

(2236) Proposal to reject the name *Lichen conspurcatus* (Roccellaceae)**Anders Tehler,¹ Paul Diederich² & Damien Ertz³**¹ Naturhistoriska riksmuseet, Enheten för botanik, Box 50007, 104 05 Stockholm, Sweden² Musée national d'histoire naturelle, 25, rue Munster, 2160 Luxembourg³ Jardin botanique national de Belgique, Département Bryophytes et Thallophytes, Domaine de Bouchout, 1860 Meise, Belgium

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- (2236) *Lichen conspurcatus* Sm., Engl. Bot. 14: 964. 1 Oct 1801–1 Apr 1802, nom. utique rej. prop.
Lectotypus (hic designatus): [‘English Botany’ - lichen collection] 964 *Lichen conspurcatus* (BM barcode 001107763, Top packet).

Dirina massiliensis Durieu & Mont. (Expl. Sci. Algerie. Cryptog. 1: 247. 1847) has been found to be a junior synonym of a long forgotten and very rarely used name, *Lichen conspurcatus* Sm. *Dirina massiliensis* has been the name used for the past 30 years (Tehler in Opera Bot. 70: 30. 1983, type selection for *D. massiliensis*) for the species to which the types of the two names belong.

In connection with the just recently released revision of the genus *Dirina* (Tehler & al. in Lichenologist 45: 427–476. 2013) Brian Coppins brought to our attention that the forgotten name *Lichen conspurcatus* was an earlier name for the well-established *Dirina massiliensis*. Before Tehler (l.c.: 30. 1983), the name *Dirina repanda* Fr. (Syst. Orb. Veg.: 285. 1825) was incorrectly used for *D. massiliensis*, the best known of all saxicolous *Dirina* species, incorrect because it was actually based on a corticolous specimen in the same genus, *D. ceratoniae* (Ach) Fr. (*Lecanora ceratoniae* Ach., Lichenogr. Universalis: 361. 1810). When Fries (Lichenogr. Eur. Reform.: 194. 1831) combined Acharius's *Lecanora ceratoniae* as *Dirina ceratoniae*, he described in the same publication (Fries, l.c.: 177. 1831) the new saxicolous species *Parmelia repanda* (= *Dirina massiliensis*). More or less simultaneously and actually based on a letter from Fries, Duby (Bot. Gall.: 667. 1830) described *Lecanora repanda* Fr. ex Duby (= *Dirina massiliensis*). Consequently, the combination *Dirina repanda* could not be made, since it would become a later homonym of *D. repanda* Fr. (l.c. 1825). Therefore, Tehler (l.c.: 30. 1983) used the next available name for this taxon, which was *Dirina massiliensis* Durieu & Mont. (l.c.).

Lichen conspurcatus was described by Smith (l.c.) from the localities “the old Roman walls of Burgh castle in Suffolk, and Scole inn, Norfolk, and other places”. The five specimens comprising the original material, BM barcode 000006713, BM barcode 000975007, LINN-HS-SUPP-39-73, LINN-HS-SUPP-39-74 and LINN-HS-SUPP-39-61, all represent the species currently called *Dirina massiliensis*. The name *Lichen conspurcatus* has never been connected with or referred to *Dirina* but rather to *Variolaria* (a name rejected in favour of *Pertusaria*, nom. cons.), e.g., by Turner (Spec. Lich. Brit.: 69.

1836) and has been hidden as a synonym under *Pertusaria* ever since. Laundon (in Bot. J. Linn. Soc. 147: 491. 2005) was the first to note that *Lichen conspurcatus* was correctly identified as belonging to the genus *Dirina*, and part of the studied material on sheet BM001107763 was labelled “Top packet - lectotype” but no new combination was made, nor was the lectotypification published.

The typification of the name *Lichen conspurcatus* is complicated by the fact that some of the type material apparently also included a fungus parasitic on *Dirina massiliensis* and consequently it became necessary to decide whether the host or the parasite should be lectotypified with *L. conspurcatus*. Hawksworth examined the original material in 1974 and annotated part of it as “Fungus = *Sclerococcum sphaerale*”. Hawksworth (in Trans. Brit. Mycol. Soc. 65: 219–238. 1975) revised both *Sclerococcum sphaerale* and *Milospium graphideorum* and listed *Lichen conspurcatus* as a synonym of *Sclerococcum sphaerale*. However, *Sclerococcum sphaerale* is strictly host specific to species of *Pertusaria*, almost always on *P. corallina*, and does not grow on *Dirina*. According to Laundon (l.c.: 491), Hawksworth (l.c.) wrongly referred the parasite to *Sclerococcum sphaerale* (Ach.) Fr., although Laundon does not suggest what the parasite or lichenicolous fungus could be. After careful examination of photographs of the original material, all pictured in JSTORE (<http://plants.jstor.org>), we can confirm that *Sclerococcum sphaerale* is absent from all these specimens. Furthermore, there is no clear evidence of the presence of *Milospium graphideorum*, which is a common parasite of *Dirina massiliensis*, although the darker thallus surface in the LINN-HS-SUPP-39-61 specimen may suggest the presence of a very poorly developed *Milospium graphideorum*. The brown spots seen in several of the specimens comprising the original material do not look like *Milospium graphideorum*, but more like necrotic darkenings of unknown origin of the upper cortex of the host.

Lichen conspurcatus was described for a thallus with black spots. We interpret the material in BM and Smith's description (l.c.: 964) to be clearly intended for the lichenized fungus species referred to as *Dirina massiliensis* and the material is also that for which the lectotypification of *Lichen conspurcatus* is designated and we chose to adopt Laundon's unpublished lectotypification of the specimen BM001107763 since it is a typical *Dirina* without any lichenicolous fungus. We do not believe that Smith's description (l.c.: 964) was intended for any parasitic or lichenicolous species that might have been present on the lichen thallus, largely because lichenicolous fungi were poorly known at that time.

Nevertheless, Smith's (l.c.: 964) diagnosis and description is applicable to both the thallus of a lichenized fungus and to an alleged lichenicolous fungus. Half of the text of the diagnosis ('Spec. Char.') in Smith's description (l.c.: 964) refers to the so called 'shields', i.e., the black structures on the surface of the crust. In addition, five lines of the description below the diagnosis also refer to the 'shields', and one amongst two drawings illustrates these black structures.

We can never exclude the presence of lichenicolous fungi, even if they are poorly visible, and the name *Lichen conspurcatus* has been used as synonym of the lichenicolous *Sclerococcum sphaerale* (Hawksworth, l.c.: 223). Indeed, these facts open up for lectotypifying on a lichenicolous fungus instead of the lichen thallus. However, since the black spots ('shields') cannot easily be attributed to any convincing lichenicolous fungus known to be hosted by the genus *Dirina*, we suggest that the lectotypification of *Lichen conspurcatus* be designated for the lichen thallus. Furthermore, if we were to lectotypify the name on the parasite (if present then most possibly *Milospium graphideorum*), *Lichen conspurcatus* would take priority over that name and a proposal to conserve the name *Milospium graphideorum* would instead be highly desirable.

The taxon referred to as *Dirina massiliensis* has already undergone a painful name switch (Tehler, l.c.: 30. 1983) from the earlier long used name *Dirina repanda*. Strict application of the rules concerning nomenclatural priority (Art. 11) would result in yet another displacement of the now well-established name *Dirina massiliensis* by the totally unknown and very rarely used name *Lichen conspurcatus* (and the combination *Dirina conspurcata*). Outright rejection of the name *Lichen conspurcatus* (Art. 56) would avoid this disadvantageous change and preserve the usage of *Dirina massiliensis*. Ever since 1983 *Dirina massiliensis* has been used continuously and the name has in all respects become well established and used in all recent taxonomic and phylogenetic works (Tehler in *Lichenologist* 20: 398. 1988; Lohtander & al. in *Bryologist* 101: 409. 1998; Tehler & Irestedt in *Cladistics* 23: 439. 2007; Tehler & al., l.c. 2013), in checklists and floras (Santesson, *Lichens Sweden Norway*: 117. 1984 & *Lichens & Lichenicol. Fungi Sweden & Norway*:

79. 1993; Clauzade & Roux in *Bull. Soc. Bot. Centre-Ouest* 7: 357. 1985; Nimis & Poelt, *Stud. Geobot.* 7, Suppl. 1: 99. 1987; Wirth, *Flechten Baden-Württembergs, Verbreitungsatlas*: 187. 1987 & *Flechten Baden-Württembergs* 1: 381. 1995; Purvis & al., *Lichen Fl. Gr. Brit. Ireland*: 239. 1992; Nimis, *Lichens Italy*: 285. 1993; Egea & Torrente in *Biblioth. Lichenol.* 54: 181. 1994; Coppins, *Checkl. Lichens Gr. Brit. Ireland*: 20. 2002; Nimis & Martellos, *Monogr. Mus. Regionale Sci. Nat. St.-Pierre* 4: 33. 2003; Santesson & al., *Lichen-forming Lichenicol. Fungi Fennoscandia*: 117. 2003; Van Herk & Aptroot, *Veldgids Korstmossen*: 176. 2004; Dobson, *Lichens*, ed. 5: 174. 2005 & ed. 6: 174. 2011; Temina & al., in *Wasser & Eviatar, Lichen-forming, Lichenicol., & Allied Fungi Israel*: 149. 2005; Smith & al., *Lichens Gt. Brit. Ireland*: 383. 2009;), and on numerous websites too many to be mentioned here. In contrast to *Dirina massiliensis* the name *Lichen conspurcatus* has never been associated or used with the genus *Dirina* (or with the family *Roccellaceae* or any other family in the *Arthoniales*) since its description in 1802 (Smith, l.c.). We propose the rejection of *Lichen conspurcatus* under Art. 56 as the best and simplest option in this case, particularly given the fact that, apart from its synonymization under the lichenicolous fungus *Sclerococcum sphaerale* (Hawksworth, l.c.), the name has remained in oblivion ever since its publication until Laundon's publication (l.c.) 203 years later.

A change of names is likely to create future confusion and misapplication of the name by those not familiar with species in the genus. Acceptance of the proposal will favour nomenclatural stability, as enunciated in the *Code*, and avoid the creation of additional confusion to taxonomists.

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