q,SAL **PIC Rural** 64T(VH) **Forests** Guînes 67FA,FR 68(VH) ; see also DELZENNE-VAN HALUWYN (1973a)
- Xanthoria polycarpa* : **MAR Dunes** 15U **BOUL Rural** 29wo,FR(D+) 32SAL 33wo,CR,FR(Sp+) **Forests** Boulogne 48FR **PIC Forests** Guînes 68(VH)
- \**Xanthoriicola physciae* : **MAR Rocks** Gris-Nez 5LY(D) on *Xanthoria parietina*
- \**Zwackhiomyces lecanorae* : **MAR Dunes** 18ss(D) on *Lecanora albescens*

#### ACKNOWLEDGEMENTS

We wish to thank warmly Mr A. M. Brand (Leiden, Netherlands) for allowing us to publish all his data concerning the Boulonnais lichen flora, Prof. J. Lambinon for allowing us to study and publish his Boulonnais collections, for useful discussions and comments on our manuscript, Prof. F. Rose and Mr J. L. Spier (Amersfoort, Netherlands) for providing additional field records and herbarium specimens, Dr A. Aptroot and Dr T. Tønsberg for identifying several critical species, Dr Claude Roux for his critical comments on the manuscript, Prof. C. Van Haluwyn for pro-

viding reprints of several papers, Dr Brian Coppins for information on the correct name of *Physcia leptalea*, Dr P. Scholz for information on the nomenclature of *Caloplaca maritima*, Mr Renaud Ward for providing literature on the Boulonnais vegetation, Mr Pieter van den Boom for a loan of the type specimen of *Gyalidea minuta*, and the curators of L and NMW for the loan of specimens in their care.

#### REFERENCES

- ARUP U., 1997. — *Caloplaca maritima*, a misunderstood species in western Europe. *Lichenologist* **29** : 503-512.
- BAILEY R. H., STOTT P. A. & WATTEZ J. R., 1974. — Aperçu sur la végétation lichénique épiphytisque du Haut-Pays d'Artois. *Bull. Soc. Bot. Nord France* **26-27** : 5-16.
- BARKMAN J. J., 1990. — The epiphytic flora and vegetation along the Belgian and northern French coast in the fifties. *Mém. Soc. Roy. Bot. Belg.* **12** : 11-19.
- BASSO F. & SEYTRE L., 1997. — Étude de quelques associations végétales forestières de la forêt domaniale de Desvres (Boulonnais, Nord de la France). *Colloques Phytosociologiques* **27** : 223-240.
- BOREL A., 1952. — Les étages de la végétation lichénique sur le littoral du Boulonnais. *Bull. Soc. Bot. Nord France* **5** : 113-120.
- BOREL A., 1964. — La lichénologie dans le Nord de la France. *Bull. Soc. Bot. Fr.* **111** : 270-280.
- BOULAY N., 1878-1880. — Révision de la flore des départements du Nord de la France, 3 fasc. Lille-Paris.
- BOULY DE LESDAIN M., 1910. — Recherches sur les lichens des environs de Dunkerque : 301 p. Impr. Paul Michel, Dunkerque.
- BOULY DE LESDAIN M., 1914. — Recherches sur les lichens des environs de Dunkerque. 1<sup>er</sup> Supplément : 189 p. Impr. Paul Michel, Dunkerque.
- BOULY DE LESDAIN M., 1920. — Quelques lichens du Pas-de-Calais. *Bull. Soc. Bot. Fr.* **67** : 217-228.
- CLAUZADE G. & ROUX C., 1985. — Likenoj de Okcidenta Eŭropo. Ilustrita determinlibro. *Bull. Soc. Bot. Centre-Ouest Nouv. Sér.*, N. S. **7** : 1-893.
- COURTOIS G. & VAN HALUWYN C., 1998. — Écologie du *Lobaria pulmonaria* en forêt de Boulogne-sur-Mer (Pas-de-Calais) ; intégration du lichen dans la gestion forestière. *Bull. Inf. Ass. Fr. Lichénol.* **23** : 17-21.



- DELZENNE-VAN HALUWYN C., 1973a. — Contribution à l'étude de la distribution des lichens épiphytes dans le Nord de la France. Application au problème de la pollution atmosphérique : 162 p. Thèse de Doctorat, Université de Lille.
- DELZENNE-VAN HALUWYN C., 1973b. — Contribution à l'étude de la distribution des lichens épiphytes dans le Nord de la France. Application au problème de la pollution atmosphérique. *Pollution Atmosphérique* **60** : 415-420.
- DELZENNE C. & GÉHU J. M., 1978. — Sur deux associations épiphytes du *Parmelion caperatae* des plaines et collines françaises. *Documents Phytosociologiques* N. S. **2** : 117-126.
- DIEDERICH P. & SÉRUSIAUX E. (coll. VAN DEN BOOM P. P. G. & BRAND A. M.), 2000. — The lichens and lichenicolous fungi of Belgium and Luxembourg – An annotated checklist : 207 p. Musée national d'histoire naturelle, Luxembourg.
- DIEDERICH P., VAN DEN BOOM P. & APTROOT A. ('2001') 2002. — *Cladoniicola staurospora* gen. et sp. nov., a new lichenicolous coelomycete from Western Europe. *Belg. J. Bot.* **134** : 127-130.
- FLETCHER A., 1973a. — The ecology of marine (littoral) lichens on some rocky shores of Anglesey. *Lichenologist* **5** : 368-400.
- FLETCHER A., 1973b. — The ecology of maritime (supralittoral) lichens on some rocky shores of Anglesey. *Lichenologist* **5** : 401-422.
- GILBERT O., 2000. — Lichens : 288 p. Harper Collins Publishers, London.
- GRUBE M. & HAFELLNER J., 1990. — Studien an flechtenbewohnenden Pilzen der Sammelgattung *Didymella* (Ascomycetes, Dothideales). *Nova Hedwigia* **51** : 283-360.
- HAWKSWORTH D. L., 1985. — A redistribution of the species referred to the ascomycete genus *Microthelia*. *Bull. Br. Mus. nat. Hist. (Bot.)* **14** : 43-181.
- HUE A., 1924. — Monographia Crocyniarum. *Bull. Soc. Bot. Fr.* **71** : 311-402.
- KEIZER P.-J., 1980. — Verslag van een excursie in de duinen bij de goudmijnen Mine d'Or. *Kruipnieuws* **42** (2) : 4-8.
- LAMBINON J. (coll. MUNAUT A. V.), 1974. — Le Boulonnais et le nord des Bas-Champs picards (département du Pas-de-Calais, France). Excursion de la Société Botanique de Liège du 9 au 11 juin 1973. *Lejeunia* N. S. **73** : 1-22.
- LAMBINON J., DE LANGHE J.-E., DELVOSALLE L. & DUVIGNEAUD J. (& coll.), 1998. — Flora van België, het Groothertogdom Luxemburg, Noord-Frankrijk en de aangrenzende gebieden (Pteridofyten en Spermatofyten) ; ed. 3 : CXXXIII + 1091 pp. Nat. Plantentuin Belg., Meise.
- LEROND M., 1977. — Note sur la présence relictuelle de *Lobaria pulmonaria* (L.) Hoffm. en Normandie orientale. *Rev. Bryol. Lichénol.* **43** : 485-488.
- PURVIS O. W., COPPINS B. J., HAWKSWORTH D. L., JAMES P. W. & MOORE D. M., 1992. — The lichen flora of Great Britain and Ireland : 710 p. Natural History Museum Publications, London.
- SCHOLZ P., 2000. — Katalog der Flechten und flechtenbewohnenden Pilze Deutschlands. *Schriftenreihe für Vegetationskunde* **31** : 1-298.
- SÉRUSIAUX E., DIEDERICH P., BRAND M. & VAN DEN BOOM P., 1999. — New or interesting lichens and lichenicolous fungi from Belgium and Luxembourg. VIII. *Lejeunia* N. S. **162** : 1-95.
- TORRENTE P. & EGEA J. M., 1989. — La Familia Opegraphaceae en el Area Mediterránea de la Península Ibérica y Norte de Africa. *Bibl. Lichenol.* **32** : 1-282.
- 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 BOOM P., 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. & VĚZDA A., 1995. — A new species and a new variety of the lichen genus *Gyalidea* from Western Europe. *Mycotaxon* **54** : 421-426.
- VAN HALUWYN C., 1990. — Aperçu sur la végétation lichénique du Boulonnais (France, Pas-de-Calais). *Bull. Inf. Ass. Fr. Lichénol.* **15** : 3-12.
- VAN HALUWYN C., LANGUEREAU F. & CUNY D., 1995. — Quelques lichens se développant sur *Armeria maritima* Willd. ssp. *halleri* (Wallr.) Rothm. *Doc. Mycol.* **98-100** : 459-464.
- WATTEZ J. R., 1979. — Précisions sur la répartition et l'écologie de *Leptodon smithii* (Hedw.) Web. et Mohr (Neckeraceae, Musci) dans la partie occidentale du nord de la France. *Lejeunia* N. S. **96** : 1-27.
- WIRTH V., 1995. — Flechtenflora : 661 p. Ulmer, Stuttgart.

Manuscript received 30 January 2002.