

**PERIDIOTHELIA OLEAE (KÖRBER) D. HAWKSW. AND OPEGRAPHA
PHYSICIARIA (NYL.) D. HAWKSW. & COPPINS, TWO POORLY KNOWN
WEST MEDITERRANEAN FUNGAL TAXA**

by
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Resumen

ATIENZA, V. (1992). *Peridiothelia oleae* (Körber) D. Hawksw. y *Opegrapha physciaria* (Nyl.) D. Hawksw. & Coppins, dos táxones fúngicos poco conocidos del Mediterráneo occidental. *Anales Jard. Bot. Madrid* 50(2): 159-162 (en inglés).

En los muestreos realizados recientemente en las provincias de Castellón y Tarragona (España) se han recolectado dos táxones fúngicos hasta el momento poco conocidos para Europa: *Peridiothelia oleae* (Körber) D. Hawksw. no está liquenizada, pero su talo crece entre otras especies liquenizadas, y *Opegrapha physciaria* (Nyl.) D. Hawksw. & Coppins aparece como parasimbionte sobre el talo de *Xanthoria parietina* (L.) Th. Fr. Se tratan aspectos corológicos, taxonómicos y ecológicos interesantes de ambos táxones y se lectotipifica *Opegrapha physciaria*.

Palabras clave: *Peridiothelia*, *Opegrapha*, flora, corología, taxonomía, tipificación, Castellón, Tarragona, Península Ibérica.

Abstract

ATIENZA, V. (1992). *Peridiothelia oleae* (Körber) D. Hawksw. and *Opegrapha physciaria* (Nyl.) D. Hawksw. & Coppins, two poorly known West Mediterranean fungal taxa. *Anales Jard. Bot. Madrid* 50(2): 159-162.

On the basis of collections made recently in the provinces of Castellón and Tarragona (Spain), two poorly known fungal taxa are reported: *Peridiothelia oleae* (Körber) D. Hawksw. is not lichenized but its thallus grows through other lichenized species and *Opegrapha physciaria* (Nyl.) D. Hawksw. & Coppins occurs parasymbiotically on the thallus of *Xanthoria parietina* (L.) Th. Fr. Both species are poorly known in Europe. Chorological, ecological, and taxonomical aspects are briefly commented upon. *Opegrapha physciaria* is lectotypified.

Key words: *Peridiothelia*, *Opegrapha*, flora, chorology, taxonomy, typification, Castellón, Tarragona, Iberian Peninsula.

***Peridiothelia oleae* (Körber) D. Hawksw.,**
Bull. Brit. Mus. (Nat. Hist.), Bot. 14(2):
127 (1985)
≡ *Microthelia oleae* Körber, Verh. K. K.
Zool.-Bot. Ges. Wien 17: 706 (1867);
type not seen

SPAIN: Tarragona, La Sénia, El Retaule, 31TBF6914,
1000 m, on *Quercus ilex* bark, 21-IX-1986, V. Atienza,
VAB-Lich. 719.

Remarks: It is a small and poorly known species reported only from two localities in Europe. The Spanish specimen was collected in a humid location, on *Quercus ilex* bark in an oak forest [*Asplenio onopteridis-Quercetum ilicis* (Br.-Bl. 1936) Rivas Martínez 1975] near a beech forest. Until now, the original material from Yugoslavia: Dalmacia, Megline, on *Olea europea* bark was

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the only known (HAWKSWORTH, 1985), but there seems to be other collection reports on *Quercus ilex* in Yugoslavia (Hawksworth, *in litt*).

Together with *P. oleae*, other accepted species in the genus are *P. grandiuscula* (Anzi) D. Hawksw. and *P. fuligincta* (Norman) D. Hawksw. The first has bigger ascospores [(22-)25-33(-35) × (9-)10-12(-13) μm] than *P. oleae* (HAWKSWORTH, 1985) and the second smaller ascospores [(16-)17-21(-24) × 7.5-9(-11) μm] than *P. oleae*; furthermore, in *P. fuligincta* the ascospores have the lower cell somewhat narrower and a thinner gelatinous sheath (to 1.5 μm thick) and the thallus grows on *Tilia* bark (HAWKSWORTH, 1985). The Spanish specimen of *P. oleae* has ellipsoid ascospores, with rounded apices, 1-septate, slightly constricted at the septum, the lower cell somewhat shorter hyaline at first, becoming golden brown, slightly verrucose with a distinct gelatinous sheath (to 2.5 μm thick in KOH), 21-25-28 × 8-10 μm, and grows on *Quercus ilex* bark.

