

confirmed this. On the other hand, a third reference (Gleditsch, Meth. Fung.: 157. 1753) included in its diagnosis: “*Lycoperdon globosum, subterraneum, solidum et scabrum*” and in the subsequent discussion “[...] cortex albidus, eminentiis non nihil exasperatus [...] substantia interior [...] per maturitatem plus minus spongiosa, laxa, mollis, sicca et pulposa evadit”, suggesting that this name describes a *Rhizopogon*. Vittadini (l.c.: 38–39) proposed the name *T. aestivum* listing “*Tub. albidum?* Fries” as a synonym but he wrote in a commentary on the name (Vittadini, l.c.: 40): “Color externus albidus in Tuberibus muricatis mihi prorsus extraneus, suspectus. Hinc *albidi* nomen ambiguum.” We concur with Vittadini that *T. albidum* Fr. is a questionable species that does not agree with any known species of *Tuber* in which the warty peridium is black or deep brown (Bonito & al. in PLoS ONE 8(1): e52765. 2013, <https://doi.org/10.1371/journal.pone.0052765>). In attempting to typify *T. albidum*, Leonardini & al. (in Cryptog. Mycol. 42: 160. 2021) searched for the dried sample mentioned by Fries (l.c.: 291), but no specimen of *T. albidum* was found in the herbarium of Fries (UPS-FRIES) nor was a drawing of this taxon. