Checklist and three new species of lichens and lichenicolous fungi of the Algarve (Portugal)

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An annotated catalogue of lichens and lichenicolous fungi of the Algarve (Portugal) is presented. It is based on a literature survey as well as on many records from recent fieldwork. For each taxon, references are listed according to the distribution region within the province. Three species are decribed as new, *Lecania juniperi, Lichenopeltella heppiae* and *Waynea algarvensis*. *Peterjamesia sorediata* has been identified. *Amandinea oleicola* is an accepted taxon from the *Amandinea punctata* group. Eight species are newly recorded for Europe, *Caloplaca dakotensis*, *Caloplaca stanfordensis*, *Canoparmelia aptata*, *Lecanora sabinae, Parmotrema grayanum*, *Peltula psammophila*, *Ramalina huei* and *Sagiolechia atlantica*.

Keywords: taxonomy, new combinations, new records, biodiversity.

Algarve is the southernmost province in Portugal. It is bordered by the Atlantic Ocean in the south and the west, by the province Alentejo in the north and by Spain in the east. It has an area of 6500 km² and is the southwestern most province of Europe. In general, the landscape of Algarve is mainly characterized by low hills with summits up to c. 400 m altitude, however centrally in the western half, there is the highest hilly area, Serra da Monchique with the highest point Foia, 902 m. Algarve has a Mediterranean climate, influenced by the Atlantic Ocean. The average maximum temperature in July and August is c. 28 °C, in January and February c. 16 °C. The annual precipitation in Faro is 522 mm and the annual number of rainy days is between 50 and 60.

Information regarding vascular plants in Algarve can be found in Braun-Blanquet *et al.* (1956) who mentioned *Oleo-Ceratonion* as the climax vegetation of most of the coastal plains. All over the province olive-, carob-, almond- and fig-orchards can be found. However the many ancient *Castanea* orchards are more and more replaced by *Eucalyptus* trees. The result of this process is a great reduction of the epiphytic flora (Jones 1980). The northern part of Algarve consists mainly of calcareous Carboniferos rocks, even in the

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area of Sagres, calcareous rocks are common. Sandstone outcrops are scattered through the south and the west and granite boulders and outcrops are common in the area of Serra de Monchique, up to the maximum altitude of 902 m at Foia (Jones 1980).

The first relevant paper about lichens of Algarve appeared in1869 by Estácio da Veiga. It includes a list of records mainly from Serra de Monchique. These collections were made by Estácio and the bryologist Graf H. Solms-Laubach. They made a trip in 1866 and collected rather a lot of lichens, saxicolous, corticolous as well as terricolous. Arnold (1868) included some of Solms-Laubach records. In a catalogue by Coutinho (1916), several reports are from Algarve, made by earlier workers of which collections are hosted in the herbarium of Lisbon.

Two most important Portuguese lichenologists in the 20th century did not pay much attention to Algarve, there appeared only some very fragmentary reports from lichens of Algarve by Sampaio (1970) and Tavares published some lichens between (1939–1958). A first paper of systematic research on lichens of Algarve was made by Jones (1980). He recorded c. 100 macrolichens, including data on distribution and substrata. A checklist for lichens in Portugal does not exist yet. In the recent checklist of lichens and lichenicolous fungi of the Iberian Peninsula by Llimona & Hladun (2001), literature about lichens and lichenicolous fungi of Portugal is included. However, unfortunately, literature from Portugal and Spain is not separated, so it is not possible to check the Portuguese reports in that work.

An increase of lichen studies in Algarve started with a fieldtrip to Algarve by the first author in 1993. As a result, several publications appeared, in some of them newly described species are included, these are *Verrucaria phloeophila* Breuss (Breuss 1998), *Caloplaca fuscoblastidiata* van den Boom & Etayo (van den Boom & Etayo 1995), *Gyalidea minuta* van den Boom & Vězda (van den Boom & Vězda 1995), *Catillaria fungoides* Etayo van den Boom (van den Boom & Etayo 2001), *Lecania poeltii* van den Boom, Alonso & Egea (van den Boom *et al.* 1996). Further papers with relevant data from the 1993 fieldtrip are Aptroot & van den Boom (1995), Giralt (2000), Giralt *et al.* (1996 a), Giralt *et al.* (1996 b), van den Boom & Giralt (1996) and van den Boom & Etayo (2000). More recently, the first author published a new *Waynea* species from Algarve, *W. giraltiae* van den Boom (van den Boom 2010).

A more detailed exploration of the lichen flora of Algarve started in 2003, with a trip to the area of Barranco do Velho. Fieldtrip concentrated on the western part of the province in 2004, on the eastern part in 2006, on the central part in 2009 and again on the western part of Algarve in 2010. The results of these fieldtrips are presented in this paper. Taxonomically we follow in general Smith *et al.* (2009).

The checklist includes 734 species or infraspecific taxa of lichenized, lichenicolous and allied fungi, *id est* non-lichenized fungi which usually have been treated together with lichens in modern lichenological literature. The checklist is based on available literature reports as well as on the recent collections made by the first author and hosted in his private herbarium.

From these specimens an indication of the locality (nearest village) is given. Three species in the genera *Lecania, Lichenopeltella* and *Waynea* are described as new; two new combinations are proposed, *Amandinea oleicola* (Nyl.) Giralt & van den Boom and *Fulvophyton sorediata* (Sparrius, P. James & M. A. Allen) van den Boom; and eight species are new to Europe. These all are indicated with # on the species name. Names not in bold are not accepted. The herbarium P. van den Boom is now likely to hold the largest collection of Algarve lichens and lichenicolous fungi. Substrata where the species have been collected as well as the distribution in the Algarve are also included. The geographic distribution of species is indicated by symbols of the region where the taxon has been reported. The six regions within the province are indicated in Fig. 1. This study is a huge contribution to the biodiversity of Portugal.

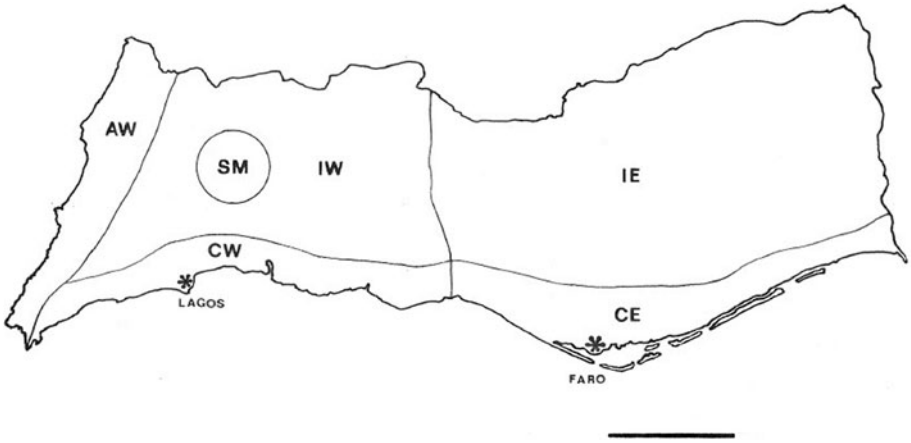

Fig. 1. Distribution map of the study area with six main parts. See regions in 'Symbols and Abbreviations'. Bar: 20 km.

Materials and methods

About 2500 specimens of lichens and lichenicolous fungi were investigated with a light-microscope or binocular microscope. Several of these specimens were also studied by TLC according to Orange *et al.* (2001). A few *Ramalina* specimens (collections from 2010) have been checked by DNA analysis, based on ITS loci (indicated by DNA in the list). Many specimens have been checked by specialists (see acknowledgements). In the year 2003, the Dutch lichenologist Maarten Brand collected c. 50 specimens of lichens and made a lot of notes on these lichens. Several of them are included in this study. The checklist of Llimona & Hladun (2001) has been consulted for comparison. Voucher specimens are placed in the private herbarium of P. van den Boom (herbarium numbers with PB). Collections made in 2003 have numbers in 31000; 2004 have numbers in 32000; from 2006 numers 35000; from 2009

numbers in 41000; from 2010 numbers in 45000. Collections made by M. Brand are in the private herbarium of M. Brand, indicated with MB.

Taxonomic notes

Amandinea oleicola **(Nyl.) Giralt & van den Boom, comb. nov.**
MycoBank no.: MB 803165

Basionym. – *Lecidea oleicola* Nyl., Bull. Soc. Linn. Normand., Ser. 2, Vol. VI: 312–313 (1872); *Buellia oleicola* (Nyl.) Zahlbr. Zahlbruckner's Cat. Lich. Univ. 7: 385. Typus. – France, Pyrénées Orientales, ad corticem oleae in Val d'en Raimbault, 8. July 1872, W. Nylander (H-Nyl-9543b-lectotype, here designated; H-Nyl-9543a-isolectotype).

This corticolous species belongs to the *Amandinea punctata* group but it is clearly distinguishable by a pale grey, rimose-areolate thallus without secondary metabolites; small apothecia up to 0.3(0.5) mm diam., immersed to adnate and surrounded by a whitish pseudothalline margin when young; and small *Buellia*-type ascospores of (10.5)11–13(15) × 5.5–6.5(7) µm, clearly ornamented, constricted at septum and often curved. As a member of *Amandinea*, it has filiform conidia of 13–17 × 1 µm. It typically grows in the *Oleo-Ceratonion*.

Specimens studied. – PORTUGAL, Algarve, N of Portimão, WNW of Silves, along river Odelouca, 8° 30.6' W, 37° 13' N, 20 m, 28. July 1993, *leg*. P. van den Boom 14811 (hb. v. d. Boom); N of Albufeira, c. 16 km N of São Bartolomeu de Messines, NE of São Marcos da Serra, road from Baião Velho to Azinhal, Corte Paral, mature *Quercus rotundifolia* tree in field and old neglected wall, on *Quercus rotundifolia*, 8° 17.79' W, 37° 24.17' N, 150 m, *leg*. P. & B. van den Boom 41680 (hb. v. d. Boom); NNE of Albufeira, c. 9 km NE of Alte, Pé de Coelho, along road to the north, to Malhão, old orchard with *Olea europaea*, *Ceratonia siliqua* and *Ficus carica*, on *Ficus*, 8° 05.87' W, 37° 18.03' N, 274 m, 24. January 2009, *leg*. P. & B. van den Boom 41716 (hb. v. d. Boom); N of Faro, between Loulé and Vilamoura, Cabeço de Câmara, near Cerro, E side of hill, on E slope, mixed (small) trees and *Pistacia* shrubs, including a mature *Pistacia* tree, on *Quercus rotundifolia*, 8° 02.79' W, 37° 07.46' N, 140 m, 20. January 2009, *leg*. P. & B. van den Boom 41495 (hb. v. d. Boom). SPAIN, Canary Islands, Fuerteventura, Betancuria, on *Eucalyptus* tree, 500 m, 2001, *leg*. P. & B. van den Boom 26038 (hb. v. d. Boom).

Fulvophyton sorediata **(Sparrius, P. James & M. A. Allen) van den Boom, comb. nov. –** Fig. 2.
MycoBank no.: MB 803166

Basionym. – *Sclerophytomyces circumscriptus* var. *sorediatus* Sparrius, P. James & M. A. Allen. Lichenologist **37**: 285–289. Typus. – SPAIN, Canary Island, La Palma, leg. Hernández Padron (E). *Peterjamesia sorediata* (Sparrius, P. James & M. A. Allen) D. Hawksw. Lichenologist **38**: 187–190.

This is the first known fertile record. Thallus mosaic-forming, rimose areolate, plane to finely verrucose, whitish to pale grey, P+ yellow (psoromic acid); ascomata immersed in the thallus and roundish (up to 0.7 mm diam.) to shortly lirellate (up to 1 mm long × 0.5 mm wide); excipulum brownish; hypothecium hyaline; paraphysoids branched and anastomosing; ascospores

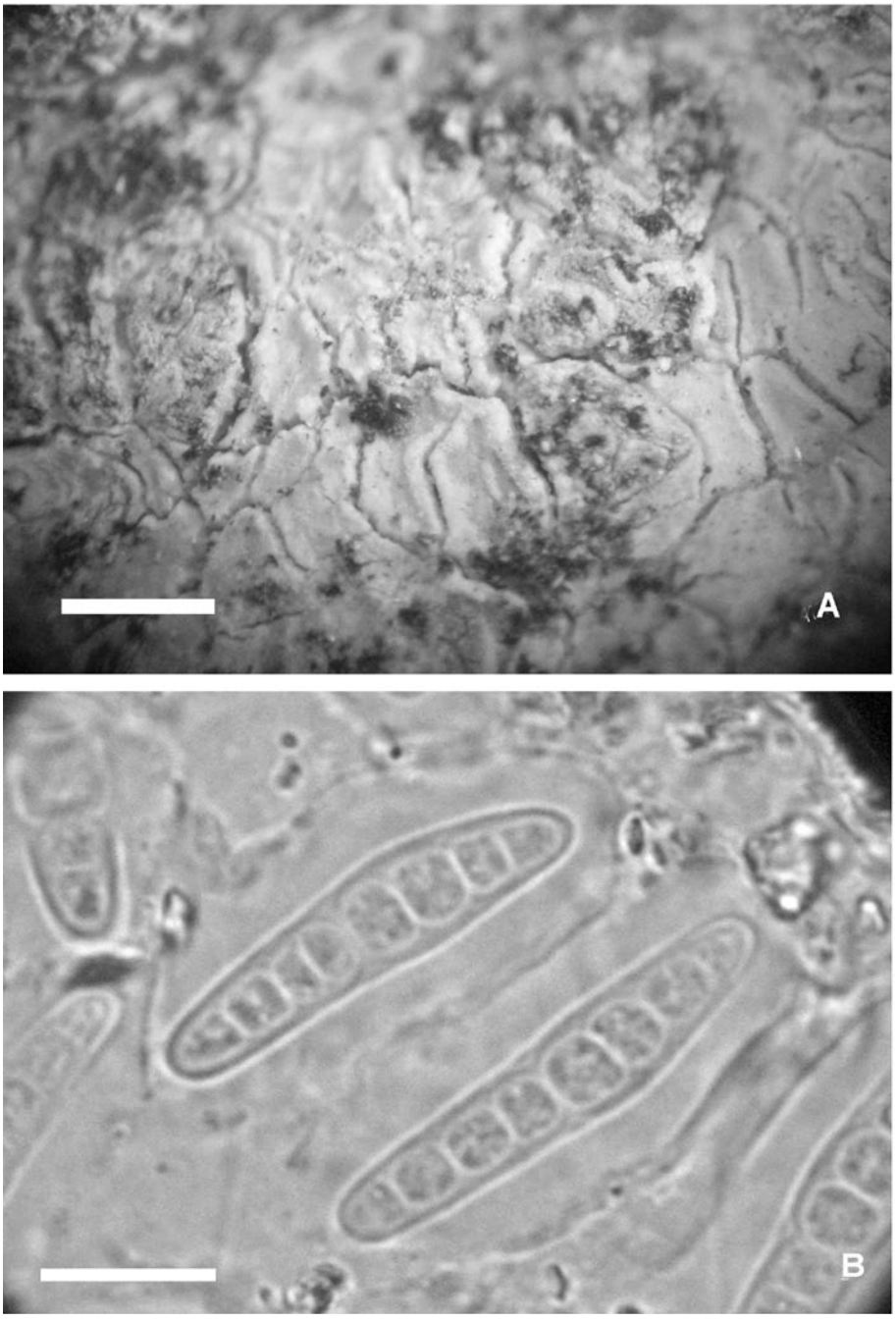

Fig. 2. *Fulvophyton sorediata* (v. d. Boom 32310), **A** sorediate thallus and some apothecia, **B** ascospores with perispore. Bars: A 500 µm, B 10 µm.

(4)6–8-septate, 20–35 × 5–7 µm, hyaline, fusiform, straight to slightly curved with a distinct gelatinous sheath of c. 3.5 µm wide. Pycnidia not detected.

Specimens studied. – PORTUGAL, NW of Lagos, WSW of Aljezur, W of highest top of Arrifana, W exposed outcrops, on S exposed steep outcrop, 8° 52,01' 37°W, 17,12' N, 100 m, 27. April 2004, *leg*. P. & B. van den Boom 32310 (hb. v. d. Boom); ibid., N exposed strong sloping and vertical coastal outcrops along small valley (from E toW), 16. October 2010, *leg.* P. & B. van den Boom 45162 (hb. v. d. Boom); N of Aljezur, SW of Odeceixe, road from Rogil to the coast, NW of Esteveira, south side of the valley, coastal area, dune area with W exposed acidic outcrops, 8° 48,8'W, 37° 24,3' N, 45 m, *leg*. P. & B. van den Boom 45340 (hb. v. d. Boom); N of Sagres, NNW of Vila do Bispo, Amado beach, coastal area with dunes and W exposed acidic steep outcrops, just along the beach, on vertical rock, 8° 54,15'W, 37° 09,90' N, 25 m, 21. October 2010, *leg*. P. & B. van den Boom 45403 (hb. v. d. Boom).

***Lecania juniperi* van den Boom, sp. nov. –** Fig. 3.
MycoBank no.: MB 801496

Diagnosis. – Species similar to *Lecania cyrtella* but differing by a warted and sorediate thallus; bigger apothecia, up to 0.8 mm, with a more prominent margin, not excluded; ascospores 9–14(15) × 3.5–5(5.5) µm, ellipsoid to somewhat ovoid, (0)1-septatae. Pycnidia not found.

Typus. – PORTUGAL, Algarve, N of Aljezur, W of Odeceixe, south of Praia do Odeceixe, south of Ribeira de Ceixe, coastal area, dune area with acidic outcrops, on *Juniperus phoenicea*, 8° 48,0'W; 37° 26,3' N, 50 m, 19. October 2010, *leg*. P. & B. van den Boom 45323 (BR-holotype, hb. v. d. Boom-isotype).

Description. – Thallus corticolous, small, c. 1 cm wide, up to 0.5 mm thick, contiguous to areolate or sometimes slightly rimose, consisting of areoles, up to 1 mm wide, upper surface smooth to clearly warted, warts up to 0.35 mm wide, but the areoles often for a great part sorediate, pale grey to greyish brown; photobiont chlorococcoid, cells of 5 to 14 µm diam. Apothecia up to 0.8 mm diam., disc plane to slightly convex, greyish, blue-grey, grey-brown, dark brown to blackish, often giving a piebald appearance; margin thin, becoming well developd (0.05 to 0.15 mm wide), paler than the disc, persistent; excipulum lecanorine, nearly completely filled with green algae, not cellular, inner part hyaline, cortical zone chondroid, particulary developed in the lower part, mainly below the hypothecium; true excipulum hyaline, visible as a small rim, not well developed, c. 15 µm wide; epihymenium, dark reddish brown to dark olive-brown, paler in KOH; hymenium c. 50–75 µm high, hyaline; paraphyses conglutinated, septate, cells in the middle of the hymenium 1.5–2 µm diam., simple to sometimes branched in the upper part, apices pale to often brown-olive to dark brown-pigmented, widened up to 7 µm; asci *Biatora*-type, 8-spored, 30–38 × 9–15 µm. Ascospores 9–14(15) × (3)3.5–5(5.5) µm, ellipsoid to somewhat ovoid, (0)1-septate. Pycnidia not found.

Chemistry. – Thallus K–, C–, KC–, P–; no chemical compounds detected.

Etymology. – The epithet refers to the host genus.