***Opegrapha physciaria* (Nyl.) D. Hawksw. & Coppins, Lichenologist 24(4): 367 (1992)**

≡ *Lecidea physciaria* Nyl., Suppl. Lich. Paris: 8 (1897). Type: France, Paris, Ormes de Carel, 1827, Alph. de Brebisson n.º 814 (H-Nyl 11023, lectotype selected here)

≡ *Leciographa physciaria* (Nyl.) Oliv, Bull. Acad. Int. Géogr. Bot. 16: 48 (1906)

= *Phacopsis varia* Tul., Ann. Sci. Nat., Bot., Sér. 3, 17: 125 (1852). Type not seen ≡ *Celidium varium* (Tul.) Massal., Miscell. Lichen.: 15 (1856) ≡ *Arthonia varia* (Tul.) Jatta, Syll. Lichen.: 471 (1900)

SPAIN: Castellón, Cincorres, 30TYK3696, 950 m, on *Juniperus oxycedrus* bark, 31-VIII-1984, Barreno, Aienza & Rico, VAB-Lich. 761. Vizcaya, c. 3 km SW of Valmaseda, c. 25 km WSW of Bilbao, 1959, Santesson n.º 13033j, UPS.

FRANCE: Paris, Ormes de Carel, 1827. Alph de Brebisson n.º 814, H-NYL 11023; Ad Marennes, 1875, J. Richard, H-NYL 11025; Fontainebleau, 1855, H-NYL 11024.

Lichenicolous fungus, parasymbiotic on the thallus of *Xanthoria parietina*, producing black, epruinose ascomata. Ascomata single, erumpent, rounded or becoming ± elliptical when viewed from above, 0.7 mm diam., close together within the thallus of the host at first, finally opening the thallus surface and appearing in dense clusters or scattered and sessile. Excipulum well developed, black, continuous below, 40-45 μm high. Hymenium 65 μm thick, hyaline, I+ blue (after KOH pretreatment). Subhymenium, pale brown, 45 μm high. Hamathecium dense, paraphysoids branched, thickened at their apices, forming a brown pseudoepthecium. Mature asci bitunicate, clavate, 45-50 × 18 μm, 8-spored, *Opegrapha*-type (sensu RENOBALLES & BARRENO, 1989) but without amyloid apical ring and with a little ocular chamber; dehiscence fissitunicate. Ascospores ellipsoid, (12-)15-16 × 6-7(-8) μm, 3-celled, with a thin (1 μm) perispore, hyaline at first, finally pigmented, becoming brown by the deposition of minute pigment granules on the perispore. Pycnidia immersed, in close proximity to ascomata, black. Pycnoconidia cylindrical, straight, simple, 6-7.5 × 1 μm.

Remarks: *Opegrapha physciaria* occurs as parasymbiotic on the thallus of *Xanthoria parietina*. In the new Spanish locality, the host was growing epiphytically in *Xanthorion parietinae* communities, on old trunks of *Juniperus oxycedrus* in an open forest of *Junipero thuriferae-Quercetum rotundifoliae* (Rivas Goday 1959) Rivas Martínez 1987, located at 950 m.

The *Opegrapha* on *Xanthoria* was described by Tulasne as *Phacopsis varia* in 1852, but we cannot use that name in *Opegrapha* because of the earlier *O. varia* Pers. (Art. 55.1). Furthermore, *Leciographa* is a name synonymous, with *Opegrapha* because of which *Lecidea physciaria* Nyl. was changed to *Opegrapha physciaria* (Nyl.) D. Hawksw. & Coppins. This species has been confused with several other species, like *O. parasitica* (Massal.) Vezda. The report of this species growing on *X. parietina* in Great Britain (COPPINS, 1987) most certainly refers to this species (Coppins,

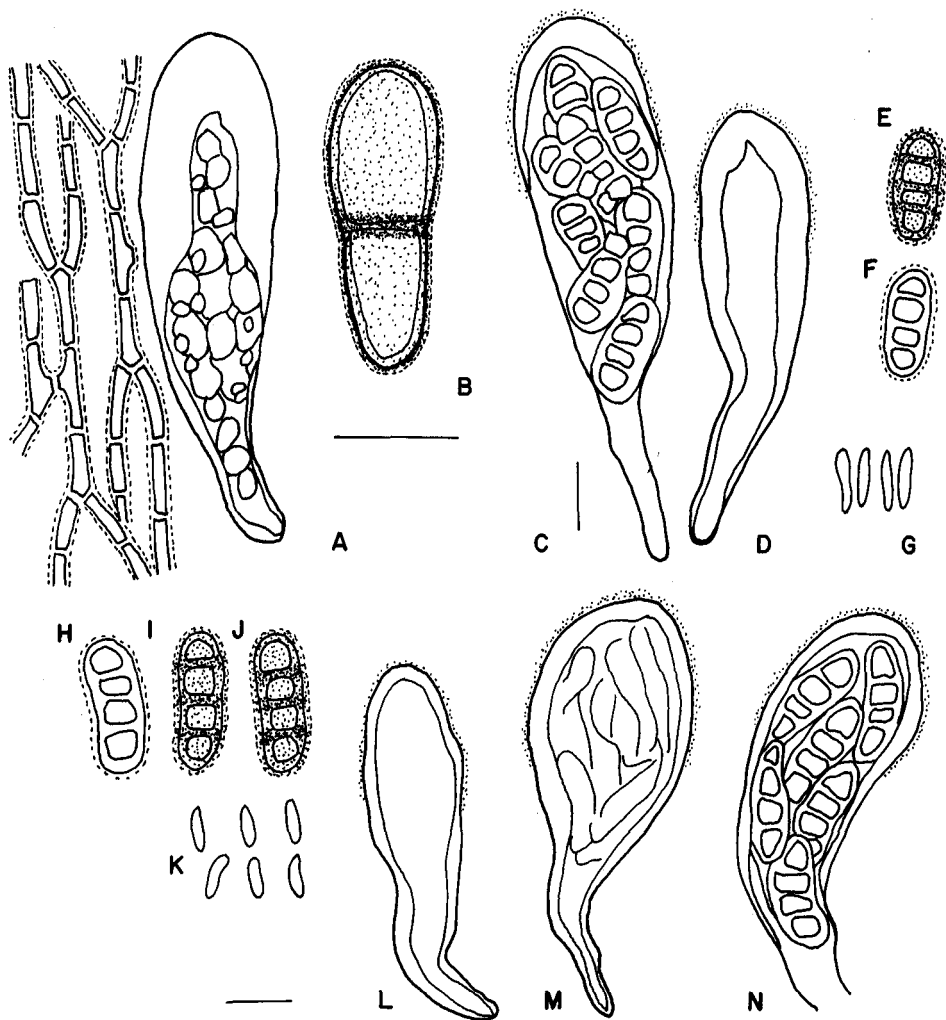


Fig. 1.—A-B, *Peridiothelia oleae* (VAB-Lich. 719); C-G, *Opegrapha physciaria* (Spanish specimen VAB-Lich. 761); H-N, *Opegrapha physciaria* (lectotype H-Nyl. 11023). A, paraphysoids and young ascus; B, mature ascospores (surface view); C, D, L, M and N, asci in Lugol's iodine after pretreatment in KOH (amyloid parts stippled); C and N, mature ascus; D and L-M, young asci; F and H, young ascospores with hyaline perispore; E and I-J, mature ascospores with pigmented perispore (surface view); G and K, pycnoconidia. (Scale = 10 μ m.)

in litt.). Some important differences are: the spores of *O. parasitica* are 6 μ m longer and, most importantly, the asci are “*Opegrapha* type” with a dark amyloid apical ring, while this structure is absent in the ascus of *O. physciaria*.

Since this species has been confused with other *Opegrapha* species it is difficult to give general distribution patterns. I was familiar with the reports of *O. physciaria* (as

Leciographa physciaria) from Vizcaya in North Spain, on twigs of a solitary *Populus* (SANTESSON, 1960), in Great Britain (Coppins, *in litt.*), France (type), Sweden (Källsten, *in litt.*) and Germany (ARNOLD, 1866, as *Celidium varium*).

Nomenclatural remarks: Three collections were mentioned by NYLANDER (1897) in the protologue of *Lecidea physciaria*. All

of them were examined and are in good condition. I selected the first mentioned by Nylander (*op. cit.*) as "in hb. Breb. n.º 814" as a lectotype (H-Nyl. 11023) because it bears detailed handwriting notes evidently used in the elaboration of the original description like "gh. fulvo-rubens, sp. fusca 0.012-17 × 0.006, date and locality of collection, Ormes de Carel 1827", some of them included in the species protologue.

Another collection (H-Nyl. 11025), contains only the specimen name, date, locality of collection, collector's name and one number (Marenes, Richard 1876, 646). Another (H-Nyl. 11024) bears only a few words: the specimen's name, Fontainebleau, 1855, and W. Nylander.

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