Distribution and ecology. – This new species occurs on thin branches of *Juniperus phoenicea* shrubs, in the coastal area (Atlantic coast), in open exposed areas at elevation of c. 50 m. It is currently known only from

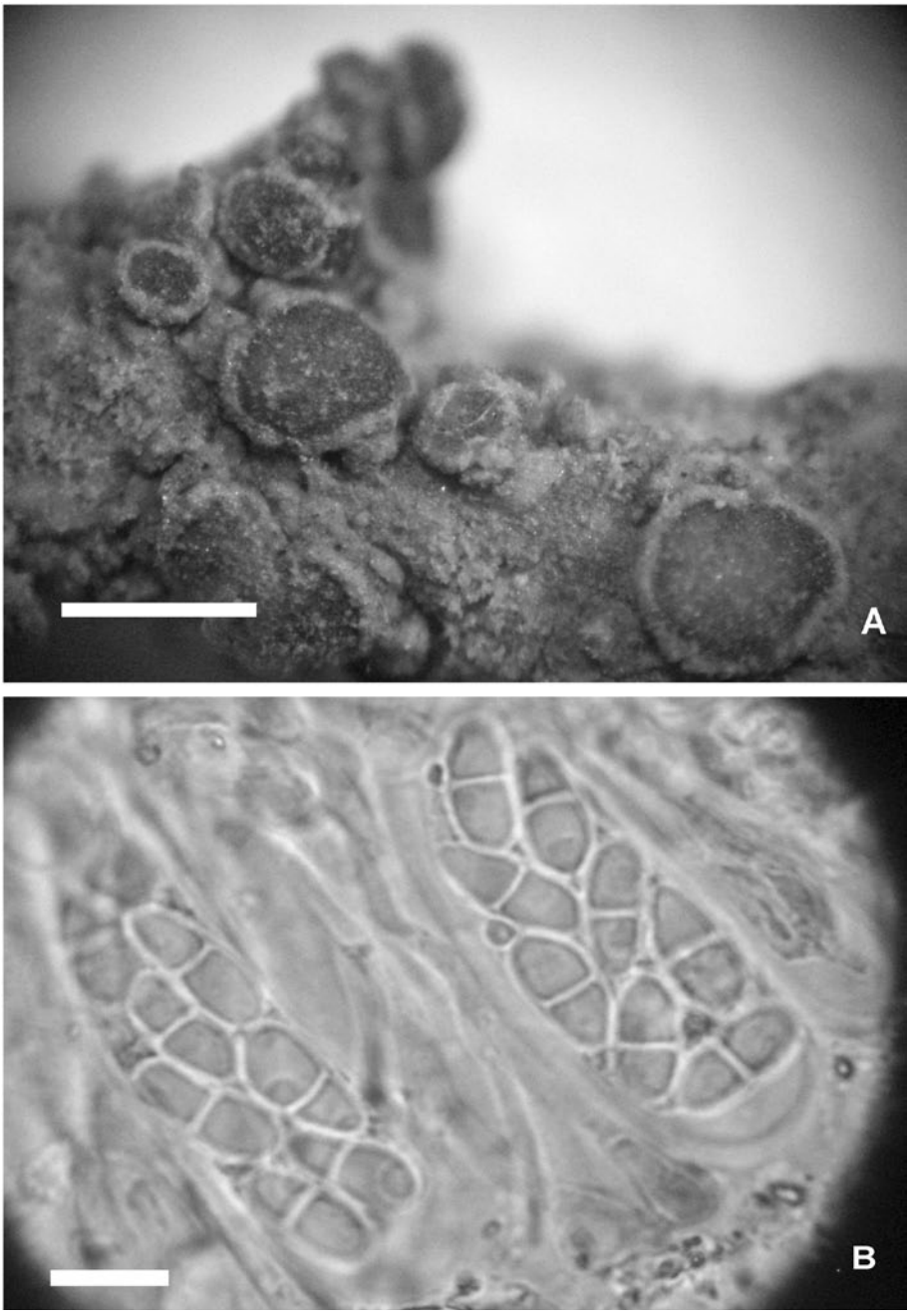

Fig. 3. *Lecania juniperi* (holotype), **A** habitus, **B** ascus and ascospores. Bars: A 500 µm, B 10 µm.

the type locality. Accompanying species are *Caloplaca chrysophthalma, Diploicia canescens, Lecanora* sp., *Opegrapha xerica* and *Opegrapha* sp.

Notes. – *Lecania juniperi* belongs to the *Lecania cyrtella* group of which two sorediate (saxicolous) species are known, *L. erysibe* and *L. leprosa*. In these latter two species the thallus is never warted, but completely sorediate, the apothecia are smaller, 0.3–0.55 mm, the thalline excipulum is often rather reduced, and the ascospores are smaller, 3–4 µm wide. Both species have apothecia with a brown disc and paraphyses which are not or slightly swollen at apices. In the field *Lecania juniperi* could be easily mistaken for *L. naegelii*, especially the non sorediate parts, or for a not well developed specimen of *L. viridulogranulosa*. Both are corticolous and occur in Algarve. The former has 3-septate ascospores and a non-lecanorine excipulum, the latter has a sorediate thallus, but also 3-septate ascospores.

***Lichenopeltella heppiae* van den Boom, sp. nov. –** Fig. 4.
MycoBank no.: MB 801497

Diagnosis. – Species growing on thallus and apothecia of *Heppia despreauxii*, ascomata catathecia, black, globose, 100 to 150 µm diam.; ascus 35–55 × 15–18, 8-spored; ascospores uniseptate, clavate, hyaline, 14–17 × 5.5–7 µm, upper part of ascospores with 3 pairs of setulae, present at the top of the ascospores, setulae curved.

Typus. – PORTUGAL, Algarve, NE of Albufeira, c. 7 km ENE of Paderne, along new road from Espargal to the south, W slope of a small hill, low calcareous outcrops and a few *Ceratonia siliqua* trees, on *Heppia despreauxii*, 8° 07.21'W, 37° 12.84' N, 235 m, 26. January 2009, *leg*. P. & B. van den Boom 41873 (BR-holotype, hb. v. d. Boom-isotype).

Description. – Ascomata catathecia, superficial, semiimmersed in the thallus and the apothecia, subglobose to globose, black, scattered to often crowded, 100–150 µm diam., margin entire, upper wall composed of dark brown, K+ grey, rectangular to more or less quadrangular cells arranged in radiating rows, individual cells 7–8 × 4–5(6) µm, basal and around the ostiolar collar similar, setae absent, hamathecium tissues not seen; asci cylindrical to narrowly clavate, more or less curved, thick walled, with a small ocular chamber, I–, 35–55 × 15–18 µm, 8-spored; ascospores 1-septate, hyaline, with a smooth surface, clavate, 14–17 × 5.5–7 µm, with one or two oil-droplets in each cell, not or rarely slightly constricted at the septum, often with 3 pairs of setulae, often present at the top of the ascospores at one site; setulae curved and up to 9 µm long. Pycnidia not seen.

Host. – On the thallus of the terricolous *Heppia despreauxii*, not damaging the host.

Etymology. – The epithet refers to the host genus.

Distribution and ecology. – The new species is known only from the type locality, growing abundantly on the terricolous host species *Heppia despreauxii*, present on some scattered thallus parts, in a wide open gently sloping area, among low calcareous outcrops. The following accompa-

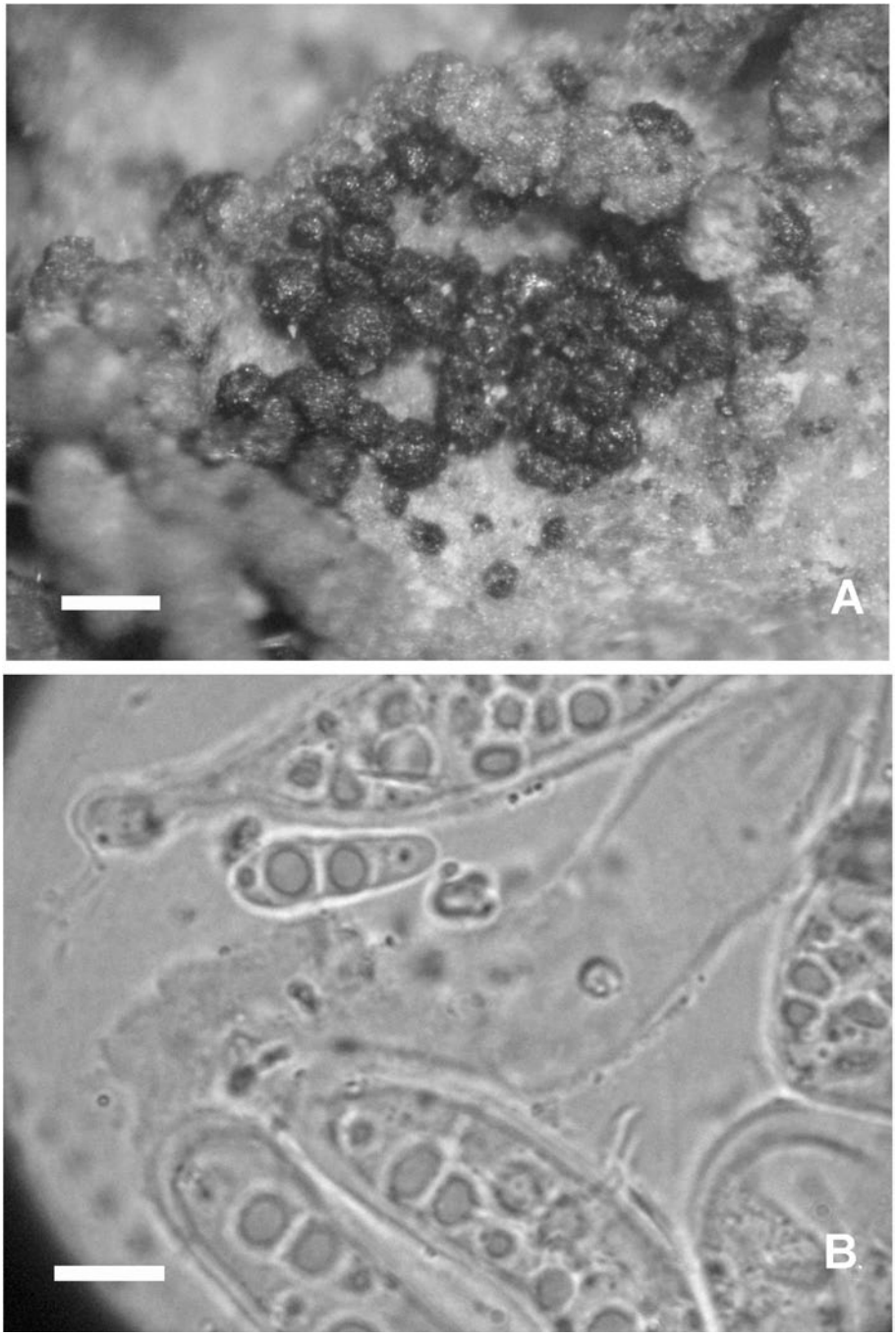

Fig. 4. *Lichenopeltella heppiae* (holotype), **A** habitus, **B** ascospores and ascus. Bars: A 200 mm, B 10 µm.

nying lichens were observed: *Epiphloea terrena, Heppia echinulata, Heppia solorinoides, Squamarina cartilaginea* and *Squamarina concrescens*.

N o t e s . – Nearly all known species of *Lichenopeltella* are supposed to be host specific, as it is cleared in the key by Aptroot *et al*. (1997). However, when comparing characters of the new species with the known *Lichenopeltella* species, several other taxa must be considered. In comparison with similar species in the key of Aptroot *et al*. (1997), the only species with ascomata of 100–150 µm and with three pairs of setulae is *Lichenopeltella physciae* Diederich. This latter species is only known from the host *Physcia sorediata* and its ascospores are ellipsoid with their setulae situated near the septum.

Recently, in Perez-Ortegal & Spribille (2009), three new species of *Lichenopeltella* were described from the Pacific Northwest in North America. All three newly described species grow on epiphytic crustose lichens: *Lichenopeltella biatorae* grows on *Biatora flavopunctata*, *L. arctomiae* on *Arctomia delicatula*, and *L. leprosula* on *Myochroidea leprosula*. They all have 4-spored asci and the ascospores have setulae near the septum except *Lichenopeltella arctomiae*, bearing the setulae at the apices of the upper cell, as in the new species. However, the ascospores are longer, 17–*18.6*–20(22) × (4.5)5–*5.9*–6.5(7) µm. Thus the latter seems to be the most related species.

***Waynea algarvensis* van den Boom, sp. nov. –** Fig. 5.
MycoBank no.: MB 801499

D i a g n o s i s . – Species similar to *Waynea cretica*, but differing in minute thallus parts, up to 5 mm; apothecia 0.15–0.3(0.5) mm diam., ascospores fusiform, (0)3–4(5)-septate, 15–25 × 2–2.5 µm; conidia baciliform, 9–12 × 0.9–1.1 µm.

T y p u s . – PORTUGAL, Algarve, NNE of Lagos, 3 km N of Arão, along road to Pereira, some *Olea europaea* trees in field along brooklet, on *O. europaea*, 8° 38.7'W; 37° 11.5' N, 50 m, 18. October 2010, *leg*. P. & B. van den Boom 45242 (BR-holotype, hb. v. d. Boom-isotype).

D e s c r i p t i o n . – Thallus corticolous on bark of a trunk, minutely squamulose, up to 5 mm wide, squamules plane to slightly convex and appressed, sometimes slightly ascending, 0.1–0.3(0.4) mm wide, up to 0.15 µm thick, without a tomentum on the upper surface; upper surface pale brown or greyish brown to medium brown, matt; upper cortex in section not developed; algal layer 20–40 µm thick; medulla composed of loosely interwoven hyphae; hyphal lumina ± branched; upper surface uneven, irregular; lower cortex absent. Photobiont green algae, cells ± globose, 6–12 µm diam. Prothallus not observed. Apothecia abundant, scattered to crowded, appressed to sessile, slightly constricted at base, rounded to sometimes irregularly angular or flexuose, 0.15–0.3(0.5) mm diam.; margin thin initially raised, especially in young apothecia, becoming level with disc and excluded in mature apothecia, entire, concolorous with disc, up to 0.1 mm wide; disc plane to slightly concave, sometimes becoming weakly convex, dark grey to dark brown or blackish, epruinose; excipulum with cortex, cortex prosoplecten-

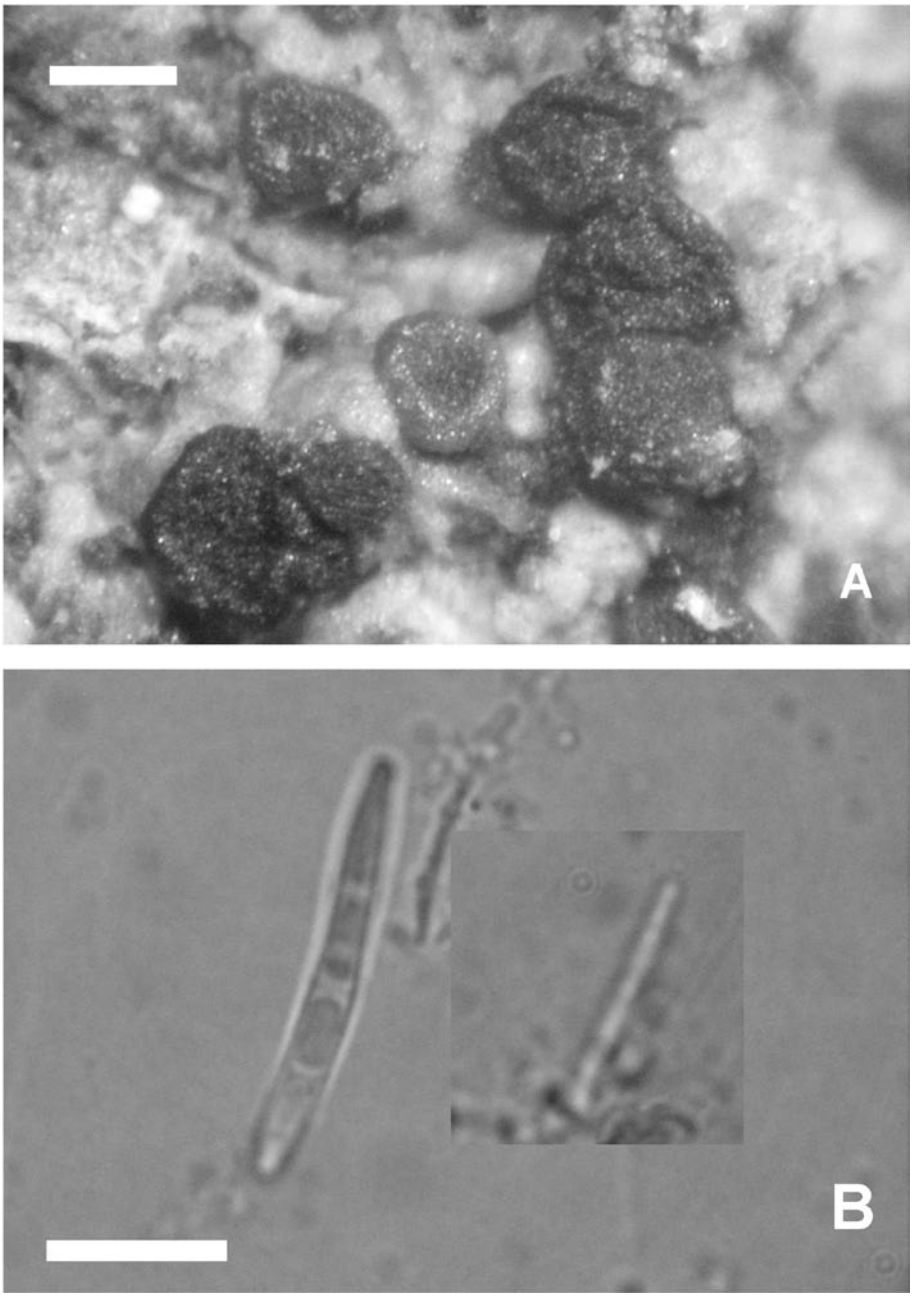

Fig. 5. *Waynea algarvensis* (holotype), **A** habitus, **B** ascospore (left), conidium (right). Bars: A 200 µm, B 10 µm.

chymatous, composed of branched and anastomosing hyphae; hyphae 5–10 × 2–2.5 µm wide, septate, terminal cells not widened, hyaline at the underside of the excipulum, sometimes violaceous greyish in the upper part; epihymenium spotted greyish olive N+ reddish purple, K+ violet; hymenium hyaline, 30–40 µm thick; hypothecium hyaline, up to 30 µm high; paraphyses weakly conglutinated in water, simple or mostly branched in the upper part, septate, sometimes slightly constricted at septa, especially at upper cells, 2.5–4(5) µm wide in the middle or just below the upper cell, top often widened, up to 6 µm wide, hyaline to often greyish olive-brown, not covered by a gelatinous layer; asci 8-spored, *Bacidia*-type, with tendencies to the *Biatora*-type, clavate to ellipsoid, often with a gelatinous layer, 20–32 × 7–10 µm. Ascospores colourless, fusiform, (0)3–4(5)-septate, 15–25 × 2–2.5 µm.

Pycnidia occasionally present, 40–100 µm, brownish olive around the ostiole, hyaline below; conidia colourless, bacilliform, 9–12 × 0.9–1.1 µm.

C h e m i s t r y. – Thallus K–, KC–, C–, Pd–. No chemical compounds detected.

Sedifolia-grey (Meyer & Printzen 2000) in the epihymenium and in the excipulum.

E t y m o l o g y. – The epithet refers to the southernmost province in Portugal, where the new species occurs.

D i s t r i b u t i o n a n d e c o l o g y. – The new species occurs in the southwesternmost part of Europe, the province Algarve in Portugal. It is a lowland, coastal species ranging between 15–50 m altitude. The new species is only known from the phorophyte *Olea europaea*, from epiphytic communities poor in lichens. In the type locality the accompanying species are *Caloplaca ferruginea*, *Diploicia canescens*, *Hyperphyscia adglutinata, Lecanora chlarotera*, *Opegrapha* sp., *Physcia* cf. *adscendens*, *Rinodina* sp.

N o t e s. – The diagnostic characters for *Waynea algarvensis* are: squamules flat to slightly convex, ± ascending, not sorediate, cortex not prosoplectenchymatous, medulla hyphae 2.5–3 µm wide, ascospores fusiform, 15–25 × 2–2.5 µm, (0)3–4(5)-septate. The asci mostly are clearly of *Bacidia*-type. However in a few cases asci with a central tube, somewhat stronger amyloid, were observed and even the fuzzy coat is usually rather strongly amyloid.

Waynea algarvensis is easily overlooked because of its minute habit, and easily confused with a poorly developped *Waynea cretica*, which also has small appressed, but longer squamules. In the latter the ascospores are acicular, 5–7-septate and 30–45 × 1.5–2 µm. The chemistry is not different, as *W. cretica* has even no chemical compounds. Both species can occur in the same habitats and on the same phorophyte. However, *W. cretica* has a wider amplitude regarding substrate, occurring on *Quercus* but also on *Ceratonia siliqua* and *Olea europaea* (van den Boom 2010). *Waynea giraltiae* can also be mistaken for the new species, because of its 3-septate ascospores, but these are clearly shorter, 12–18 × 2–2.5 µm, and never 4–5-septate; it has tomentose squamules and bigger apothecia, 0.2–0.9 mm diam., and it is restricted to only one but a different phorophyte, *Quercus rotundifolia*.

Waynea algarvensis seems to be a rare species, as the habitats in which it occurs has been found abundantly scattered all over Algarve, many phorophytes in many localities were checked for *Waynea* species but in only two, *W. algarvensis* has been found. In Algarve, *Waynea cretica* has been found in five localities, *Waynea giraltae* is known from four localities and *W. stoechadiana,* the most common one of the genus, occurs all over the province (van den Boom 2010).

Waynea algarvensis also resembles *Bacidia igniarii*, especially in the small apothecia, the thin greyish brown thallus and the 3-septate ascospores, but the apothecia are always black and the ascospores are somewhat shorter and wider, 12–19 × 2.5–3 µm. *Bacidia igniarii* is a comon species in Algarve.

Additional specimens studied. – PORTUGAL, NE of Lagos, 1.5 km SW of Mexilhoeira Grande, Vale de Lama, a long row of *Olea europaea* trees along fields, on *O. europaea*, 8° 37,80' W; 37° 08,55' N, 15 m, 18. October 2010, leg. P. & B. van den Boom 45258 (hb. v. d. Boom).

Symbols and abbreviations

Regions (Fig. 1)

AW	Atlantic west coast
CE	Coastal, eastern, from Albufera to Villa Real
CW	Coastal, western, from Sagres to Albufera
IE	Inland eastern (east of IP1)
IW	Inland western (west of IP1)
SM	Serra Monchique

Substrate (mentioned in bracklets)

Ac	*Acer*	Mo	*Morus nigra*
Ai	*Acacia* sp.	My	*Myoporum tenuifolium*
Al	*Alnus glutinosa*	No	*Nerium oleander*
Ar	*Arbutus unedo*	Ol	*Olea europaea*
Ca	*Castanea sativa*	Pl	*Platanus* sp.
Ce	*Ceratonia siliqua*	Pn	*Pinus* sp.
Ci	*Citrus*	Po	*Populus* sp.
Cl	*Celtis*	Pr	*Prunus dulcis*
Cr	*Crataegus monogyna*	Pt	*Pistacea*
Cs	*Casuarina equisetifolia*	Pu	*Punica granatum*
Cu	*Cupressus*	Py	*Pyrus pyraster*
Cy	*Cystus*	Q	*Quercus* sp.
Eu	*Eucalyptus*	Qa	*Quercus canariensis*
Fi	*Ficus carica*	Qc	*Quercus coccifera*
Fr	*Fraxinus angustifolia*	Qi	*Quercus ilex*
Jn	*Juniperus*	Qr	*Quercus robur*
Ju	*Juglans*	Qs	*Quercus suber*
Ma	*Malus sylvestris*	Ro	*Robinia* sp.
Mi	Mimosaceae	Sy	*Syringia* sp.

bfb	bark of fallen branch	sts	stones on soil
c	calcareous rock	sw	stone of wall
cw	cement of wall	t	terricolous
s	siliceous rock	tl	tile
sa	sandstone	ut	unidentified tree
so	stone	ush	unidentified shrub

*	lichenicolous fungus
+	non lichenized fungus
#	newly described, new combination, or new to Europe

Checklist

Abrothallus caerulescens Kotte
PB35940 (Fonte Salgada); IE [s] on *Xanthoparmelia*

Abrothallus microspermus Tul.
PB41595 (Alportel); PB45361 (Picota); SM [Ol] on *Flavoparmelia caperata*

Abrothallus parmeliarum (Summerf.) Arnold
PB32399 (Monchique); SM [Ol] on *Punctelia* sp.

Abrothallus parmotrematis Diederich
van den Boom & Giralt (1996); PB32415, MB49951 (Monchique); PB35974 (Fonte Benémola); IE,SM [Fi,Ol] on *Parmotrema reticulatum*

Abrothallus welwitschii Tul.
Coutinho (1916); SM: on *Sticta fuliginosa*.

Absconditella lignicola Vězda & Pisut
van den Boom & Giralt (1996); SM [Ro]

Acarospora cervina A. Massal.
PB41764 (Rocha da Pena); IE [c]

Acarospora fuscata (Nyl.) Arnold
van den Boom & Giralt (1996); SM [s]

Acarospora hilaris (Dufour) Hue
PB36068 (Bentos); IE [s]

Acarospora nitrophila H. Magn.
MB49911 (Monchique); MS [s]

Acarospora nodulosa (Dufour) Hue
PB32476 (Ferragudo); CW [t]

Acarospora smaragdula (Wahlenb.) A. Massal.
Arnold (1868); SM [s]

Acarospora umbilicata Bagl.
Tavares (1949); PB35769 (Cascata Moinhos de Rocha); PB41627 (Bastos); CE,IW,SM [s,sw]

Acrocordia gemmata (Ach.) A. Massal.
van den Boom & Giralt (1996); PB32602 (Espiche); PB45332 (Odeceixe); AW,CW,SM [Fi,Ju,Ce,Ol]

Acrocordia macrospora A. Massal.
Arnold (1868); PB45374 (Castelejo); AW,IW [s,sa]

Agonimia opuntiella (Buschard & Poelt) Vězda
PB35752 (Cascata Moinhos de Rocha); PB35810 (Portela); PB41817, 41823 (Gilvrazino); CE,IE [Ol,Qro,bfb]

Agonimia replete Czarnota & Coppins
van den Boom (2005); SM [t]

Agonimia tristicula (Nyl.) Zahlbr.
van den Boom & Giralt (1996); PB35975 (Fonte Benémola); IE,SM [Ol,Qi]

Amandinea crassiuscula Giralt & Etayo
Sampaio (1970) as *Lecidea subcinerascens* Samp. = *Buellia subcinerascens* (Nyl.) Zahlbr.; Giralt *et al*. 2000 b; Paz-Bermúdez & Giralt (2010); PB35814,35821 (Portela); PB41748 (Rocha da Pena); IE,IW [Ce,Ol,Q,bfb]

Amandinea lecideina (H. Mayrhofer & Poelt) Scheid. & H. Mayrhofer
PB32609 (Aljezur); AW [s]

Amandinea maritima Giralt, van den Boom & Elix
Lumbsch *et al*. (2011); PB32560 (Carrapateira); AW [Ol]

Amandinea myrticola Giralt, van den Boom & Elix
PB41646 (São Marcos da Serra); IW [ut]

#*Amandinea oleicola* (Zahlbr.) Giralt & van den Boom
See above.

Amandinea punctata (Hoffm.) Coppins & Scheid. **ss. l.**
Arnold (1868); as *Buellia stigmatea* Körb.; *Buellia stigmatea* (Schaer.) Körb. 1855 belongs here, however this group needs a revision, so our records probably do not belong to *A. punctata* s. str. PB14622, 14822 (Monchique); PB35850 (Vale de Gralhas); CE,IW,SM [Qs,Qu,s,ush]

Anaptychia ciliaris (L.) Körb.
Coutinho (1916); Jones (1980); IE,SM, no further data

Anisomeridium biforme (Borrer) R. C. Harris
PB32349 (Vila do Bispo); AW [Eu]

Anisomeridium polypori (Ellis & Everh.) M. E. Barr
van den Boom & Giralt (1996); PB41701 (São Marcos da Serra); PB45348 (Alferce); IE,SM [Fr,Ju,c(moss)]

Anthracocarpon virescens (Zahlbr.) Breuss
PB35863 (Pechão); PB41878 (Paderne); CE,IE [t]

Arthonia atra (Pers.) A. Schneid.
Coutinho (1916); Torrente & Egea (1989); van den Boom & Giralt (1996) as *Opegrapha atra*; PB32387 (Cabo da São Vicente); PB41882 (Alte); AW,CE,CW [Ce,No,ush]

Arthonia calcarea Turner ex Sm. & Sowerby
Torrente & Egea (1989); PB32296 (Aljezur); AW [c]

Arthonia calcicola Nyl.
van den Boom & Giralt (1996); CW [c]

****Arthonia coronata*** Etayo
PB41537 (Marreiros); IE [Qs] on *Flavoparmelia caperata*

****Arthonia diploiciae*** Calatayud & Diederich
van den Boom & Giralt (1996); PB32491 (Ferragudo); PB45254 (Mexilhoeira Grande); AW,CW [Ce,Ol,s] on *Diploicia canescens*

Arthonia melanophthalma Dufour
PB32488 (Ferragudo); PB32522 (Amorosa); MB50003 (Guia); CE,CW [Ce,Ol]

Arthonia meridionalis Zahlbr.
Egea (1989); van den Boom & Giralt (1996); PB32576 (Carrapateira); AW [c]

****Arthonia molendoi*** (Heufl. ex Frauenf.) R. Sant.
PB35836 (Tavira); PB41550 (Aguas Frias do Meio); PB41656 (São Marcos da Serra); 45236 (Mexilhoeira): CW,IE,IW [Fi,ut] on *Flavoparmelia soredians*, *Xanthoria parietina*

Arthonia polymorpha Nyl.
Coutinho (1916); CE [No], according to Llimona & Hladun (2001) not yet checked.

Arthonia pruinata (Torss.) A. L. Sm.
Sampaio (1970) as *A. algarbica* Samp.; Paz-Bermúdez *et al.* (2002); Paz--Bermúdez (2003); PB32496 (Ferragudo); PB45257 (Mexilhoeira Grande); AW,CW [Ce,Eu,Ol]

+*Artonia punctiformis* (Pers.) Ach.
MB50005 (Albufeira); CE [Ol]

Arthonia radiata (Pers.) Ach.
Coutinho (1916); PB41611 (Alportel); PB45266 (Zambujeira de Baixo); AW,CE,IE [Al,Fr,No]

Arthopyrenia analepta (Ach). A. Massal.
Coutinho (1916); CE [No]

Arthopyrenia cinereopruinosa (Schaer.) A. Massal.
PB41606 (Alportel); IE [Fr]

Arthothelium taediosoides Giralt & Grube
van den Boom & Giralt (1996); PB41808 (Silves); MB50002 (Albufeira); CE,CW,IE,IW [Al,Ce,Fi,Ol]

Arthrosporum populorum A. Massal.
PB41784 (Carvoeiro); PB45275 (Odeceixe); AW,CW [Jn,Pt]

Aspicilia calcarea (L.) Mudd
Arnold (1868); PB35945 (Fonte salgada); IE,IW,SM [c,s]

Aspicilia cinerea (L.) Körb.
Arnold (1868); IW,SM [s,sa]

Aspicilia recedens (Taylor) Arnold
MB49917 (Monchique); SM [s]

Bacidia absistens (Nyl.) Arnold
van den Boom & Giralt (1996); Llop (2007); PB35968 (Fonte Benémola); PB41747 (Rocha da Pena); PB45350 (Alferce); PB45205 (Rocha dos Soidos); IE,SM [Ce,Fi,Fr,Ju]

Bacidia arceutina (Ach.) Arnold
Coutinho (1916); van den Boom & Giralt (1996); Llop (2007); PB35749 (Cascata Moinhos de Rocha); CE,SM [Fr,Ju,No]

Bacidia beckhausii Körb.
Llop (2007), no further data

Bacidia friesiana (Hepp) Körb.
MB49902 (Monchique); SM [Ol]

Bacidia iberica Aragón & I. Martinez
Llop (2007), no further data

Bacidia igniarii (Nyl.) Oxner
van den Boom (2010); PB36031 (Tavira); PB36057 (Vaqueiros); PB41510 (Paderne); PB41679 (São Marcos da Serra); CE,IE [Ce,Qc,Qi,Qr]

Bacidia laurocerasi (Delise ex Duby) Zahlbr.
van den Boom & Giralt (1996); Llop (2007); PB35997 (Fonte Benémola); PB36002 (Fonte Benémola); PB41599 (Alportel); PB45112 (Monchique); PB45260 (Zambujeira de Baixo); AW,CE,IE,IW,SM [Al,Ce,Ci,Fr,Ju,Ol,Pu]

Bacidia parathalassica Llop & Gómez-Bolea
PB36092 (Leziria); CE [Ol]

Bacidia rubella (Hoffm.) A. Massal.
van den Boom & Giralt (1996); PB32524 (Amorosa); PB35820 (Portela); PB41678 (São Marcos da Serra); CW,IE [Fi,Ol,Qi,Qr,bfb]

Bacidia subincompta (Nyl.) Arnold
van den Boom & Giralt (1996); PB35907 (Cacela Velha); PB41672 (São Marcos da Serra); IE [Qi]

Bacidina caligans (Nyl.) Llop & Hladun
van den Boom & Giralt (1996); Llop (2007); SM [Ju]

Bactrospora patellarioides (Nyl.) Almq.
Torrente & Egea (1989); Egea & Torrente (1993); van den Boom & Giralt (1996); PB32486 (Ferragudo); PB35846 (Pedras d'el Rei); PB41839 (Alto Fica); CE,CW,IE,IW [Ce,Ol,Pt,Qs]

Bagliettoa calciseda (DC.) Gueidan & Cl. Roux
Arnold (1868) as *Verrucaria calciseda* DC.; PB45032 (Lagos); CW,IW [c]

Bagliettoa marmorea (Scop.) Gueidan & Cl. Roux
PB41769 (Alte); IE (c)

Bellemerea diamarta (Ach.) Hafellner & Cl. Roux var. ***cinereorufescens*** (Ach.) Clauzade & Cl. Roux
Sampaio (1970) as *Lecanora cinereorufescens* Ach.; IE [s]

Biatoridium monasteriense J. Lahm ex Körb.
van den Boom & Giralt (1996); PB35825 (Portela); PB41675 (São Marcos da Serra); PB45102 (Monchique); PB45233 (Mexilhoeira Grande); CW,IE,SM [Ol,Qi]

****Biatoropsis usnearum*** Räsänen
PB45053 (Monchique); SM [Ol] on *Usnea*

Bilimbia sabuletorum (Schreb.) Arnold
PB32508 (Amorosa); PB41771 (Rocha de Pena); CW,IE [c, over moss]

Blastenia subarenaria Samp.
Sampaio (1970); CW [c]

Botryolepraria lesdainii (Hue) Canals, Hern.-Mar., Gómez-Bolea & Llimona
van den Boom & Giralt (1996) as *Lepraria lesdainii* (Hue) R. C. Harris; AW,IE [c]

Buellia abstracta (Nyl.) H. Olivier **s.str.**
van den Boom & Giralt (1996) sub *B.* cf. *sequax* (specimens PB14638, 14757); PB41626 (Bastos); PB41667, 41668 (São Marcos da Serra); IW [s]

Buellia aethalea (Ach.) Th. Fr.
PB36067 (Vaqueiros); IE [s]

Buellia badia (Fr.) A. Massal.
van den Boom & Giralt (1996); PB35778 (Alcaria do Cume); PB41609 (Javali); IE,SM [s,so]

Buellia caloplacivora Llimona & Egea
van den Boom & Giralt (1996) sub *B.* cf. *sequax* (specimens PB14599, 14713); CW [c]

Buellia disciformis (Fr.) Mudd
van den Boom & Giralt (1996); Giralt *et al.* 2000 a; PB 35898 (Cacela Velha); PB41888 (Alte); PB45234 (Mexilhoeira Grande); CE,CW,IE,IW [Ce,Fi,Ol,Pr,Qs]

Buellia dispersa A. Massal.
PB32461 (Picota); PB35773 (Cascata Moinhos de Rocha); MB49969 (Monchique); CE,IE,SM [s]

Buellia erubescens Arnold
PB32404 (Monchique); PB41713 (Pé de Coelho); IE,SM [Fi]

Buellia griseovirens (Turner & Borrer ex Sm.) Almb.
Tavares (1947) as *Buellia betulina* (Hepp) Th. Fr.; Nordin (2000); SM [Ju]

Buellia iberica Giralt
van den Boom & Giralt (1996) as *Buellia zahlbruckneri* Steiner; Giralt & Llimona (2000); MB49941 (Monchique); IE,SM [Ce,Qs]

Buellia leptocline (Flot.) A. Massal.
Arnold (1868); IW [sa]. Doubtful record!

Buellia leptoclinoides (Nyl.) J. Steiner
Paz-Bermúdez & Giralt (2010); PB32379 (Ponte de Aspa); PB41488 (Loulé); PB41805 (Silves); PB45273 (Odeceixe); AW,CE,CW,IE,IW [Fi,Ol,Pr,Pt,Qs,s]

Buellia mediterranea Giralt
Giralt & Llimona (2000); PB32588 (Bensafrim); PB35838 (Tavira); PB41485 (Loulé); CE,CW [Fi,Pt]

Buellia parasema De Not.
Arnold (1868); CE [Ce]. Doubtful record, we do not know what it is, we have not seen the type.

Buellia sardiniensis J. Steiner
Algarve: Vàle de Povar, próx. Albufeira, s/ as rochas, 29.3.1951, Tav. (LISU-3855, sub. *B.* sp.).

Buellia cf. ***sardiniensis*** J. Steiner
Paz-Bermúdez & Giralt (2010); SM [s]

Buellia schaereri De Not.
PB36045 (Vaqueiros); IE [Qr,Qs]

Buellia spuria (Schaer.) Anzi
PB45142 (Monchique); SM [s]

Buellia stellulata (Taylor) Mudd
PB32608 (Aljezur); AW [s]
Buellia subdisciformis (Leight.)Vain.
PB45176, 45188 (Aljezur); AW [s]
Buellia subsquamosa J. Steiner
PB35922 (Carapoteira); IE [s]
Buellia tesserata Körb.
PB32372 (Ponte de Aspa); AW [s]
Buellia tyrolensis Körb.
PB36072 (Alcarias); IE [s]
Caloplaca aegatica Giralt, Nimis & Poelt
Giralt *et al*. (1992); van den Boom & Giralt (1996); PB32328 (Barão de São João); PB35978 (Fonte Benémola); PB41506, 41520 (Paderne); PB41813 (Guenos); CE,CW,IE,IW,SM [Al,Ce,Fi,Ol,Pr,Pu]
Caloplaca alociza (A. Massal.) Mig.
van den Boom & Giralt (1996); CW [c]
Caloplaca aquensis Houmeau & Cl. Roux
PB14707 (Sagres); AW [c]
Caloplaca arenaria (Pers.) Müll. Arg.
van den Boom & Giralt (1996); SM [s]
Caloplaca aurantia (Pers.) Hellb.
Arnold (1868) as *Callopisma aurantiacum* (Lightf.) A. Massal.; Coutinho (1916) as *Caloplaca callopisma* (Ach.) Th. Fr.; van den Boom & Giralt (1996); PB41895 (Alte); AW,CW,IE,IW [c]
Caloplaca calcitrapa Nav.-Ros., Gaya & Cl. Roux
PB45212 (Rocha dos Soidos); IE [c]
Caloplaca carphinea (Fr.) Jatta
PB35770 (Cascata Moinhos de Rocha); CE,IE [s]
Caloplaca cerina (Ehrh. ex Hedw.) Th. Fr.
van den Boom & Giralt (1996); PB45041 (Atalaia); CW [Fi,Ce]
Caloplaca cerinella (Nyl.) Flagey
PB41657 (São Marcos da Serra); IW [ut]
Caloplaca cerinelloides (Erichsen) Poelt
PB35882 (São Miquel); CE [Ol]
Caloplaca chalybaea (Fr.) Müll. Arg.
PB41501 (Loulé); MB49981 (Carvoeiro); CE,CW [so]
Caloplaca chlorina (Flot.) H. Olivier
Arnold (1868) *Callopisma cerinum* var. *chlorinum* (Flot.) Körb.; SM [s]
Caloplaca chrysophthalma Degel.
PB32395 (Cabo de São Vicente); PB45284 (Odeceixe); AW [Jn]
Caloplaca citrina (Hoffm.) Th. Fr.
Coutinho (1916); van den Boom & Giralt (1996); CE,CW,SM [Ju,c]
Caloplaca crenularia (With.) J. R. Laundon
Arnold (1868) as *Blastenia ferruginea* (Huds.) A. Massal. var. *saxicola* A. Massal.; Sampaio (1970) as *Caloplaca caesiorufa* Oliv.; PB35805 (Alcaria do Cume); PB45282 (Odeceixe); AW,IE,IW,SM [s]

Caloplaca crenulatella (Nyl.) H. Olivier
van den Boom & Giralt (1996); CW[c]

Caloplaca cretensis (Zahlbr.) Wunder
PB14723,14725 (Zavial); CW [c]

#*Caloplaca dakotensis* Wetmore
PB35813 (Pechão); CE [ush]

Caloplaca egeana Cl. Roux & Nav.-Ros.
Roux & Navarro-Rosinés (1992); PB854 (Sagres); PB32564 (Pontal da Carrapateira); PB45200 (Rocha dos Soidos); AW,IE [c]

Caloplaca erythrocarpa (Pers.) Zwackh.
van den Boom & Giralt (1996); PB32512 (Amorosa); AW,CW [c]

Caloplaca ferruginea (Huds.) Th. Fr.
Coutinho (1916) as *Blastenia ferruginea* (Huds.) Körb.; van den Boom & Giralt (1996); PB35900 (Cacela Velha); PB41807 (Guenos); PB45207 (Rocha dos Soidos); CE,IE,IW,SM [Ar,Ca,Ce,Ca,Fi,Ol]

Caloplaca flavescens (Huds.) J. R. Laundon
PB32507a (Gralheira); CW [c]

Caloplaca flavorubescens (Hudson) J. R. Laundon
PB45297 (Odeceixe); AW [Jn]

Caloplaca fuscoblastidiata van den Boom & Etayo
van den Boom & Etayo (1995); van den Boom & Giralt (1996); PB35992 (Fonte Benémola); PB41715 (Pé de Coelho); PB41737 (Rocha de Pena); CE,IE [Ce,Ol,Q,bfb]

Caloplaca haematites (Chaub. ex St. Amans) Zwackh
van den Boom & Giralt (1996); MB49990 (Carvoeiro); CW **[**Ce**,**Fi]

Caloplaca irrubescens (Arnold) Zahlbr.
PB35776 (Cascata Moinhos de Rocha); PB36069 (Martim Longo); CE, IE [s]

Calploaca limonia Nimis & Poelt
PB32507 (Amarosa Gralheira); CW [c]

Caloplaca littorea Tav.
van den Boom & Rico (2006); Tavares (1956); PB32563 (Carrapateira); AW [s]

Caloplaca lucifuga G. Thor
van den Boom & Giralt (1996); IE [Ce]

Caloplaca luteoalba (Turner) Th. Fr.
Sampaio (1970) as *Lecanora luteoalba* (Turner) Duby, no further data

Caloplaca navasiana Nav.-Ros. & Cl. Roux
Navarro-Rosines & Roux (1995); PB14725a (Zavial); CW [c]

Caloplaca obliterans (Nyl.) Blomb. & Forssell
Sampaio (1970) as *Lecanora obliterans* Nyl.; IW [s]

Caloplaca obscurella (Lahm ex Körb.) Th. Fr
van den Boom & Giralt (1996); van den Boom (2010); PB32317 (Bensafrim); PB36004 (Fonte Benémola); PB41740 (Rocha da Pena); PB41602 (Alportel); PB41798 (Guenos); CE,IE,IW,SM [Ce,Fi,Ol,Pn,Qc,Qi,Ro]

Caloplaca ochracea (Schaer.) Flagey
Sampaio (1970) as *Lecidea ochracea* Wedd.; van den Boom & Giralt (1996); CW,IE [c]

Caloplaca pollinii (A. Massal.) Jatta
van den Boom & Giralt (1996); PB32316 (Bensafrim); PB 35889 (Moncarapacho); PB35963 (Fonte Benémola); PB41482 (Loulé); PB45217 (Rocha dos Soidos); CE,CW,IE,IW,SM [Ar,Ce,Cl,Fi,Ol,Pt]

Caloplaca pyracea (Ach.) Th. Fr.
Coutinho (1916) as *Caloplaca aurantiaca* (Lightf.) Th. Fr.; van den Boom & Giralt (1996) as *Caloplaca holocarpa* (Ach.) Wade; PB41775 (Carvoeiro); PB45046 (Atalaia); AW,CW,IW,SM [Ce,Fi,Pr,Pt,ush,ut]

Caloplaca saxicola (Hoffm.) Nordin
Arnold (1868) as *Amphiloma murorum* (Hoffm.) Körb.; Coutinho (1916) as *Lecanora saxicola* (Pollich.) Ach.; Tavares (1939) as *Caloplaca murorum* (Hoffm.) Th. Fr.; AW,SM [s]

Caloplaca scotoplaca (Nyl.) H. Magn.
PB35803 (Alcaria do Cume); PB41635 (Bastos); IE,IW [sw,s]

#*Caloplaca stanfordensis* H. Magn.
PB32389 (São Vicente); AW [ush]

Caloplaca suaedae O.L. Gilbert & Coppins **s. l.**
PB32389 (Cabo de São Vicente); PB32570 (Ponta da Carrapateira); AW,CW [ush,Jn]

Caloplaca subochracea (M. Choisy & Werner) Clauzade & Cl. Roux
PB45028 (Lagos); CW [c]

Caloplaca tavaresiana Nav.-Ros. & Cl. Roux
Navarro-Rosines & Roux (1993); PB14707a (Sagres); AW [c]

Caloplaca teicholyta (Ach.) Steiner
PB45038 (Atalaia); CW [tl]

Caloplaca tenuatula (Nyl.) Zahlbr.
van den Boom & Giralt (1996), published as a dubious record; AW [c]

Caloplaca ulcerosa Coppins & P. James
PB32323 (Pontal da Carrapateira); CW [Jn]

Caloplaca variabilis (Pers.) Müll. Arg.
van den Boom & Giralt (1996); PB32477 (Ferragudo); PB41766 (Rocha da Pena); PB45027 (Lagos); CW,IE **[**c]

Candelaria concolor (Dickson) B. Stein
Coutinho (1916); Jones (1980); van den Boom & Giralt (1996); PB32457 (Monchique); PB45349 (Alferce); PB45148 (Aljezur); AW,SM [Ce,Cl,Fr, Ju,Ol]

Candelariella aurella (Hoffm.) Zahlbr.
van den Boom & Giralt (1996); AW [c]

Candelariella coralliza (Nyl.) H. Magn.
Tavares (1944, 1958); SM [s]

Candelariella reflexa (Nyl.) Lettau
Jones (1980); van den Boom & Giralt (1996); PB41725 (Alte); PB45247 (Arão); CW,IE,SM [Al,Ce,Ju,Ol]

Candelariella vitellina (Hoffm.) Müll. Arg.
Arnold (1868); Coutinho (1916); Jones (1980); van den Boom & Giralt (1996); PB45221 (Arão); CE,CW,SM [Ol,s]

Candelariella xanthostigma (Ach.) Lettau
PB36105 (Conceição); CE [ut]

#*Canoparmelia aptata* (Kremp.) Elix & Hale
PB41794; IW [Fi]

Carbonea vorticosa (Flörke) Hertel
van den Boom & Giralt (1996); SM [s]

Catapyrenium cinereum (Pers.) Körb.
Arnold (1868) as *Endopyrenium hepaticum* (Ach.); IW [t]. Though the type of *E. hepaticum* is *Catapyrenium cinereum*, the name *E. hepaticum* auct. was used for *Placidium* species! It is sure there is no *Catapyrenium cinereum* in Algarve, it is an alpine species (pers. comm. O. Breuss).

Catapyrenium psoromoides (Borrer) R. Sant.
PB35819 (Portela); PB41834 (Salir); IE [Ol,bfb]

Catillaria atomarioides (Müll. Arg.) Kilias
van den Boom & Giralt (1996); PB35970 (Fonte Benémola); PB45405 (Vila do Bispo); CW,IE,SM [Fi,s] ±on *Parmotrema reticulatum*, on *Aspicilia*

Catillaria chalybeia (Borrer) A. Massal.
Arnold (1868); PB32380 (Ponte de Aspa); PB35915 (Cacela Velha); PB41625 (Bastos); PB45171 (Aljezur); PB45384 (Castelejo); PB45287 (Odeceixe); AW,IE,IW,SM [c,s,so,sw]

Catillaria fungoides Etayo & van den Boom
van de Boom & Etayo (2001); PB32535 (Amorosa); PB35756 (Cascata Moinhos de Rocha); PB41685 (São Marcos da Serra); PB41475 (Estoi); CE,CW,IE,IW [Ar,Ce,Fi,Mi,Qs]

Catillaria nigroclavata (Nyl.) Schuler
PB32525 (Amorosa); PB35880 (São Miquel); PB41819 (Loulé); PB41712 (Pé de Coelha); CE,CW,IE,IW,SM [Ar,Ce,Cl,Fi,Ju,Ol,Pu,Qi] ±on *Parmotrema*

Catinaria atropurpurea (Schaer.) Vězda & Poelt
PB45110 (Perna da Negra); SM [Ol]

Catocarpus confervoides (Rabenh.) Arnold
Arnold (1868) as *Buellia confervoides* Rabenh.; SM [s]

Cecidonia xenophana (Körber) Triebel & Rambold
PB45366 (Picota); SM [s] (cf.) on *Porpidia*;

Cetraria aculeata (Schreber) Fr.
Coutinho (1916); Jones (1980) as *Coelocaulon aculeatum* (Schreber) Link; PB45369 (Picota); CE,SM [s]

Cetraria crespoae (Barreno & Vázquez) Kärnefelt
PB32472 (Picota); PB35799 (Alcaria do Cume); IE,SM [Cy,ush]

Cetrelia olivetorum (Nyl.) W. L. Culb. & C. F. Culb.
Coutinho (1916) as *Parmelia olivetorum* (Ach.) Nyl.; CE [Fi]

Chromatochlamys muscorum (Fr.) H. Mayrhofer & Poelt
van den Boom & Giralt (1996); SM [s,sand,t]

Chrysothrix candelaris (L.) J. R. Laundon
Laundon (1981); PB35919 (Carapoteira); PB36044 (Vaqueiros); PB41841 (Salir); IE [Ce,Qr,s]

Cladonia arbuscula (Wallr.) Flot.
Coutinho (1916) as *C. sylvatica* (L.) Hoffm.; SM [s]

Cladonia cervicornis (Ach.) Flot. ssp. ***cervicornis***
Arnold 1868; Burgaz *et al.* (1999); Burgaz & Ahti (2009); PB32315 (Barragem da Bravura); PB36015 (Cachopo); PB41545 (Marreiros); AW,CE,IE, IW,SM [s,t]

Cladonia cervicornis ssp. ***verticilata*** (Hoffm.) Ahti
Coutinho (1916); as *C. verticillata* Hoffm.; van den Boom & Giralt (1996); PB35793 (Alcaria do Cume); PB45322 (Odeceixe); AW,IE,IW,SM [s,t]

Cladonia ciliata Stirt.
Burgaz *et al.* (1999); Burgaz & Ahti (2009); SM [t]

Cladonia ciliata Stirt. var. ***tenuis*** (Flörke) Ahti
PB45136 (Monchique); SM [s]

Cladonia coniocraea (Flörke) Spreng.
PB45054,45069 (Monchique); SM [Ol,s]

Cladonia convoluta (Lam.) Anders
Coutinho (1916); Burgaz *et al.* (1999); CE,CW [t]

Cladonia cyathomorpha Stirton ex W. Watson
Burgaz *et al.* (1999); Burgaz & Ahti (2009); PB32416, MB49926 (Monchique); SM [Ol]

Cladonia dimorpha S. Hammer
PB32281 (Aljezur); PB35800 (Alcaria do Cume); PB41546 (Marreiros); PB45127, 45351 (Monchique); AW,IE,SM [t]

Cladonia fimbriata (L.) Fr.
Coutinho (1916); Burgaz & Ahti (2009); PB45063 (Monchique); CE,SM [Ol,t]

Cladonia firma (Nyl.) Nyl.
Coutinho (1916); Tavares (1944 a) as *C. nylanderi* P. Cout.; Burgaz *et al.* (1999); Burgaz & Ahti (2009); CW,SM [s,t]

Cladonia foliacea (Huds.) Willd.
Burgaz *et al.* (1999); Burgaz & Ahti (2009); PB35790 (Alcaria do Cume); PB41547 (Marreiros); PB45160 (Aljezur); PB45321 (Odeceixe); AW,CE, CW,IE,SM **[s,**t]

Cladonia furcata (Huds.) Schrad.
Burgaz *et al.* (1999); Burgaz & Ahti (2009); PB45128 (Casa Queimeda); SM [t]

Cladonia glauca Flörke
Burgaz & Ahti (2009); [s], no further data

Cladonia hammeri Ahti
Burgaz & Ahti (2009); SM [Ar]

Cladonia humilis (With.) J. R. Laundon
Burgaz *et al.* (1999); Burgaz & Ahti (2009); PB41546 (Marreiros); PB45050, 45052, 45071, 45362 (Monchique); CE,IE,SM [Ar,Ol,t]

Cladonia mediterranea P. A. Duvign. & Abbayes
Burgaz *et al.* (1999) as *Cladina mediterranea* (P. A. Duvign. & Abbayes) Follmann & Hern.-Padr.; Burgaz & Ahti (2009); CW,CE [t]

Cladonia mitis Sandst.
Tavares (1944 a); CW [t]

Cladonia phyllophora Ehrh. ex Hoffm.
PB45123 (Monchique); SM [t]

Cladonia pocillum (Ach.) Grognot
Burgaz *et al.* (1999); Burgaz & Ahti (2009); [c], no further data.

Cladonia portentosa (Dufour) Coem.
Burgaz & Ahti (2009); AW [t]

Cladonia prolifica Ahti & S. Hammer
Burgaz & Ahti (2009); [t], no further data.

Cladonia pseudopityrea Vainio
Burgaz *et al.* (1999); Burgaz & Ahti (2009); SM [Ol,t]

Cladonia pulvinata (Sandst.) van Herk & Aptroot
Burgaz & Ahti (2009); [t], no further data

Cladonia pyxidata (L.) Hoffm.
Burgaz *et al.* (1999); Burgaz & Ahti (2009); CE,SM [Ol,t]

Cladonia ramulosa (With.) J. R. Laundon
Burgaz *et al.* (1999); Burgaz & Ahti (2009); PB323421, 45066 (Monchique); IE,SM [Ol,Qs,s,t]

Cladonia rangiferina (L.) F. H. Wigg.
Estácio da Veiga (1869); Burgaz *et al.* (1999); Burgaz & Ahti (2009); SM [s,t]

Cladonia rangiformis Hoffm.
Arnold (1868) as *Cladonia pungens* (Ach.) Flörke ; Coutinho (1916) as *C. muricata*; Burgaz *et al.* (1999); Burgaz & Ahti (2009); PB32417 (Monchique); PB45407 (Odeceixe); AW,IW,SM [t]

Cladonia subcariosa Nyl.
Burgaz *et al.* (1999); Burgaz & Ahti (2009); SM [t]

Cladonia subcervicornis (Vain.) Kernst.
Tavares (1944); Burgaz *et al.* (1999); Burgaz & Ahti (2009); IE,SM [s,t]

Cladonia subrangiformis Sandst.
Burgaz & Ahti (2009); [c,t], no further data.

Cladonia subturgida Samp.
van den Boom & Giralt (1996) recorded as dubious; Burgaz *et al.* (1999) as *Cladonia iberica* Burgaz & Ahti; Burgaz & Ahti (2009); PB36014 (Alportel); PB36026 (Cachopo); PB36048 (Martim Longo); PB45354 (Monchique); AW,CE,IE,SM [s,t]

Cladonia subulata (L.) F. H. Wigg.
Burgaz & Ahti (2009); [t], no futher data

Clauzadea immersa (Weber) Hafellner & Bellem.
van den Boom & Giralt (1996); PB32520 (Amorosa); PB41870 (Paderne); AW,CW,IE [c]

Clauzadea metzleri (Körb.) Clauzade & Cl. Roux
van den Boom & Giralt (1996); PB32581 (Bensafrim); PB45034 (Lagos); AW,CW [c]

Clauzadea monticola (Schaer.) Hafellner & Bellem.
Coutinho (1916) as *Lecidea fuscorubens* (Nyl.) Nyl.; Sampaio (1970) as *Lecidea monticola*; van den Boom & Giralt (1996); PB41768 (Rocha da Pena); CW [c]

Cliostomum griffithii (Sm.) Coppins
Arnold (1868) as *Biatora anomala* Fr.; PB32357 (Vila do Bispo); PB45329 (Odeceixe); AW,IW [Eu,Ju,sa]

Collema auriforme (With.) Coppins & J. R. Laundon
Carvalho (2012); PB45219 (Rocha dos Soidos); IE [c]

Collema callopisma A. Massal.
van den Boom & Giralt (1996); Carvalho (2012); IE [c]

Collema coccophorum Tuck.
Sampaio (1970) as *Collema harmandi* Samp.; van den Boom & Giralt (1996); Carvalho (2012); MB49979 (Carvoeiro); CW,IE,IW [c]

Collema confertum Arnold
Carvalho (2012), no further data

Collema conglomeratum Hoffm.
van den Boom & Giralt (1996); Carvalho (2012); PB41822 (Loulé); CE,SM [Ol,Qi]

Collema crispum (Huds.) Weber ex F. H. Wigg. var. ***crispum***
Carvalho (2012), no further data

Collema crispum (Huds.) Weber ex F. H. Wigg. var. ***metzleri*** (Arnold) Degel.
Carvalho (2012), no further data

Collema cristatum (L.) F. H. Wigg
Jones (1980); Carvalho (2012); PB35861 (Pechão); PB41762 (Rocha da Pena); PB45197 (Rocha dos Soidos); CE,IE [c,t]

Collema fasciculare (L.) F. H. Wigg.
Jones (1980); van den Boom & Giralt (1996); Carvalho (2012); MB49933 (Monchique); SM [Ca,Ol]

Collema fragile Taylor
Carvalho (2012); [c], no further data

Collema fragrans (Sm.) Ach.
Jones (1980); Carvalho (2012); IW,SM, no further data

Collema furfuraceum (Arnold) Du Rietz
Jones (1980); van den Boom & Giralt (1996); Carvalho (2012); PB45116 (Monchique); SM [Fi,Ol,Qs,Ro] (f)

Collema fuscovirens (With.) J. R. Laundon
Carvalho (2012); PB45208 (Rocha dos Soidos); IE [c]

Collema italicum de Lesd.
Jones (1980); Carvalho (2012); PB35962 (Fonte Benémola); MB49967 (Monchique); IE,SM [Ol]

Collema latzelii Zahlbr.
van den Boom & Giralt (1996); Carvalho (2012); IE [c]

Collema multipunctatum Sm.
Jones (1980); van den Boom & Giralt (1996); Carvalho (2012); PB45245 (Arão); MB49995 (Carvoeiro); CW,IE,SM [Fi,Pr;Ol,Qs]

Collema nigrescens (Huds.) DC.
Arnold (1868) as *Synechoblastus vespertilio* (Lightf.) Hepp; Coutinho (1916) as *C. vespertilio* (Lightf.) Wain.; Jones (1980); van den Boom & Giralt (1996); Carvalho (2012); PB41552 (Aguas Frias do Meio); PB45218 (Rocha dos Soidos); CE,CW,IE,SM [Ca,Ce,Fa,Fi,Fr,Ju,No,Ol,Q,c]

Collema occultatum Bagl.
Jones (1980); Carvalho (2012); PB36032 (Cachopo); PB45241 (Arão); PB41514 (Paderne); PB45225 (Mexilhoeira Grande); CE,CW, IE [Ol,Qc]

Collema polycarpon Hoffm. subsp. *corcyrense* (Arnold) Pišút
Carvalho (2012); [c], no further data

Collema ryssoleum (Tuck.) A. Schneider
Carvalho (2012); [s], no further data

Collema subflaccidum Degel.
Jones (1980); Carvalho (2012); PB36093 (Leziria); CE,SM [Ac,Ce,Ol,Qi,t]

Collema subnigrescens Degel.
Jones (1980); van den Boom & Giralt (1996); Carvalho (2012); MB49896 (Monchique); IE,IW,SM [Ce,Fi,Ol,Qu]

Collema tenax (Sw.) Ach. em. Degel.
Arnold (1868), Coutinho (1916) as *C. pulposum* (Bernh.) Ach.; Carvalho (2012); PB35871 (Pechão); PB41902 (Alte); CE,CW,IE,IW [t]

Collemopsidium stenosporum Samp.
Sampaio (1970); Paz Bermúdez *et al*. (2002); CW [c]

Coscinocladium gaditanum (Clemente) A. Crespo, Llimona & D. Hawksw.
Sampaio (1970); Paz-Bermúdez *et al*. (2002) both as *Lecanora lisbonensis* Samp.; Paz-Bermúdez & Giralt (2010); PB32511 (Amorosa); CW [c,s]

Cresporhaphis aff. ***macrospora*** (Eitner) Aguirre
van den Boom & Giralt (1996); [Ol], a doubtful record

Cryptolechia carneolutea (Turner) A. Massal.
Coutinho (1916); CE [No], as *Gyalecta carneolutea* (Turn.) Nyl.

****Dactylospora lobariella*** (Nyl.) Hafellner
van den Boom & Etayo (2000); SM [Ol] on *Lobaria pulmonaria*.

****Dactylospora parasitica*** (Flörke) Zopf
Arnold (1868) as *Leciographa florkii* (Körb.) A. Massal.; PB35955 (Fonte Benémola); PB41720 (Péde Coelho); PB41686 (São Marcos da Serra); IE,SM [Ce,Ol,Qi,s] on *Pertusaria, Ochrolechia parella* and cf. *Ochrolechia*.

****Dactylospora parellaria*** (Nyl.) Arnold
van den Boom & Etayo (2000); SM [s] on *Ochrolechia parella*

Degelia cyanoloma (Schaer.) H. H. Blom & L. Lindblom
Blom & Lindblom (2010); SM, no further data

Degelia plumbea (Lightf.) P. M. Jørg. & P. James
Estácio da Veiga (1869) as *Pannaria plumbea* (Light.) Bory; Arnold (1868) as *Pannaria plumbea*; Coutinho (1916) as *Parmeliella plumbea*

(Lightf.) Körb.; Jones (1980); van den Boom & Giralt (1996); Carballal *et al*. (2010); PB32414 (Monchique); PB45078 (Monchique); SM [Ca,Ol,Qs]

Dendriscocaulon umhausense (Auersw.) Degel.
Jones (1980); PB45076 (Monchique); SM [Ol,Qs]

Dermatocarpon luridum (With.) J. R. Laundon
Estácio da Veiga (1869) as *Endocarpon fluviatile*; Coutinho (1916); SM [s]

Dimelaena radiata (Tuck.) Hale & W. L. Culb.
PB32610 (Ponte de Aspa); PB45315 (Odeceixe); AW,CW [Fi,s,ush]

Dimerella lutea (Dicks.) Trevis.
Alvarez (2004), no further data

Dimerella pineti (Ach.) Vězda
Alvarez (2004), no further data

Diploicia canescens (Dicks.) A. Massal.
Coutinho (1916) as *Buellia canescens* (Dicks.) De Not.; Jones (1980); van den Boom & Giralt (1996); Paz-Bermúdez & Giralt (2010); PB32340 (Barão de São João); PB35934 (Fonte Salgada); PB36079 (Leziria); PB41518 (Paderne); AW,CE,IE, [Ce,Fi,No,Qs,c,s]

****Diplolaeviopsis ranula*** Giralt & D. Hawksw.
PB41694 (Anzilheira); IE [ush] on *Lecanora strobilina*

Diploschistes actinostomus (Ach.) Zahlbr.
PB45157 (Aljezur); AW [s]

Diploschistes diacapsis (Ach.) Lumbsch
van den Boom & Giralt (1996); PB41866 (Paderne); AW,IE [t]

Diploschistes ocellatus (Vill.) Norman
Coutinho (1916); IW [t]

Diploschistes scruposus (Schreb.) Norman
Arnold (1868) as *Urceolaria scruposa* (Schreb.) Ach. var. *arenaria* Schaer.; PB41588 (Javall); PB45365 (Picota); IE,IW,SM [s,so]

Diplotomma alboatrum (Hoffm.) Flot.
PB41618 (Bastos); PB45292 (Odeceixe); AW,IW [s,sw]

Diplotomma ambiguum (Ach.) Flagey
van den Boom & Giralt (1996); AW [s]

Diplotomma epipolium (Ach.) Arnold
Arnold (1868); IW [sa]

Diplotomma venustum (Körb.) Körb.
PB32475 (Ferragudo); PB41774 (Carvoeiro); CW [c,s]

Dirina ceratoniae (Ach.) Fr.
van den Boom & Giralt (1996); AW [ush]

Dirina massiliensis Durieu & Mont. f. ***massiliensis***
van den Boom & Giralt (1996); PB32384 (Cabode São Vicente); PB45190 (Aljezur); PB45278 (Odeceixe); AW [c,s]

Dirina massiliensis Durieu & Mont. f. ***sorediata*** (Müll. Arg.) Tehler
PB35936 (Fonte Salgada); IE [s]

Eiglera flavida (Hepp) Hafellner
Arnold (1868) as *Aspicilia flavida* (Hepp) Arnold; IW [sa]

Endocarpon pusillum Hedw.
van den Boom & Giralt (1996); AW,IE [t]

****Endococcus parietinarius*** (Linds.) Clauz. & Cl. Roux
PB45024 (Lagos); CW [sw] on *Xanthoria parietina*

****Endococcus propinquus*** (Körb.) D. Hawksw.
Sampaio (1970) as *Tichothecium gemmiferum* Körb., SM, no further data

****Endococcus pseudocarpus*** Nyl.
López de Silanes *et al.* (2009); SM [t] on *Leptogium*

****Endococcus ramalinarius*** (Linds.) D. Hawksw.
PB41664 (São Marcos da Serra); IE [Mi] on *Ramalina* sp.

Endohyalina ericina Giralt, van den Boom & Elix var. *boomii* (Giralt) Giralt, van den Boom & Elix
Giralt (2001); as *Rinodina ericina* var. *boomii* Giralt; Giralt (2010); Giralt *et al.* (2010); PB45246 (Arão); CW [Ol]

Endohyalina kalbii (Giralt & Matzer) Giralt, van den Boom & Elix
Giralt *et al.* (1996b); van den Boom & Giralt (1996); Giralt (2001) all as *Rinodina kalbii* Giralt & Matzer; Giralt (2010); Giralt *et al.* (2010); PB32394 (Cabo de São Vicente); PB45298 (Odeceixa); PB45336 (Aljezur); AW [Jn,ush]

Ephebe lanata (L.) Vain.
van den Boom & Giralt (1996); PB45135 (Chilrão); SM [s]

Epiphloea terrena (Nyl.) Trevis.
PB41871 (Paderne); IE [t]

Evernia prunastri (L.) Ach.
Jones (1980); SM [Ce,Qs]

Flavoparmelia caperata (L.) Hale
Estácio da Veiga (1869) as *Parmelia caperata* (L.) Ach.; Coutinho (1916); Jones (1980) as *Parmelia caperata*; PB35989 (Fonte Benémola); PB41566 (Alte); CE,IE,SM [Ca,Ce,Qs]

Flavoparmelia soredians (Nyl.) Hale
Jones (1980) as *Parmelia soredians* Nyl.; van den Boom & Giralt (1996); PB32330 (Bensafrim); PB35828 (Pedras d'el Rei); PB41553,41556 (Aguas Frias do Meio); PB45018 (Alvor); CE,CW,IE,IW [Ce,Fi,Ol]

Fulgensia bracteata (Hoffm.) Räsänen
Arnold (1868) as *Gyalolechia bracteata* (Hoffm.) Körb.; Coutinho (1916) as *Caloplaca bracteata* (Ach.) Jatta; PB35874 (Vale de Gralhas); PB36009 (Fonte Benémola); PB36009 (Fonte Benémola); PB41494 (Loulé); PB41779 (Carvoeiro); PB41864 (Paderne); CE,CW,IE,IW [t]

Fulgensia subbracteata (Nyl.) Poelt
van den Boom & Giralt (1996); AW,IE [t]

\#***Fulvophyton sorediata*** (Sparrius, P. James & M. A. Allen) van den Boom
See above

Fuscidea cyathoides (Ach.) Wirth & Vězda
van den Boom & Giralt (1996); SM [s]

Fuscopannaria mediterranea (Tav.) P. M. Jørg.
Jones (1980); van den Boom & Giralt (1996) as *Pannaria mediterranea* Tav.; Paz-Bermúdez et al. (2010); PB32459 (Monchique); PB35949 (Fonte

Benémola); PB41564 (Alte); PB41723 (Pé de Coelho); PB41836 (Salir); PB45070 (Monchique); IE,SM [Ce,Ol] (f)

Fuscopannaria olivacea **(**P. M. Jørg.) P. M. Jørg.
Jones (1980); van den Boom & Giralt (1996); Paz-Bermúdez *et al*. (2010); PB35948,35954 (Salir); PB36005 (Fonte Benémola); PB41564 (Alte); PB41755 (Rocha da Pena); CE,IE [Ce,Ol,Qi,Pr]

Graphis elegans (Borrer ex Sm.) Ach.
Carballal & López de Silanes (2004), no further data.

Gyalecta derivata (Nyl.) H. Olivier
van den Boom & Giralt (1996); PB32489 (Ferragudo); PB41696 (São Marcos da Serra); AW,CW,IE,SM [Ce,Fr,Ju,Ol]

Gyalecta truncigena (Ach.) Hepp
López de Silanes & Álvarez (2004); PB36029 (Cachopo); PB41676 (São Marcos da Serra); IE [Ce,Qc,Qi]

Gyalidea minuta van den Boom & Vězda
van den Boom & Vězda (1995); van den Boom & Giralt (1996); López de Silanes & Álvarez (2004)**;** SM [Al]

Halecania viridescens Coppins & P. James
van den Boom & Giralt (1996); PB41607 (Alportel); PB45089 (Monchique); PB45363 (Picota); IE,IW,SM [Al,Ar,Ce,Fr,Ol,Pn,Pu,Ro]

Heppia despreauxii (Mont.) Tuck.
Egea (1989) as *H. gigantea* Egea & Llimona; PB41872, 41886 (Alte); CE,CW,IE [t]

Heppia echinulata Marton & Galun
PB41890 (Alte); IE [t]

Heppia lutosa (Ach.) Nyl.
PB32358 (Ponte de Aspa); PB32547 (Carrapareira); MB49977 (Carvoeiro); AW [t]

Heppia solorinoides (Nyl.) Nyl.
Sampaio (1970) as *H. reticulata* (Duf.) Nyl.; PB35867 (Pechão); PB41884 (Alte); IW,CE [t]

Heterodermia japonica **(**Sato) Swinscow & Krog
MB49940 (Monchique); SM [Ol]

Heterodermia leucomela (L.) Poelt
Estácio da Veiga (1869) as *Physcia leucomela* (L.) Michx; Jones (1980); PB32401 (Monchique); SM [Ol]

Heterodermia obscurata (Nyl.) Trevis.
PB32304 (Aljezur); AW [s]

Heteroplacidium imbricatum (Nyl.) Breuss
van den Boom & Giralt (1996); PB32582 (Bensafrim); CW,IE [c]

Hyperphyscia adglutinata (Flörke) H. Mayrhofer & Poelt
Jones (1980); van den Boom & Giralt (1996); PB35881 (Moncarapacho); PB35909 (Cacela Velha); PB41641 (Bastos); PB45150 (Aljezur); AW,CE, IE,IW,SM [Al,Cl,Ol,Qi,s]

Hypogymnia physodes (Schaer.) Hav.
Arnold (1868) as *Imbricaria physodes* (L.) DC.; Jones (1980); SM [Qs]

Hypogymnia tubulosa (L.) Nyl.
Jones (1980); PB32470 (Picota); SM [ush]

Hypotrachyna minarum (Vain.) Krog & Swinscow
Jones (1980) as *Parmelia minarum* Vain.: IW, no further data

Hypotrachyna revoluta (Flörke) Hale
Jones (1980) as *Parmelia revoluta* Flörke, no further data

Japewiella tavaresiana (H. Magn.) Printzen
van den Boom & Giralt (1996) as *Japewia carrollii* Coppins & P. James; PB32405 (Monchique); SM [Ol,w]

+*Julella lactea* (A. Massal.) M. E. Barr
Arnold (1868) as *Polyblastia lactea* (A. Massal.) Trevis. var. *geophila* Arnold; Aptroot & van den Boom (1995); CE,CW [Ce,Fi]

+*Julella sericea* (A. Massal.) Coppins
Aptroot & van den Boom (1995); PB35763 (Cascata Moinhos de Rocha); PB41503 (Paderne); CE,CW,IW [Ol,Pr]

+*Julella vitrispora* (Cooke & Harkness) M. E. Barr
Aptroot & van den Boom (1995); CW [Ce]

Koerberia biformis A. Massal.
Jones (1980); van den Boom & Giralt (1996); Burgaz (2011); PB32349 (Monchique); PB35929 (Conceiçao); PB41729 (Pé de Coelho); PB45244 (Arão); CW,IE,SM [Ol,Pr]

******Labrocarpon canariensis*** (D. Hawksw.) Etayo & Pérez-Ortega
PB32313 (Aljezur); PB36037 (Cachopo); AW,IE [Qro,s] on *Pertusaria*

******Laeviomyces pertusariicola*** (Nyl.) D. Hawksw.
van den Boom & Giralt (1996); IW [Qu] on *Pertusaria*

Lasallia pustulata (L.) Mérat
Estácio da Veiga (1869) as *Umbilicaria pustulata* (L.) Hoffm.; Arnold (1868), Coutinho (1916) as *Umbilicaria pustulata* (L.) Hoffm.; van den Boom & Giralt (1996); PB45355(Alferce); SM [s]

Lecania cyrtella (Ach.) Th. Fr.
PB32536 (Amorosa); PB41782 (Carvoeiro); PB41642 (São Marcos da Serra); CW,IW [Fi,Fr,Pt,ush]

Lecania fructigena Zahlbr.
PB32571 (Carrapareira); AW [s]

Lecania inundata (Hepp) M. Mayrhofer
van den Boom & Giralt (1996); PB45279 (Odeceixe); PB41619 (Bastos); AW,IW,SM [Qi,sw]

#*Lecania juniperi* van den Boom
See above

Lecania naegelii (Hepp) Diederich & van den Boom
van den Boom & Giralt (1996); PB35757 (Cascata Moinhos de Rocha); PB41603 (Alportel); PB45228 (Arão); CE,CW,IE,IW,SM [Ce,Fi,Fr,Ol,Pu,ut]

Lecania poeltii van den Boom, Alfonso & Egea
van den Boom *et al.* (1996); PB32386 (Cabo de São Vicente); PB32577 (Pontal da Carrapateira); AW [Ju,s,ush]

Lecania rabenhorstii (Hepp) Arnold
PB45382 (Castelejo); AW [s]

Lecania spadicea (Flot.) Zahlbr.
van den Boom & Giralt (1996); PB32480 (Ferragudo); PB35895 (Cacela Velha); PB45031 (Lagos); PB45199 (Rocha dos Soidos); CE,CW,AW,IE [c,cw,tl]

Lecania turicensis (Hepp) Müll. Arg.
van den Boom & Giralt (1996); PB32295 (Aljezur); AW,CW,IE [c,sw]

Lecania viridulogranulosa (Harm.) Zahlbr.
van den Boom (2010); IE [Qi]

Lecanographa farinosa (Hepp) Egea & Torrente
Egea & Torrente (1994); AW [s]

Lecanographa lyncea (Sm.) Egea & Torrente
Arnold (1868),Torrente & Egea (1989) as *Lecanactis lyncea* (Sm.) Fr.; IW [Qs]

Lecanora albella (Pers.) Ach.
van den Boom & Giralt (1996); PB32519 (Amorosa); PB41531 (Marreiros); CW,IE,IW,SM [Ce,Ci,Cl,Ol,Qs,ut]

Lecanora albellula Nyl.
van den Boom & Giralt (1996); van den Boom & Brand (2008); IE,SM [Ol,Qu]

Lecanora allophana Nyl.
PB32494 (Ferragudo); CW [Ce]

Lecanora argentata (Ach.) Malme
Coutinho (1916); as *Lecanora subfusca* (L.) Ach.; PB35890 (Cacela Velha); PB35885 (Moncarapacho); PB45262 (Aljezur); PB41776 (Carvoeira); MB49945 (Monchique); AW,CE,CW,IE,SM [Al,Ca,Ci,Fi,Ol]

Lecanora bolcana (Pollich) Poelt
van den Boom & Giralt (1996); PB45364 (Picota); SM [s]

Lecanora campestris (Schaer.) Hue **s. l.**
Arnold (1868) as *Lecanora subfusca* (L.) Ach. var. *campestris* Schaer.; PB45286 (Odeceixa); PB45381 (Castelejo); AW,IW [s,sa,st]

Lecanora chlarotera Nyl.
PB35887 (Moncarapacho); PB36082 (Leziria); PB41498 (Loulé); PB41803 (Silves); PB41818 (Gilvrazina); AW,IW,CE,CW [Al,Ce,Fi,Ol,Qi]

Lecanora confusa Almb.
van den Boom & Giralt (1996); CW [Pr]

Lecanora diffracta (Ach.) Ach.
Arnold (1868) as *Placodium saxicolum* (Pollini) Frege var. *diffractum* Ach.; SM [s]

Lecanora dispersa (L.) Sommerf.
PB45324 (Odeceixa); AW [Ju]

Lecanora frustulosa (Dicks.) Ach.
Arnold (1868); SM [s]

Lecanora gangaleoides Nyl.
Coutinho (1916); van den Boom & Giralt (1996); MB49908 (Monchique); SM [s]

Lecanora hagenii (Ach.) Ach.
PB45402 (Amado beach); AW [s]

Lecanora horiza (Ach.) Linds.
van den Boom & Giralt (1996) as *Lecanora elapheia* Stizenb.; PB36095 (Leziria); PB41519 (Paderne); PB41820 (Loulé); PB45036 (Lagos); CE,CW,SM [Ce,Fi,Fr,Ju,Ol]

Lecanora hybocarpa (Tuck.) Brodo
PB35884 (Moncarapacho); PB41468 (Estoi); MB49997 (Carvoeiro); CE,CW [Ce,Fi,Ol]

Lecanora lividocinerea Bagl.
van den Boom & Giralt (1996); PB32287 (Aljezur); CW [Ce,Pr,Qs]

Lecanora meridionalis H. Magn.
Arnold (1868) as *L. subfusca* (L.) Ach. var. *meridionalis* Arn.; IW [sa]

Lecanora muralis (Schreb.) Rabenh.
MB49909 (Monchique); SM [s]

Lecanora orosthea (Ach.) Ach.
PB36064 (Vaqueiros); PB45143 (Monchique); IE,SM [s]

Lecanora polytropa (Ehrh.) Rabenh.
Arnold (1868) as *Biatora polytropa* (Ehrh.) Fr.; MS [s]

Lecanora praepostera Nyl.
PB32501 (Ponte de Aspa); PB45185 (Aljezur); AW [s]

Lecanora pruinosa Chaub.
van den Boom & Giralt (1996); AW [c]

Lecanora pseudistera Nyl.
van den Boom & Giralt (1996); PB32557 (Carrapateira); PB35927 (Carapoteira); PB36074 (Bentos); PB45133 (Monchique); AW,IE,IW,SM [s]

Lecanora rubicunda Bagl.
Sampaio (1970) as *Lecanora circumrubens* Samp.; van den Boom & Giralt (1996); Paz-Bermúdez *et al.* (2002); Paz-Bermúdez (2003); PB32344 (Vila Bispo); PB32534 (Amorosa); PB41525 (Paderna); PB45223 (Mexilhoeira Grande); AW,CE,CW,IE [Ce,Eu,Fi,Ol,Pt,Pu,ut]

Lecanora rupicola ssp. ***rupicola*** (L.) Zahlbr.
van den Boom & Giralt (1996); PB36058 (Martim Longo); IE,SM [s]

#*Lecanora sabinae* Hern.-Padr. & Vänskä
PB45300 (Odeceixa); AW [Ju]

Lecanora saligna (Schrad.) Zahlbr.
PB36086 (Leziria); CE [Ol]

Lecanora scutellaris (Schaer.) A. Massal.
Coutinho (1916); SM [s], not studied according to Llimona & Hladun (2001)

Lecanora semipallida H. Magn.
Arnold (1868) as *L. flotowiana* (Spreng.) Körb.; SM [s]

Lecanora sorediomarginata Rodrigues, Terrón & Elix
Rodrigues *et al.* (2011); AW,CE [Pn]

Lecanora strobilina (Spreng.) Kieff.
van den Boom & Giralt (1996); PB32402 (Monchique); PB35785 (Alcaria doCume); PB41695 (São Marcos da Serra); PB45267 (Zambujeira de Baixo); AW,IE,IW,SM [Al,Ci,Ol,Qs,Qu,bfb,ut]

Lecanora subcarnea (Lilj.) Ach.
Arnold (1868) as *Zeora trevisanii* A. Massal.; PB36063 (Vaqueiros); IE,SM [s]

Lecanora subsaligna Brand & van den Boom
PB32348 (Monchique); SM [Ol]

Lecanora sulphurea (Hoffm.) Ach.
Arnold (1868) as *Zeora sulphurea* (Hoffm.) Flot.; PB36060 (Vaqueiros); PB45288 (Odeceixa); IE,IW [s]

Lecanora aff. ***symmicta*** (Ach.) Ach.
PB35832 (Tavira); PB41484 (Cerro); PB41709 (Pé de Coelho); PB41746, 41757 (Rocha da Pena); CE,IE,IW [Ce,Fi,Pt,ut]

Lecidea adnata van den Boom & Ertz
van den Boom & Ertz (2012); PB41689 (Anzilheira); PB45121 (Casa Queimeda); IE [Qs]

Lecidea erytrophaea Flörke
PB35766 (Cascata Moinhos de Rocha); PB41598 (Alportel); PB41703 (Anzilheira); AW,CE,IE,IW [Al,Ar,Ce,Fi,Fr,Ol,Psp]

Lecidea exigua Chaumb.
PB32518 (Amorosa); PB41797 (Guenos); MB49998 (Carvoeiro); CE,CW, IE,IW,SM [Al,Fi,Ol,Psp,Pu,Qi,ut]

Lecidea fuliginosa Taylor
PB32468 (Picota); PB45137 (Monchique); SM [s]

Lecidea fuscoatra (L.) Ach.
Arnold (1868) as *Lecidea fumosa* (Hoffm.) Ach.; PB35926 (Cacela Velha); PB41608 (Javali); IE,IW, SM [s,so,sw]

Lecidea myriocarpoides Nyl.
Sampaio (1970); SM [Ca], not studied according to Llimona & Hladun (2001)

Lecidella asema (Nyl.) Knoph & Hertel
Arnold (1868) as *Lecidella sabuletorum* (Fr.) Körb. var. *coniops* Arnold; IW [sa]

Lecidella carpathica Körb.
PB41623 (Bastos); MB49915 (Monchique); IW,SM[s,sw]

Lecidella elaeochroma (Ach.) M. Choisy
Coutinho (1916); van den Boom & Giralt (1996); PB35767 (Cascata Moinhos de Rocha); PB36052 (Vaqueiros); PB41493 (Loulé); CE,CW,IE,IW,SM [Ca,Ce,Fi,Ol,Pr,Psp,Pt,Qi,Qro,ush]

Lecidella euphora (Flörke) Hertel
van den Boom & Giralt (1996); PB41554 (Aguas Frias do Meio); IE,SM [Fi,Pu]

Lecidella scabra (Taylor) Hertel & Leuckert
Arnold (1868) as *L. protrusa* (Fr.) Körb.; PB41624 (Bastos); IW [s,sw]

Lepraria jackii Tønsberg
MB49934 (Monchique); SM [Ol]
Lepraria lobificans Nyl.
van den Boom & Giralt (1996); PB41555 (Aguas Frias do Meio); PB41821 (Loulé); PB41837 (Salir); CE,IE,SM [Ce,Ol,Pn,cw]
Lepraria nivalis J. R. Laundon
van den Boom & Giralt (1996); PB35941 (Fonte Salgada); MB49964 (Monchique); IE,IW,SM [Ol,c,s,t]
Lepraria nylanderiana Kümmerl. & Leuckert
van den Boom & Giralt (1996); IW[s]
Leprocaulon microscopicum (Vill.) Gams ex D. Hawksw.
van den Boom & Giralt (1996); PB45068 (Monchique); SM [Ol,t]
Leptochidium albociliatum (Desm.) M. Choisy
Burgaz (2011); PB32467 (Picota); SM [Ol]
Leptogium brebissonii Mont.
Jones (1980); van den Boom & Giralt (1996); MB49893 (Monchique); SM [Ac,CsQs]
Leptogium cochleatum (Dicks.) P. M. Jørg. & P. James
Jørgensen & Pugh Jones (2012); IE [Ol]
Leptogium coralloideum (Mayen & Flot.) Vain.
Jørgensen (1994); PB35816 (Portela); IE [bfb]
Leptogium cyanescens (Rabenh.) Körb.
Jones (1980); van den Boom & Giralt (1996); SM [Cs,Ol]
Leptogium hybernicum M. E. Mitch. ex P. M. Jørg.
Jones (1980); SM, no further data
Leptogium lichenoides (L.) Zahlbr.
Jones (1980); IW,SM [Ol]
Leptogium magnussonii Degel. & P. M. Jørg.
van den Boom & Giralt (1996); PB35823 (Portela); IE,IW,SM [Ol,Qu]
Leptogium palmatum (Huds.) Mont.
PB45352 (Alferce); SM [s]
Leptogium pulvinatum (Hoffm.) Ortálora
PB45196 (Rocha dos Soidos); IE [c]
Leptogium resupinans Nyl.
Jørgensen & Pugh Jones (2012); IE [Ol]
Leptogium saturninum (Dickson) Nyl.
Jones (1980); IE,IW,SM [Fi]
Leptogium schraderi (Ach.) Nyl.
van den Boom & Giralt (1996); CW [c]
Leptogium subtile (Schrad.) Torss.
PB41865 (Paderne); IE [t]
Leptogium tenuissimum (Dicks.) Körb.
PB36091 (Leziria); CE [Ol]
Leptogium teretiusculum (Wallr.) Arnold
Jones (1980); van den Boom & Giralt (1996); PB32601 (Espiche); PB35946 (Fonte Benémola); CW,IE,SM [Ce,Cs,Ol,Ro,s]

Leptosphaeria ramalinae (Desm.) Sacc.
PB32288 (Aljezur); PB35999 (Fonte Benémola); CE [Ol] on *Ramalina*

Lichenochora obscuroides (Linds.) Triebel & Rambold
PB35908 (Cacela Velha); PB41512 (Paderne); CE,IE,IW [Ol,Qi,Qro] on *Phaeophyscia*

Lichenoconium erodens M. S. Christ. & D. Hawksw.
PB32603 (Espiche); PB41540, 41548 (Marreiros); CW,IE [Ol] on *Ramalina* sp., *Flavoparmelia caperata*

Lichenodiplis lecanorae (Vouaux) Dyko & D. Hawksw.
PB32388 (Cabo São Vicente); PB41541 (Marreiros); PB41710 (Pé de Coeilho); PB45307 (Odeceixe); AW,IE [Fi,Ju,Ol,Qs,ush] on *Caloplaca* sp., *Lecanora* sp., *L. albella*

#***Lichenopeltella heppiae*** van den Boom
See above

Lichenostigma elongata Nav.-Ros. & Hafellner
PB45406 (Vila do Bisopo); AW [s] on *Aspicilia*

Lichenostigma cosmopolites Hafellner & Calatayud
PB45134 (Monchique); PB36107 (Martim Longo); IE,SM [s] on *Xanthoparmelia*

Lichenostigma maureri Hafellner
PB45086 (Monchique); SM [Ol] on *Usnea*

Lichenostigma rugosa G. Thor
Thor (1985); PB41671 (São Marcos da Serra); IW [sw] on *Diploschistes*

Lichina pygmaea **(**Lightf.) Agardh
Coutinho (1916); CW [s]

Lichinella robusta Henssen
PB32568 (Carrepateira); PB35772 (Cascata Moinhos de Rocha); AW,CE [s]

Lichinella stipatula Nyl**.**
PB32466 (Picota); SM [s]

Llimonaea occulta Egea & Torrente
Torrente & Egea (1991); PB45191,45194 (Aljezur); AW [s]

Llimoniella heppiae (Nav.-Ros., Hladun & Llimona) Diederich & Ertz
PB41889 (Alte); IE [t] on *Heppia despreauxii*

Lobaria amplissima (Scop.) Forssell
Estácio da Veiga (1869) as *Ricasolia glomulifera* (Lightf.) Nyl.; Jones (1980); Burgaz & Martínez (2003); PB32397 (Monchique); SM [Ca,Ol,Qs]

Lobaria pulmonaria (L.) Hoffm.
Estácio da Veiga (1869) as *Sticta pulmonacea* (Ach.) Ach.; Coutinho (1916); Jones (1980); van den Boom & Giralt (1996); Burgaz & Martínez (2003); PB32398 (Monchique); PB45117 (Perna da Negra); CE,SM [Ol,Qi]

Lobaria scrobiculata (Scop.) DC.
Estácio da Veiga (1869) as *Sticta scrobiculata* (Scop.) Ach.; Coutinho (1916); Jones (1980); Burgaz & Martínez (2003); PB32396 (Monchique); CE,SM [Ol]

Lobaria virens (With.) J. R. Laundon
Estácio da Veiga (1869) as *Ricasolia herbacea* (Huds.) de Not.; Arnold (1868) as *Sticta herbacea* (Huds.) Ach.; Coutinho (1916), Jones (1980) as *L. laetevirens* (Lightf.) Zahlbr.; Burgaz & Martínez (2003); SM [Ca,Ol]

Lobothallia radiosa (Hoffm.) Hafellner
PB41896 (Alte); PB45156 (Aljezur); AW,IE [s]

****Marchandiomyces corallinus*** (Roberge) Diederich & D. Hawksw.
PB32537 (Monchique); PB35995 (Fonte Benémola); PB41561 (Rocha dos Soidos); PB45216 (Rocha dos Soidos); CE,IE,SM [Ce,Fi,Ol,Qu] on *Pertusaria, Physcia, Punctelia*

Maronea constans (Nyl.) Hepp
Tavares (1946); PB32408 (Monchique); SM [Ol]

Megalospora tuberculosa (Fée) Sipman
van den Boom & Giralt (1996); SM [Ol]

Melanelia sorediata (Ach.) Goward & Ahti
Arnold (1868) as *Imbricaria sprengelii* (Flotow) Körb.; SM [s]

Melanelixia fuliginosa (Fr. ex Duby) O. Blanco, A. Crespo, Divakar, Essl., D. Hawksw. & Lumbsch
Jones (1980) as *Parmelia glabratula* (Lamy) Nyl. subsp. *fuliginosa*, no further data

Melanelixia glabratula (Lamy) Sandler & Arup
Jones (1980) as *Parmelia glabratula*; SM [Ce]

Melanelixia subaurifera (Nyl.) O. Blanco, A. Crespo, Divakar, Essl., D. Hawksw. & Lumbsch
Jones (1980) as *Parmelia subaurifera* Nyl.; SM [Ce]

Melanohalea exasperata (De Not.) O. Blanco, A. Crespo, Divakar, Essl., D. Hawksw. & Lumbsch
Coutinho (1916) as *Parmelia exasperata* De Not.; PB323425 (Monchique); SM [Ca,Cs,Fi,Ol]

Melanohalea olivacea (L.) O. Blanco, A. Crespo, Divakar, Essl., D. Hawksw. & Lumbsch
Estácio da Veiga (1869) as *Parmelia olivacea* (L.) Ach., no further data

Micarea curvata Coppins
PB35804 (Alcaria do Cume); IE [s]

Micarea lignaria (Ach.) Hedl. var. ***lignaria***
van den Boom & Giralt (1996); SM [s]

Micarea aff. ***prasina*** Fr.
van den Boom & Giralt (1996); PB35988 (Fonte Benémola); PB45120 (Casa Queimeda); CE,SM [Al,Ce,t]

Micarea subviridescens (Nyl.) Hedl.
PB32314 (Barragem da Bravura); PB36012 (Alportel); CE,CW [t]

Micarea ternaria (Nyl.) Vězda
PB45122 (Casa Queimeda); SM [s]

Milospium graphideorum (Nyl.) D. Hawksw.
PB32334 (Bensafrim); PB32490 (Ferragudo); CW [Ce,Qs]

Minutoexcipula tuckerae V. Atienza & D. Hawksw.
PB35833 (Tavira); PB36099 (Conceição); PB45044 (Atalaia); PB45299 (Mexilhoeira Grande); CE,CW [Ce,Fi,Ol,Pr] on *Pertusaria*

Miriquidica deusta (Stenh.) Hertel & Rambold
PB41577 (Javali); IE [so]

Moelleropsis nebulosa (Hoffm.) Gyeln.
PB35791 (Alcaria do Cume); PB41631 (Bastos); PB45124 (Casa Queimeda); IE,IW,SM [t]

Muellerella articola (Linds.) Sacc. & D. Sacc.
PB41812 (Guenos); IW [Fi] on *Tephromela atra*

Muellerella lichenicola (Sommerf.) D. Hawksw.
van den Boom & Etayo (2000); PB32500 (Ferragudo); PB41528 (Paderne); PB45017 (Alvor); PB45296 (Odeceixe); AW,CW,IE [Ce,Fi,Jn] on *Caloplaca* sp., *Pertusaria flavida*, *Physcia clementei*

Muellerella pygmaea (Körb.) D. Hawksw.
Arnold (1868) as *Tichothecium pygmaeum* Körb.; SM [s] on crust.

Nephroma laevigatum Ach.
Coutinho (1916) as *Nephroma lusitanicum* Schaer.; Jones (1980); van den Boom & Giralt (1996); Burgaz & Martínez (2003); PB41562 (Rocha dos Soidos); PB45085,45105 (Monchique); IE,IW,SM [Ce,Cs,Ol,Qs,s]

Nephroma resupinatum (L.) Ach.
Estácio da Veiga (1869) as *Nephroma resupinata* Ach.; SM [t,s]

Nesolechia oxyspora (Tul.) A. Massal.
PB36010 (Monchique); [Ol] on *Punctelia*

Nephroma tangeriense (Maheu & A. Gillet) Zahlbr.
van den Boom & Giralt (1996); Burgaz & Martínez (2003); PB45118 (Odeceixe); IW,SM [t](f)

Normandina pulchella (Borrer) Nyl.
Arnold (1868) as *Lenormandia jungermanniae* Nyl.; Jones (1980); PB35950 (Fonte Benémola); IE,SM [Ce,Ju,Ol]

Ochrolechia balcanica Verseghy
van den Boom & Giralt (1996); IW,SM [Al,Ce,Ol]

Ochrolechia pallescens (L.) A. Massal.
van den Boom & Giralt (1996); CW,SM [Fa,Fi]

Ochrolechia parella (L.) A. Massal.
Arnold (1868); Coutinho (1916); Jones (1985); van den Boom & Giralt (1996); PB35933 (Fonte Salgada); PB45320 (Odeceixe); AW,IE,IW,SM [Ca,Jn,Ol,Qi,s,sa]

Ochrolechia subviridis (Høeg) Erichsen
Tavares (1947) as *Pertusaria subviridis* Høeg; Jones (1985); PB32412,45051 (Monchique); PB35815 (Portela); PB41752 (Roca da Pena); AW,IE,IW,SM [Ar,Ca,Ce,Fi,Ol,Qi,Qs,bfb] (f)

Ochrolechia tartarea (L.) A. Massal.
Jones (1985); PB41543 (Marreiros); PB45088 (Monchique); AW,IE,IW,SM [Ca,Ce,Cr,Cu,Fi,My,Ol,Pl,Pr,Qi,Qs]

Ochrolechia turneri (Sm.) Hasselrot
Jones (1985); van den Boom & Giralt (1996); Boqueras *et al.* (1999); IE,IW,SM [Ce,Ol,Pr,Qa,Qi,]

Opegrapha areniseda Nyl.
PB45274 (Odeceixe); AW [Ju]

Opegrapha celtidicola (Jatta) Jatta
Torrente & Egea (1989); PB32498 (Ponta do Altar); PB35998 (Fonte Benémola); PB36089 (Leziria); PB41882 (Alte); CE,CW,IE [Ce,Ol]

Opegrapha cesareensis Nyl.
PB32381 (Ponte de Aspa); PB45184 (Aljezur); PB45342 (Odeceixa); AW [c,s]

Opegrapha durieui Mont.
Torrente & Egea (1989); AW,CW [c]

Opegrapha niveoatra (Borrer) J. R. Laundon
PB35834 (Pedras d'el Rei); PB45147 (Aljezur); PB45237 (Mexilhoeira Grande); AW,CW,IE [Ce,Ol,Qro]

* ***Opegrapha physciaria*** (Nyl.) D. Hawksw. & Coppins
PB41467 (Estoi); PB41842 (Salir); CE,IE [Ce] on *Xanthoria parietina*

Opegrapha rupestris Pers.
Arnold (1868) as *O. saxicola* Ach. var. *decandollei* Stizenb.; IW [c]

Opegrapha saxatilis DC.
van den Boom & Giralt (1996); AW,CW [c]

Opegrapha varia Pers.
Arnold (1868); Torrente & Egea 1989; van den Boom & Giralt (1996); PB45271 (Odeceixe); AW,CW,IE,IW [Ce,Jn,Pt,Q,Qi,Qs,c]

Opegrapha variiformis Anzi
Torrente & Egea (1989); van den Boom & Giralt (1996); as *Opegrapha variaeformis*; PB32291 (Aljezur); AW,CW [c]. A specimen PB14717 published in van den Boom & Giralt (1996) as *Opegrapha subelevata* Nyl., belongs here.

Opegrapha vermicellifera (Kunze) J. R. Laundon
Torrente & Egea (1989); [Qs], no further data

Opegrapha vulgata Ach.
Torrente & Egea (1989); van den Boom & Giralt (1996); PB32347 (Vila do Bispo); AW [Eu,Qs,ush]

Opegrapha xerica Torrente & Egea
PB45319 (Odeceixe); AW [Ju]

Pachyphiale carneola (Ach.) Arnold
Álvarez (2004); PB32423 (Monchique); PB41724 (Pé de Coelho); PB45065 (Monchique); IE,SM [Ce,Ol]

Pannaria conoplea (Ach.) Bory
Jones (1980); Carballal *et al.* (2010); SM [Ol]

Pannaria rubiginosa (Ach.) Bory
Arnold (1868); Jones (1980); Carballal *et al.* (2010); SM [Ju]

Pannaria tavaresii P. M. Jørg.
Jones (1980); Carballal *et al.* (2010); SM, no further data

Parabagliettoa cyanea (A. Massal.) Gueidan & Cl. Roux
Sampaio (1970) as *V. limitata* Krempelh.; CW [c]

Paralecanographa grumulosa (Dufour) Ertz & Tehler
PB45373 (Castelejo); AW [s]

****Paranectria oropensis*** (Ces.) D. Hawksw. & Piroz.
PB32539 (Monchique); PB35952 (Fonte Benémola); PB41670 (São Marcos da Serra); IE,SM [Ce,Ol,sw] on *Leprocaulon*, *Rinodina isidioides*, *Solenopsora vulturiensis*

Parmelia omphalodes (L.) Ach.
Coutinho (1916); SM [s]

Parmelia saxatilis (L.) Ach.
Arnold (1868) as *Imbricaria saxatilis* (L.) Körb.; Coutinho (1916); Jones (1980); PB32456 (Monchique); PB41535 (Marreiros); IE,SM [Ol,Qs]

Parmelia sulcata Taylor
Jones (1980); SM [Cs,Qs]

Parmeliella parvula P. M. Jørg.
Jones (1980) as *Parmeliella jamesii* Ahlner & P. M. Jørg.; IW,SM, no further data

Parmeliella testacea P. M. Jørg.
López de Silanes *et al.* (2010), no further data.

Parmelina carporrhizans Taylor
Coutinho (1916); Jones (1980); van den Boom & Giralt (1996); PB41844 (Salir); all as *Parmelina quercina* (Willd.) Hale; CE,IE,SM [Ca,Cl,Cs, Fi]

Parmelina tiliacea (Hoffm.) Hale
Estácio da Veiga (1869), as *Parmelia tiliacea* (Hoffm.) Ach.; Jones (1980); van den Boom & Giralt (1996); van den Boom (2010); PB32336 (Barão de São João); PB36036 (Cachopo); IE,SM [Qi,Qro,s]

Parmotrema austrosinense (Zahlbr.) Hale
Jones (1980); van den Boom & Giralt (1996); PB32487 (Ferragudo); PB35982 (Fonte Benémola); PB41497 (Loulé); CE,CW,IE,IW [Ce,Fi,Ol,Qi]

Parmotrema crinitum (Ach.) M. Choisy
Jones (1980); SM, no further data

#*Parmotrema grayanum* (Hue) Hale
PB45159 (Aljezur); AW [s]

Parmotrema hypoleucinum (J. Steiner) Hale
Jones (1980) as *Parmotrema hypotropa* Nyl.; PB35972 (Fonte Benémola); PB45231 (Arão); CW,IE,IW [Fi,Ol]

Parmotrema perforatum (Jacq.) A. Massal.
Coutinho (1916) as *Parmelia perforata* (Wolf.) Ach.; SM [ut]

Parmotrema perlatum (Huds.) M. Choisy
Estácio da Veiga (1869), as *Parmelia perlata* (L.) Ach.; Coutinho (1916) as *Parmelia perlata*; Jones (1980); van den Boom & Giralt (1996) as *Parmotrema chinense* (Osbeck) Hale & Ahti; PB45093 (Monchique); CW,SM [Ca,Cl,Cs,Fi,Ju,Ol,Pn)

Parmotrema pseudoreticulatum (Tav.) Hale
PB36035 (Cachopo); PB41590 (Alportel); PB41758 (Alte); PB45114 (Monchique); IE,SM [Ce,Fi,Ol]

Parmotrema reticulatum (Taylor) M. Choisy
Jones (1980) as *Parmelia reticulata* Taylor; PB32450 (Monchique); PB35966 (Fonte Benémola); PB41741 (Rocha da Pena); PB45251 (Mexilhoeira Grande); CE,CW,IE,IW,SM [Ce,Fi,Ju,Ol,Pr](f)

Parmotrema robustum (Degel.) Hale
Jones (1980); MB49906 (Monchique); SM [Ol]

Parmotrema stuppeum (Taylor) Hale
PB45062 (Monchique); SM [Ol]

Peccania arabica (Müll. Arg.) Henssen
PB32580 (Bensafrim); CW [c]

Peccania fontqueriana P. Moreno & Egea
PB14610 (São Vicente); PB35873 (Vale de Gralhas); AW,CE [t]

Peltigera canina (L.) Willd.
Estácio da Veiga (1869); Coutinho (1916); SM [s]

Peltigera collina (Ach.) Schrad.
Jones (1980); PB45083 (Monchique); SM [Ol]

Peltigera membranacea (Ach.) Nyl.
Martínez Moreno (1999); Burgaz & Martínez (2003); SM [Ca]

Peltigera praetextata (Flörke ex Somerf.) Zopf
Martínez Moreno (1999); Burgaz & Martínez (2003); SM [s]

Peltula euploca (Ach.) Poelt
PB32290 (Aljezur); PB36070 (Bentos); AW,IE [s,sh]

Peltula obscurans (Nyl.) Gyeln.
PB35775 (Cascata Moinhos de Rocha); CE [s]

Peltula omphaliza (Eckfeldt) Wetmore
PB35771 (Cascata Moinhos de Rocha); CE [s]

#*Peltula psammophila* (Nyl.) Egea
MB49973 (Monchique); SM [t]

Pertusaria albescens (Huds.) M. Choisy & Werner
Jones (1985); PB35960 (Salir); PB36040 (Cachopo); PB45072,45113 (Monchique); IE,IW,SM [Ar,Ca,Ce,Fi,Ol,Pr,Qa,Qi,Qro,Qs,s](f)

Pertusaria amara (Ach.) Nyl.
Coutinho (1916); Jones (1985); van den Boom & Giralt (1996); PB41579 (Javali); AW,CE,CW,IE,IW,SM [Ar,Ca,Ce,Cr,Cs,Cu,Fi,Mo,Ol,Pn,Pr,Qi,Qs, Sy,ut]

Pertusaria amarescens Nyl.
Coutinho (1916); SM [s]

Pertusaria aspergilla (Ach.) J. R. Laundon
van den Boom & Giralt (1996); PB35783 (Alcaria do Cume); PB35911 (Cacela Velha); PB45367 (Picota); IE,IW,SM [s]

Pertusaria caesioalba (Flot.) Nyl.
Jones (1985); AW,IE,SM [Ai,Ca,Ce,Cr,Cu,Fi,Ol,Pr,Qi,Qs]

Pertusaria chiodectonoides Bagl.
Arnold (1868); SM [s]

Pertusaria coccodes (Ach.) Nyl.
Jones (1985); van den Boom & Giralt (1996); Boqueras & Llimona (2003); PB35901 (Cacela Velha); PB41691 (São Marcos da Serra); PB45079 (Monchique); AW,CE,IE,IW,SM [Ai,Ar,Ce,Cr,Cs,Cu,Fi,Ma,Ol,Pr,Qi,Qs]

Pertusaria ficorum Zahlbr.
Jones (1985); CE,CW,IE,IW,SM [Al,Ce,Cs,Cu,Cy,Fi,Ju,Ma,Ol,Pt,Py,Qi,Qs]

Pertusaria flavida (DC.) J. R. Laundon
Coutinho (1916) as *Pertusaria lutescens* (Hoffm.) Lamy; Jones (1985); Boqueras & Llimona (2003); PB41581 (Javali); AW,CE,IE,SM [Ar,Ca,Ce,Cs,Cu,Ol,Pn,Pr,Qa,Qi,Qs,ut]

Pertusaria hemisphaerica (Flörke) Erichsen
Tavares (1946); Jones (1985); van den Boom & Giralt (1996); PB41558 (Aguas Frias do Meio); PB45077 (Monchique); AW,IE,SM [Ar,Ce,Cu,Fi,Ju,Mo,Ol,Pn,Qi,Qs]

Pertusaria heterochroa (Müll. Arg.) Erichsen
Boqueras & Llimona (2003); PB41887 (Alte); CW,IE [Ce,Fi,Pr]

Pertusaria hymenea (Ach.) Schaer.
Arnold (1868) as *Pertusaria fallax* (Ach.) Howitt.; Coutinho (1916) as *Pertusaria wulfenii* DC.; Jones (1985); Boqueras & Llimona (2003); PB32605 (Luz); PB41490 (Cerro); PB45107 (Monchique); AW,CE,CW,IE,IW,SM [Ai,Al,Ca,Ce,Fi,Ju,Ma,No,Ol,Pl,Pn,Pr,Py,Qi,Qs]

Pertusaria isidioidea Schaer.
Coutinho (1916); SM [Ca]

Pertusaria lactescens Mudd
van den Boom & Giralt (1996); SM [s]

Pertusaria leioplaca DC.
Jones (1985); PB41705 (São Marcos da Serra); CW,IE,IW,SM [Al,Ca,Ce,Fi,Fr,Ju,Mo,Pr,Qi,Qs,Sy]

Pertusaria leptospora Nitschke
Sampaio (1970); SM [Ca,Qs]

Pertusaria leucostoma (Bernh.) A. Massal.
Jones (1985); IE,IW,SM [Ju,Mo,Ol,Pr,Sy]

Pertusaria multipuncta (Turner) Nyl.
Coutinho (1916); Jones (1985); PB45092,45109 (Monchique); IW,SM [Ca,Cr,Ol,Qs]

Pertusaria ophthalmiza (Nyl.) Nyl.
PB32454, MB49960 (Monchique); PB35899 (Cacela Velha); PB41806 (Guenos); IW,SM [Fi,Qs]

Pertusaria pertusa (Weigel) Tuck.
Coutinho (1916) as *Pertusaria communis* DC.; Jones (1985); Boqueras & Llimona (2003); PB35979 (Fonte Benémola); AW,CE,CW,IE,IW,SM [Ai,Ar,Ca,Ce,Cu,Fi,Fr,Ju,Ol,Pn,Po,Pr,Qa,Qi,Qs]

Pertusaria pluripuncta Nyl.
Boqueras & Llimona (2003); PB32364 (Ponte de Aspa); PB45333 (Odeceixe); AW [s]

Pertusaria pseudocorallina (Lilj.) Arnold
van den Boom & Giralt (1996); PB45140 (Monchique); SM [s]

Pertusaria pustulata (Ach.) Duby
Coutinho (1916) as *Pertusaria melaleuca* (Sm.) Duby; Jones (1985); PB45264 (Zambujeira de Baixo); AW,CE,CW,IE,IW,SM [Ca,Ce,Fi,Ju,Ma,No,Ol,Pr,Py,Qi,Qs]

Pertusaria velata (Turner) Nyl.
Coutinho (1916); Jones (1985); van den Boom & Giralt (1996); PB45408 (Monchique); AW,IE,IW,SM [Ai,Ca,Ce,Cl,Ju,Ol,Qi,Qs]

Petractis luetkemuelleri (Zahlbr.) Vězda
van den Boom & Giralt (1996); CW [c]

****Phacopsis oxyspora*** (Tul.) Triebel & Rambold
PB32538 (Monchique); SM [Ol] on *Punctelia borreri*

****Phacothecium varium*** (Tul.) Trevis.
Hafellner (2009); PB45016 (Alvor); CE,CW,IE [Ce,Pu] on *Xanthoria parietina*

Phaeographis dendritica (Ach.) Müll. Arg.
Carballal & López de Silanes (2004), no further data

Phaeographis lyellii (Sm.) Zahlbr.
Carballal & López de Silanes (2004), no further data

Phaeophyscia hirsuta (Mereschk.) Essl.
Jones (1980) as *Physcia hirsuta* Mereschk.; PB32562 (Carrapateira); PB35839 (Pedras d'el Rei); PB36104 (Conceição); AW,CE [Ce,Fr,s,Pr,Qi]

Phaeophyscia hispidula (Ach.) Essl.
Jones (1980) as *Physcia hispidula* (Ach.) Frey; PB41735 (Rocha da Pena); PB45201 (Rocha dos Soidos); CE,IE,SM [Ol,c]

Phaeophyscia orbicularis (Neck.) Moberg
Jones (1980); van den Boom (2010); PB35758 (Cascata Moinhos de Rocha); PB41845 (Salir); CE,IE,SM [Ac,Fi,Fr,Ol]

****Phaeosporobolus alpines*** R. Sant., Alstrup & D. Hawksw.
PB35902 (Lagoa); PB35923 (Carapoteira); CE [Ol,s] on *Pertusaria*

****Phaeosporobolus usneae*** D. Hawksw. & Hafellner
PB41795 (Lagoa); IW [Fi] on *Canoparmelia aptata*

Phlyctis agelaea (Ach.) Flot.
Coutinho (1916); Jones (1985); PB32586 (Bensafrim); PB35754 (Cascata Moinhos de Rocha); PB41527 (Paderne); PB41557 (Aguas Frias do Meio); AW,CE,CW,IE,IW,SM [Ai,Al,Ca,Ce,Cl,Ce,Fi,Fr,Ma,No,Ol,Pl,Pr,Qi,Qs]

Phlyctis argena (Spreng.) Flot.
Jones (1985); van den Boom & Giralt (1996); PB45360 (Picota); IE,SM [Ca,Ce,Fi,Ju,Ol,Pn,Pr,Qi]

****Phoma caperatae*** Vouaux
PB45224 (Mexilhoeira Grande); CW [Ol] on *Flavoparmelia soredians*

Phoma ficuzzae Brackel
PB45213 (Rocha dos Soidos); IE [Ol] on *Ramalina*

Phoma physciicola Keissl.
PB35822 (Portela); IE [Qi], on *Physconia distorta*

Physcia adscendens (Fr.) H. Olivier
Tavares (1944 a); Jones (1980); CE,CW [Fi]

Physcia aipolia (Ehrh. ex Humb.) Fürnr.
Coutinho (1916); Jones (1980); PB36078 (Leziria); PB41854 (Salir); CE, IE,SM [Ce,Fi]

Physcia clementei (Sm.) Maas Geest.
Coutinho (1916) as *Physcia astroidea* (Clem.) Nyl.; Jones (1980); van den Boom & Giralt (1996); PB32320 (Bensafrim); PB35827 (Pedras d'el Rei); PB41479 (Estoi); CE,CW,IE,IW [Ce,Fi,Ol]

Physcia dubia (Hoffm.) Lettau
MB49925 (Monchique); SM [s]

Physcia leptalea (Ach.) DC.
Tavares (1944 a); Jones (1980), van den Boom & Giralt (1996) as *Physcia semipinnata* (J. F. Gmel.) Moberg; PB32458 (Monchique); PB35859 (Vale de Gralhas); PB45206 (Rocha dos Soidos); CW,IE,SM [Ce,Fi,Ol,Pr,Qs]

Physcia scopularis (Lamb. & Vězda) Poelt & Nimis
van den Boom & Giralt (1996); SM [s]

Physcia tenella (Scop.) DC.
Coutinho (1916); Jones (1980); PB32303 Aljezur); PB41733 (Pocha da Pena); PB41881 (Alte); AW,CE,IE,SM [Ce,Ol,c,ush]

Physcia tribacia (Ach.) Nyl.
van den Boom & Giralt (1996); SM [s]

Physcia tribacioides Nyl.
Jones (1980); PB32327 (Barão de São João); PB41559 (Agua Frias do Meio); PB45149 (Aljezur); PB45346 (Monchique); AW,CW,IE,SM [Fi,Ol, Pr,Qs]

Physciella chloantha (Ach.) Essl.
Jones (1980) as *Physcia luganensis* Mereschk; PB32326 (Barão de São João); PB35840 (Pedras d'el Rei); PB36076 (Leziria); PB41472 (Estoi); PB45222 (Arão); CE,CW,IE,SM [Cl,Ce,Fi,Ju,Ol](f)

Physconia distorta (With.) J. R. Laundon
Jones (1980) as *P. pulverulacea* Moberg; SM [Ac,Ce,Cs,Qi,Qs]

Physconia enteroxantha (Nyl.) Poelt
Jones (1980); PB32545 (Monchique); CE,CW,SM [Ce,Ol]

Physconia grisea (Lam.) Poelt
Jones (1980), no further data

Physconia perisidiosa (Erichsen) Moberg
PB32426 (Monchique); PB35931 (Conceiçao); PB36030 (Cachopo); PB41826 (Gilvrazino); CE,IE,SM [Ol,Pr]

Physconia venusta (Ach.) Poelt
Coutinho (1916) as *Physcia venusta* (Ach.) Nyl.; SM [Ca]

Piccolia ochrophora (Nyl.) Hafellner
PB41605 (Alportel); PB45115 (Monchique); IE,SM [Fr,Ol]
Placidiopsis cinerascens (Nyl.) Breuss
PB35869 (Pechão); PB41862 (Paderne); CE [t]
Placidiopsis custnani (A. Massal.) Körb.
PB35875 (Pechão); CE [t]
Placidium lacinulatum (Ach.) Breuss
PB41891,41898 (Alte); IE [t]
Placidium pilosellum (Breuss) Breuss
Prieto *et al*. (2010), no further data
Placidium semaforonense (Breuss) Breuss
Breuss (1990); van den Boom & Giralt (1996); Prieto *et al*. (2010); PB35865,35876 (Pechão); PB41863 (Paderne); AW,CE,IE [t]
Placidium squamulosum (Ach.) Breuss
Breuss (1990); CW [t]
Placopyrenium fuscellum (Turner) Gueidan & Cl. Roux
Sampaio (1970); as *Verrucaria fuscella* Ach.; IW [c]
Placynthiella dasaea (Stirt.) Tønsberg
PB45049 (Monchique); SM [Ol]
Placynthium lismorense (Nyl. ex Cromb.) Vain.
Burgaz (2010); Burgaz (2011); CE [c]
Placynthium nigrum (Huds.) Gray
Coutinho (1916); Jones (1980); van den Boom & Giralt (1996); Burgaz (2010); Burgaz (2011); AW,CE,CW,IE [Qi,c,t]
Placynthium subradiatum (Nyl.) Arnold
Burgaz (2010); Burgaz (2011); AW [c]
Polyblastia cf. ***albida*** Arnold
PB35877 (São Miguel); CE [c]
Polychidium muscicola (Sw.) Gray
Burgaz (2011), no further data
****Polycoccum alboatrum*** (Vouaux) Etayo
PB45401 (Amado beach); AW[s] on *Diplotomma*
****Polycoccum* sp.** Etayo & van den Boom, ined.
PB32298 (Ponte de Aspa); AW [s]
****Polycoccum slaptoniense*** D. Hawksw.
PB41644 (São Marcos da Serra); IW [ut] on *Xanthoria parietina*
****Polycoccum squamarioides*** (Mudd) Arnold
PB32452 (Monchique); SM [Ol] on *Phlyctis agelaea*
Polysporina simplex (Davies) Vězda
Arnold (1868) as *Sarcogyne privigna* (Ach.) A. Massal. var. *simplex*; PB41632 (Bastos); IW [s,sw]
Porina aenea (Wallr.) Zahlbr.
PB32482,32485 (Ferragudo); PB45227 (Arão); CW [Ce,Ol,ush]
Porina chlorotica **(**Ach) Müll. Arg.
PB14764 (Zavial); CW [c]

Porina coralloidea P. James
PB45108 (Monchique); SM [Ol]

Porina curnowii A. L. Sm.
PB32311 (Aljezur); PB45183 (Aljezur); PB45379 (Castelejo); PB45389 (Amado beach); AW [s]

Porina oleriana (A. Massal.) Lettau
PB32510 (Amorosa); CW [c]

Porpidia cinereoatra (Ach.) Hertel & Knoph
van den Boom & Giralt (1996); PB45141 (Monchique); PB45368 (Picota); SM [s]

Porpidia crustulata (Ach.) Hertel & Knoph
Arnold (1868) as *Lecidea crustulata* (Ach.) Spreng.; PB35808 (Alcaria do Cume); PB45314 (Odeceixe); AW,IE,IW [s,sa,sts]

Porpidia macrocarpa (DC.) Hertel & A. J. Schwab
Arnold (1868) as *Lecidea contigua* (Hoffm.) Fr.; Coutinho (1916); as *Lecidea platycarpa* Ach.; van den Boom & Giralt (1996); PB41633 (Bastos); IW,SM [s,sw]

Protopannaria pezizoides (Weber) P. M. Jørg. & S. Ekman
Arnold (1868) as *Pannaria brunnea* (Sw.) A. Massal.; IE,IW [st,t]

Pseudocyphellaria aurata (Ach.) Vain.
Estácio da Veiga (1869) as *Sticta aurata* Ach.; Burgaz & Martínez (2003), no further data

Psora decipiens (Hedw.) Hoffm.
Arnold (1868); van den Boom & Giralt (1996); PB35866 (Pechão); PB41585 (Loulé); PB41777 (Carvoeiro); AW,CE,CW,IE,IW [t]

Psora gresinonis B. de Lesd.
van den Boom & Giralt (1996); IW [t]

Psorula rufonigra (Tuck.) G.Schneider
PB32350 (Monchique); SM [s] on *Spilonema revertens*

Punctelia borreri (Sm.) Krog
Jones (1980); van den Boom & Giralt (1996); PB32424,32543 (Monchique); SM [Ac,Ce,Ol]

Punctelia subrudecta (Nyl.) Krog
Jones (1980); PB35967 (Fonte Benémola); PB41827 (Gilvrazino); CE,IE, SM [Fi,Po,Pr]

* ***Pyrenidium actinellum*** Nyl.
van den Boom & Etayo (2000); PB32481 (Ferragudo); CW,SM [Fi,t] on *Diploschistes*, *Phaeophyscia orbicularis*

Pyrenopsis conferta (Born.) Nyl.
PB32549 (Pego do Frade); AW [s]

Pyrenopsis subareolata Nyl.
PB32462 (Monchique); SM [s]

Pyrenopsis triptococca Nyl.
PB32282,32289 (Aljezur); PB32460 (Monchique); PB32558 (Carrapateira); PB36073 (Martim Longo); AW,IE,SM [s]

Pyrenula chlorospila Arnold
van den Boom & Giralt (1996); CW [Ce]
Pyrenula nitidella (Flörke) Müll. Arg.
Coutinho (1916); CE [No]
Pyrrhospora quernea (Dicks.) Körb.
Arnold (1868); van den Boom & Giralt (1996); PB32589 (Bensafrim); PB35981 (Fonte Benémola); PB41693 (São Marcos da Serra); PB45106 (Monchique); PB45327 (Odeceixe); AW,CW,IE,IW [Ca,Ce,Fi,Jn,Ol,Pr; Qs,Qu,bfb]
Pyxine subcinerea Stirt.
Breuss (1989); PB32561 (Carrapateira); PB45166 (Aljezur); AW,CW [Ce,s]
Ramalina calicaris (L.) Fr.
Estácio da Veiga (1869); Jones (1980); van den Boom & Giralt (1996); PB41544 (Marreiros); MB49993 (Carvoeiro); CW,IE,SM [Cs,Ce,Ju,Ol,Pr]
Ramalina canariensis J. Steiner
Jones (1980); van den Boom & Giralt (1996); CW [Ol,Pr]
Ramalina capitata (Ach.) Nyl.
van den Boom & Giralt (1996); SM [s]
Ramalina cuspidata (Ach.) Nyl.
PB32309 (Aljezur); PB32362 (Ponte de Aspa); AW [s]
Ramalina farinacea (L.) Ach.
Arnold (1868); Jones (1980); PB32455 (Monchique); PB45268 (Zambujeira de Baixo); AW,IE,SM [Al,Ca,Ce,Ol,Qco] (f) DNA
Ramalina fastigiata (Pers.) Ach.
Jones (1980); van den Boom & Giralt (1996); PB41600 (Alportel); PB45388 (Castelejo); AW,CW,IE [Cl,Fi,Ju,Ol,Pr,ut]
Ramalina fraxinea (L.) Ach.
Estácio da Veiga (1869); Coutinho (1916); CE,CW,SM [Ol,ut]
Ramalina hierrensis Krog & Østh.
PB45294 (Odeceixe); PB45386 (Vila do Bispo); AW [Jn] DNA
#*Ramalina huei* Harm.
PB45312 (Odeceixe); AW [Ju] DNA
Ramalina implectens Nyl.
Sampaio (1970) as *Ramalina arabum* (Ach.) Meyen & Flot.; PB32285 (Aljezur); AW,IE,IW [Ce,Ol,Qu,ut]
Ramalina lacera (With.) J. R. Laundon
Jones (1980) as *Ramalina duriaei* (De Not.) Bagl.; van den Boom & Giralt (1996); PB32341 (Bensafrim); PB45013 (Alvor); PB45395 (Amado beach); AW,CW [Fi,Pr,Pu,c,s,ush]
Ramalina lusitanica H. Magn.
Jones (1980); CW [Ol,Po]
Ramalina panizzei De Not.
Coutinho (1916); SM [Ca]
Ramalina pollinaria (Westr.) Ach.
Arnold (1868); Coutinho (1916); PB32302 (Aljezur); AW,IW [Ju,Q,s]

Ramalina pusilla Le Prévost
Jones (1980); van den Boom & Giralt (1996); CW [Ol,Pr]
Ramalina rosacea Hoschst.
PB45276,45277 (Odeceixe); AW [s] DNA
Ramalina siliquosa (Huds.) A. L. Sm.
PB32361 (Ponte de Aspa); PB45295 (Odeceixe); AW [s] DNA
Ramonia subsphaeroides (C. Tav.) Vězda
van den Boom & Giralt (1996); MB49900, 49957 (Monchique); SM [Ce]
****Reconditella physconiarum*** Hafellner & Matzer
PB41471 (Estoi); CE [Ol] on *Phaeophyscia*
Rhizocarpon badioatrum (Flörke ex Spreng.) Th. Fr.
van den Boom & Giralt (1996); SM [s]
Rhizocarpon geographicum (L.) DC.
Estácio da Veiga (1869) as *Lecidea geographica* (L.) Rebent.; Arnold (1868); Coutinho (1916); PB45370 (Picota); IW,SM [s]
Rhizocarpon oportense (Vain.) Räsänen
MB49914 (Monchique); SM [s]
Rhizocarpon reductum Th. Fr.
PB35801 (Alcaria do Cume); IE [s]
Rhizocarpon richardii (Nyl.) Zahlbr.
PB35937 (Fonte Salgada); PB41585 (Javali); MB49912 (Monchique); IE,SM [s,so]
Rhizocarpon subconcentricum (Fr.) Körb.
Arnold (1868); IW [s]
Rhizocarpon viridiatrum (Wulfen) Körb.
van den Boom & Giralt (1996); PB35780 (Alcaria do Cume); IE,SM [s]
Rimularia gyrizans (Nyl.) Hertel & Rambold
MB49922 (Monchique); SM [s]
Rinodina algarvensis Giralt, Barbero & van den Boom
Giralt *et al*. (1996 a); van den Boom & Giralt (1996); Giralt (2001); Giralt (2010); PB36017, 36034 (Cachopo); IE,IW [s]
Rinodina anomala (Zahlbr.) H. Mayrhofer & Giralt
Giralt (2010); PB32356 (Vila do Bispo); PB45387 (Castelejo); PB32356 (Vila do Bispo); AW [Eu,Jn]
Rinodina aspersa (Borrer) J. R. Laundon
Giralt (2001); Giralt (2010); PB35792 (Alcaria do Cume); PB41582 (Javali); IE [s,so]
Rinodina atrocinerea (Hook.) Körb.
Coutinho (1916); van den Boom & Giralt (1996); Giralt (2001); Giralt (2010); PB45130 (Monchique); CE,IW,SM [s]
Rinodina beccariana Bagl. var. ***beccariana***
PB32307 (Aljezur); PB36065 (Vaqueiros); IE [s]
Rinodina beccariana Bagl. var. ***lavicola*** (J. Steiner) Matzer & H. Mayrhofer
PB32375 (Ponte de Aspa); AW [s]
Rinodina canariensis Matzer, H. Mayrhofer & P. Clerc
PB45189 (Aljezur); AW [s]

Rinodina capensis Hampe in Massal.
van den Boom & Giralt (1996); Giralt (2001); Giralt (2010); PB32419 (Monchique); PB41639 (Bastos); IE,IW,SM [Al,Fi,Ju,Ol,Qs]

Rinodina colobinoides (Nyl.) Zahlbr.
Giralt *et al*. (1996 b); van den Boom & Giralt (1996); Giralt (2001); Giralt (2010); PB32599 (Espiche); PB41517 (Paderne); PB41742 (Rocha da Pena); CE,CW,IE,SM [Ce,Ol,Pr]

Rinodina confragosa (Ach.) Körb.
Arnold (1868) as *Rinodina caesiella* (Flot.) Körb.; Coutinho (1916); IW,SM [s]

Rinodina dalmatica Zahlbr.
Giralt *et al*. (1995); van den Boom & Giralt (1996); Giralt (2001); Giralt (2010); PB32406 (Monchique); PB41683 (São Marcos da Serra); PB41751 (Rocha da Pena); IE,SM [Ce,Ol,Qs]

Rinodina freyii H. Magn.
PB41652 (São Marcos da Serra); IW [ut]

Rinodina gennarii Bagl.
PB41615,41630 (Bastos); IW [sw]

Rinodina intermedia Bagl.
Arnold (1868) as *Rinodina lusitanica* Arn.; van den Boom & Giralt (1996); Mayrhofer *et al*. (2001); Giralt (2001); Giralt (2010); PB45151 (Aljezur); AW,IW [Ol,t]

Rinodina isidioides (Borrer) H. Olivier
Jones (1980); van den Boom & Giralt (1996); Giralt (2010); PB32546 (Monchique); PB35951 (Fonte Benémola); PB41749 (Rocha da Pena); IE,SM [Ce,Ol]

Rinodina nimisii Giralt & Mayrhofer
Giralt *et al*. (1996 b); van den Boom & Giralt (1996); Giralt (2001); Giralt (2010); PB32517 (Amorosa); PB45285 (Odeceixe); AW,CW,IE,SW [Jn,Ol]

Rinodina oxydata (A. Massal.) A. Massal.
Sampaio (1970) as *Lecidea discolor* Hepp; Giralt (2001); Giralt (2010); SM [s]

Rinodina plana H. Magn.
van den Boom & Giralt (1996); Giralt (2001); Giralt (2010); CE,SM [Ju,Ol]

Rinodina pruinella Bagl.
Giralt (2001); Giralt (2010); Paz-Bermúdez & Giralt (2010); PB32492 (Ferragudo); PB45299 (Odeceixe); AW,CW [Ce,Fi,Jn]

Rinodina roboris (Duf. ex Nyl.) Arnold
Coutinho (1916); Giralt (2010); PB32355 (Vila do Bispo); PB36087 (Leziria); PB41478 (Loulé); AW,CE [Eu,No,Ol,Pt]

Rinodina santorinensis J. Steiner
PB32300 (Aljezur); PB45400 (Amado beach); AW [s]

Rinodina santorinensis var. ***olivieri*** (Samp.) H. Mayrhofer & Sattler
Giralt (2001); Giralt (2010); CW? [s]

Rinodina sophodes (Ach.) A. Massal.
van den Boom & Giralt (1996); Giralt (2001); Giralt (2010); PB41722 (Pé de Coelho); IE,IW [Ce,Qs]

Rinodina trachytica (A. Massal.) Bagl. & Car.
Giralt (2001); Giralt (2010); Paz-Bermúdez & Giralt (2010); PB45155 (Aljezur); AW,CE [s]

Roccella maderensis (J. Steiner) Follmann
PB453090 (Odeceixe); AW [s]

Roccella arnoldii Vain.
Coutinho (1916); Egea (1989); CW [c]

Roccella phycopsis Ach.
PB32367 (Ponte de Aspa); PB45306 (Odeceixe); AW [s]

Roccella tinctoria DC.
PB45179 (Odeceixe); AW [s]

Roccella tuberculata Vain.
PB32308 (Aljezur); PB45175 (Aljezur); AW [s]

Roccellographa circumscripta (Taylor) Ertz & Tehler
PB32370 (Ponte de Aspa); PB45344 (Odeceixe); AW [s]

****Roselliniopsis groedensis*** (Zopf) Matzer & Hafellner
van den Boom & Etayo (2000); PB41750 (Rocha da Pena); IE SM [Ce,Qs] on *Pertusaria hemisphaerica*, on *Pertusaria* sp.

#*Sagiolechia atlantica* Henssen
PB32382 (Vila do Bispo); AW [s]

Sarcogyne regularis Körb.
Arnold (1868) as *Sarcogyne pruinosa* Körb.; PB41620 (Bastos); PB45019 (Alvor); CW,IW [c,sw]

Schismatomma albocinctum (Nyl.) Zahlbr.
van den Boom & Giralt (1996); PB32548,32553 (Carrapateira); PB45394 (Amado beach); CW,AW [Ce,Ju,Ol,s,ush]

Schismatomma decolorans (Turner & Borrer ex Sm.) Clauzade & Vězda
Torrente & Egea (1989); van den Boom & Giralt (1996); PB32499 (Ferragudo); PB35996 (Fonte Benémola); PB41570 (Rocha dos Soidos); PB45043 (Atalaia); CE,CW,IE,IW,SM [Ce,Fi,Ol,Pr,Pt,Qs](f)

Schismatomma dirinellum (Nyl.) Zahlbr.
Sampaio (1970) as *Schismatomma diplotommoides* (Bagl.) Samp.; PB32319 (Bensafrim); PB36101 (Conceição); PB41828 (Gilvrazino); PB45230 (Arão); AW,CE,CW [Ce,Eu,Fi,Ol,Pr,Pt]

Schismatomma picconianum (Bagl.) J. Steiner
Torrente & Egea (1989); van den Boom & Giralt (1996); CW [Ce,Ol,Pr]

Schismatomma umbrinum (Coppins & P. James) P. M. Jørg. & Tønsberg
PB35939 (Fonte Salgada); IE [s]

Scoliciosporum gallurae Vězda & Poelt
van den Boom & Giralt (1996); PB41662 (São Marcos da Serra); IE,SM [Mi,ush]

Scoliciosporum umbrinum (Ach.) Arnold
van den Boom & Giralt (1996); PB36019 (Cachopo); IE,SM [Ci,s]

* ***Skyttea lecanorae*** Diederich & Etayo
PB41516 (Paderne); CE [ut] on *Lecanora horiza*

* ***Skyttea mayrhoferi*** Diederich & Etayo
PB32332 (Barão de São João); PB32354 (Vila do Bispo); PB32606 (Espiche); AW,CW [Eu,Ol,Qs] on *Pertusaria*

Solenopsora candicans (Dicks.) J. Steiner
Arnold (1868) as *Ricasolia candicans* (Dicks.) A. Massal.; PB32504 (Amorosa); PB41770 (Rocha da Pena); CW,IE,IW [c]

Solenopsora cesatii (A. Massal.) Zahlbr.
van den Boom & Giralt (1996); AW [c]

Solenopsora holophaea (Mont.) Samp.
PB32550 (Carrepateira); PB36021 (Cachopo); PB45301 (Odeceixe); PB45170 (Aljezur); AW,IE [s,t]

Solenopsora olivacea (Fr.) Kilias
PB32502 (Amorosa); PB45025 (Laos); PB45204 (Rocha dos Soidos); AW,CW,IE [c]

Solenopsora vulturiensis A. Massal.
PB32305 (Aljezur); PB36024 (Cachopo); PB41587 (Javali); PB45132 (Monchique); PB45318 (Odeceixe); AW,IE,IW,SM [s,so,sw,t](f)

* ***Sphaerellothecium*** aff. ***giraltiae*** van den Boom
PB35965 (Fonte Benéola); PB45067 (Monchique); IE,SM [Fi,Ol] on *Parmotrema reticulatum*

Sphaerophorus globosus (Huds.) Vain.
Muniz & Hladun (2011), no further data

* ***Sphinctrina leucopoda*** Nyl.
van den Boom & Giralt (1996); van den Boom & Etayo (2000); Muniz & Hladun (2011); PB36042 (Cachopo); IE,SM [Ce,Cl,Pu,Qro] on *Pertusaria*.

* ***Sphinctrina tubiformis*** A. Massal.
PB32333 (Barão de São João); PB41492 (Loulé); CE,CW,IE [Ce,Ol,Pt] on *Pertusaria*

* ***Sphinctrina turbinata*** (Pers.: Fr.) De Not.
Muniz & Hladun (2011); PB35844 (Pedras d'el Rei); MB49965 (Monchique); CE,CW,SM [Ce,Fi,Ol] on *Pertusaria*

Spilonema paradoxum Bornet
MB49972 (Monchique); SM [s]

Spilonema revertens Nyl.
PB32279 (Pego do Frade); AW [s]

Squamarina cartilaginea (With.) P. James
Arnold (1868); *Psoroma crassum* (Huds.) Gray; Coutinho (1916) as *Lecanora crassa* (Huds.) Ach.; van den Boom & Giralt (1996) as *Squamarina cartilaginea* var. *pseudocrassa*; PB35870 (Pechão); PB41860 (Paderne); CE,IE,IW,SM [t]

Squamarina concrescens (Müll. Arg.) Poelt
PB41879 (Paderne); IE [t]

Squamarina gypsacea (Sm.) Poelt
van den Boom & Giralt (1996); IE [c]

Squamarina lentigera (Weber) Poelt
Coutinho (1916) as *Lecanora lentigera* (Web.) Ach.; van den Boom & Giralt (1996); PB32478 (Ferragudo); PB36007 (Fonte Benémola); PB41901 (Alte); PB41500 (Loulé); AW,CE,CW,IE,IW,SM [t]

Staurolemma omphalarioides (Anzi) P. M. Jørg. & Henssen
Tavares (1954) as *Lempholemma omphalarioides* (Anzi) Zahlbr.; Jones (1980) as *Physma omphalarioides* (Anzi) Arnold; van den Boom & Giralt (1996); PB32464 (Picota); PB35817 (Portela); PB41756 (Rocha de Pena); PB45347 (Alferce); IE,SM [Ac,Ol,Pr,Qi,Qs,bfb,s]

Staurothele rugulosa (A. Massal.) Arnold
Arnold (1868) as *Polyblastia rugulosa* A. Massal.; IW [sa]

Stereocaulon dactylophyllum Flörke
Estácio da Veiga (1869) as *Stereocaulon coralloides* Fr.

Stereocaulon vesuvianum Pers.
Coutinho (1916) as *S. denudatum* Flörke; PB32465 (Picota); SM [s]

Sticta fuliginosa (Hoffm.) Ach.
Estácio da Veiga (1869); Coutinho (1916); SM [ut]

Sticta limbata (Sm.) Ach.
Jones (1980); Burgaz & Martínez (2003); SM, no further data.

Sticta sylvatica (Huds.) Ach.
Burgaz & Martínez (2003), no further data

* ***Stigmidium psorae*** (Anzi) Vězda
PB41900 (Alte); IE [t] on *Psora decipiens*

* ***Stigmidium schaereri*** (A. Massal.) Trevis.
PB41790 (Alcalar); IW [Ol] on *Lecidella*

* ***Stigmidium tabacinae*** (Arnold) Triebel
PB41861 (Paderne); IE [t] on *Toninia tristis*

Strigula brevis Bricaud & Cl. Roux
PB41677 (São Marcos da Serra); IE [Qi]

Strigula taylorii (Carroll ex Nyl.) R. C. Harris
van den Boom & Giralt (1996); Roux & Sérusiaux (2004); IE,SM [Ju,Qi]

Strigula ziziphi (A. Massal.) Cl. Roux & Sérus.
Roux & Sérusiaux (2004); PB41591 (Alportel); IE [Ce]

Syncesia myrticola (Fée) Tehler
PB32346 (Vila do Bispo); PB45326 (Odeceixe); PB45391 (Amado beach); AW [Eu,Jn,s]

* ***Syzygospora bachmannii*** Diederich & M. S. Christ.
PB35809 (Alcaria do Cume); IE [t] on *Cladonia rangiformis*

* ***Syzygospora physciacearum*** Diederich
PB41788 (Alcalar); PB41853 (Salir); IE,IW [Ol] on *Physcia*

* ***Taeniolella phaeophysciae*** D. Hawksw.
PB35845 (Pedras d'el Rei); PB36056 (Martim Longo); PB41473 (Estoi); CE,IE [Ce,Ol,Qro] on *Phaeophyscia orbicularis*

* ***Telogalla olivieri*** (Vouaux) Nik. Hoffm. & Hafellner
PB41847 (Salir); PB45015 (Alvor); CW,IE [Fi,Pu] on *Xanthoria parietina*

Teloschistes chrysophthalmus (L.) Th. Fr.
Jones (1980); van den Boom & Giralt (1996); PB32509 (Amorosa); PB35888 (São Miquel); PB45214 (Rocha dos Soidos); CE,CW,IE,SM [Ce,Ol,bfb,ush]

Teloschistes flavicans (Sw.) Müll. Arg.
Coutinho (1916); SM [Ca]

Tephromela atra (Huds.) Hafellner
Estácio da Veiga (1869), Arnold (1868), Coutino (1916) as *Lecanora atra* (Huds.) Ach.; van den Boom & Giralt (1996); PB36059 (Martim Longo); PB41523 (Paderne); CE,CW,IE,IW,SM [Fa,Fi,Pr,s,sa,ut]

Thelenella melanospora Etayo & H. Mayrhofer
PB41653 (São Marcos da Serra); IW [ut]

Thelomma siliceum (Fée) Tibell
PB45399 (Amado beach); AW [s]

Thelopsis isiaca Stizenb.
PB45269 (Odeceixe); AW [Jn]

Thelopsis rubella Nyl.
van den Boom & Giralt (1996); MB49939 (Monchique); SM [Ol]

Tomasiella gelatinosa (Chevall.) Zahlbr.
van den Boom & Giralt (1996); CW [Fi]

Toninia albilabra (Dufour) H. Olivier
Sampaio (1970); van den Boom & Giralt (1996); AW [t]

Toninia aromatica (Sm). A. Massal.
van den Boom & Giralt (1996); PB32565 (Carrapateira); PB35896 (Cacela Velha); PB41616 (Bastos); PB45152,45172 (Aljezur); AW,CE,CW,IE, IW [Ce,Ol,c,cw,s,st,sw,t]

Toninia athallina (Hepp) Timdal
Sampaio (1970); CW [c]

* ***Toninia episema*** (Nyl.) Timdal
Sampaio (1970) as *Catillaria episema* Maheu & Gillet; PB32503,32513 (Amorosa); CW [c] on *Aspicilia calcarea*

* ***Toninia plumbina*** (Anzi) Hafellner & Timdal
PB41833 (Salir); IE [Ol] on *Degelia*

Toninia sedifolia (Scop.) Timdal
Arnold (1868) as *Thalloidima versiculare* (Hoffm.) A. Massal.; Coutinho (1916) as *Toninina coeruleonigricans* auct.; van den Boom & Giralt (1996); PB35864 (Pechão); PB41780 (Carvoeiro); CE,CW,IE,IW [t]

Toninia squalida (Ach.) A. Massal.
Tavares (1952) as *Toninia multiseptata* Anzi; PB32280 (Aljezur); PB35768 (Cascata Moinhos de Rocha); PB45161 (Aljezur); AW,CE,SM [s,t]

* ***Toninia subfuscae*** (Arnold) Timdal
Breuss (1989) as *Bacidia subfuscae* (Arn.) Clauz. & Roux; PB32495 (Ferragudo); PB45248 (Mexilhoeira Grande); CW [Ce,Fi,OL] on *Lecanora*.

Toninia tristis (Th. Fr.) Th. Fr. **s. l.**
Arnold (1868) as *Thalloidima tabacinum* A. Massal.; PB35862 (Pechão); IW [t]

Toninia tristis (Th. Fr.) Th. Fr. ssp. ***pseudotabacina*** Timdal
PB35781 (Alcaria do Cume); PB36008 (Fonte Benémola); CE,IE [s,t]
Topelia heterospora (Zahlbr.) P. M. Jørg. & Vězda
PB32585 (Bensafrim); PB45202 (Rocha dos Soidos); CW,IE [c]
Trapelia coarctata (SM.) M. Choisy
Arnold (1868) as *Zeora coarctata* (Turner ex Sm.) Flot.; PB41621 (Bastos); PB45239 (Arão); CW,IW [sa,sw,t]
Trapelia glebulosa (Sm.) J. R. Laundon
PB41586 (Javali); PB45240 (Arão); CW,IE [so]
Trapeliopsis flexuosa (Fr.) Coppins & P. James
PB41533 (Marreiros); IE [Qs]
Trapeliopsis granulosa (Hoffm.) Lumbsch
van den Boom & Giralt (1996); SM [Pn]
Trapeliopsis wallrothii (Flörke ex Spreng.) Hertel & Gotth. Schneid.
PB32463 (Picota); PB35925 (Cacela Velha); PB45131 (Monchique); IE,SM [s,t]
*** *Tremella parmeliarum*** Diederich
Diederich (1996); PB41744,41760 (Rocha da Pena); PB41850 (Salir); IE [Fi,Pr] on *Parmotrema reticulatum*
Tuckermannopsis chlorophylla (Willd.) Hale
Jones (1980); as *Cetraria chlorophylla* (Willd.) Vainio, no further data
Usnea barbata (L.) F. H. Wigg.
Estácio da Veiga (1869), no further data
Usnea ceratina Ach.
Coutinho (1916); Jones (1980); PB45048 (Monchique); SM [Ca,Ol,Qs]
Usnea cornuta Körb.
MB49949 (Monchique); SM [Ol]
Usnea esperantiana P. Clerc
PB45097 (Monchique); SM [Ol]
Usnea flammea Stirt.
Jones (1980); PB45074,45090, MB49950 (Monchique); SM [Cs,Ol,Qs]
Usnea flavocardia Räsänen
MB49890,49927 (Monchique); SM [Ol]
Usnea florida (L.) F. H. Wigg.
Arnold (1868) as *U. barbata* (L.) F. H. Wigg. var. *florida*; SM [Ca]
Usnea fulvoreagens (Räsänen) Räsänen
Jones (1980); SM [Cl,CS,Qs]
Usnea hirta (L.) Hoffm.
Coutinho (1916); SM [Ca]
Usnea mutabilis Stirt.
Jones (1980), no further data
Usnea rubicunda Stirt.
Jones (1980); Fos & Clerc (2000); PB45060 (Monchique); SM [Ol,Pn,Qs,s,ut]
Usnea schadenbergiana Göpp. & Stein.
Jones (1980) as *Usnea hesperina* Motyka; IE,SM, no further data

Usnea subfloridana Stirt.
Jones (1980), no further data
Usnea subpectinata Stirt.
Jones (1980) as *Usnea inflata* (Duby) Motyka; SM [Cs,Ol,Po,Qs]
Usnea subscabrosa Nyl. ex Motyka
Jones (1980); Fos & Clerc (2000); PB45057,45119 (Monchique); SM [Ol, Qs,s,t]
Vahliella saubinetii (Mont.) P. M. Jørg.
Jones (1980); as *Parmeliella saubinetii* (Mont.) Zahlbr.; Paz-Bermúdez *et al.* (2010); PB45198 (Rocha dos Soidos); IE [st]
Verrucaria calciseda DC.
Arnold (1868); PB45032 (Lagos); CW,IW [c]
Verrucaria cyanea A. Massal.
Sampaio (1970) as *Verrucaria limitata* Krempelh.; CW [c]
Verrucaria elaeina A. Massal.
Arnold (1868); SM [s]
Verrucaria cf. ***furfuracea*** (B. de Lesdain) Breuss
PB45033 (Lagos); CW [c]
Verrucaria fuscella (Turner) Winch
Sampaio (1970); IW [c]
Verrucaria fusconigrescens Nyl.
PB45211 (Rocha dos Soidos); PB45035 (Lagos); CW,IE [c]
Verrucaria hochstetteri Fr.
Arnold(1868) as *Amphoridium dolomiticum* A. Massal.; IW [c]
Verrucaria lecideoides Trevisan
PB41763 (Rocha da Pena); IE [c]
Verrucaria cf. ***macrostoma*** Dufour ex DC.
Coutinho (1916); PB41622 (Bastos); CW,IW [sw]
Verrucaria marmorea (Scop.) Arnold
PB41769 (Alte); IE (c)
Verrucaria muralis Ach.
PB41617 (Bastos); IW [sw]
Verrucaria murina Leight.
Sampaio (1970); IE [c]
Verrucaria cf. ***nigrescens*** Pers.
Arnold (1868); PB32569 (Carrapareira); AW,IW [s,st]
Verrucaria orbicularis (Garov.) Cout.
Coutinho (1916); CW[c]
Verrucaria phloeophila Breuss
Breuss (1998); SM [Qi]
Verrucaria viridula (Schrad.) Ach.
van den Boom & Giralt (1996); PB45020; CW,IE [c]
*** *Vouauxiella lichenicola*** (Linds.) Petr. & Syd.
PB32403 (Monchique); PB36083 (Leziria); PB41791 (Alcalar); PB41489 (Loulé); CE,IW,SM [Ce,Fi,Ol,Pt,ush] on *Lecanora* sp.

#*Waynea algarvensis* van den Boom
See above
Waynea cretica Llop
van den Boom (2010); PB35932 (Conceiçao); PB36109 (Fonte Benémola); PB45232 (Mexilhoeira Grande); CE,CW,IE [Ce,Ol,Qi]
Waynea giraltiae van den Boom
van den Boom (2010); PB35818 (Portela); PB36000 (Fonte Benémola); CW,IE [Ol,Qi,bfb]
Waynea stoechadiana (Abassi & Cl. Roux) Cl. Roux & P. Clerc
van den Boom (2010); PB36096 (Leziria); PB45255; (Mexilhoeira Grande); CE,CW,IE [Ce,Ol,Qi] (f)
Xanthoparmelia conspersa (Ehrh. ex Ach.) Hale
Coutinho (1916) as *Parmelia conspersa* (Ehrh.) Ach.; Jones (1980) as *Parmelia conspersa*; van den Boom & Giralt (1996); PB45144 (Mexilhoeira Grande); PB45353 (Alferce); AW,IE,SM [Qs,s]
Xanthoparmelia loxodes (Nyl.) O. Blanco *et al.* **s. l.**
van den Boom & Giralt (1996) as *Neofuscelia loxodes* Nyl.; PB36016 (Cachopo); IE,IW,SM [s] (f)
Xanthoparmelia mougeotii (Schaer. ex D. Dietr.) Hale
PB41583 (Javali); IE [so]
Xanthoparmelia pulla (Ach.) O. Blanco *et al.* **s. l.**
Coutinho (1916) as *Parmelia prolixa* Ach. Nyl.; Jones (1980) as *Parmelia pulla* Ach.; PB35784 (Alcaria do Cume); PB35913 (Cacela Velha); PB45357 (Alferce); IE,SM [s]
Xanthoparmelia stenophylla (Ach.) Ahti & D. Hawksw.
PB36061 (Vaqueiros); IE [s]
Xanthoparmelia sublaevis (Cout.) Hale
Coutinho (1916) as *Parmelia sublaevis* Cout.; SM [s]
Xanthoparmelia verrucigera Nyl.
Coutinho (1916) as *Parmelia lusitanica* Nyl.; SM [s]
Xanthoria parietina (L.) Th. Fr.
Estácio da Veiga (1869) as *Physcia parietina* Nyl.; Coutinho (1916); Jones (1980); AW,CE,CW [Ce,Fa,c]
****Xanthoriicola physciae*** (Kalchbr.) D. Hawksw.
PB41613 (Alportel); PB45040 (Atalaia); CW,IE [Fr,Mi,tl] on *Xanthoria parietina*

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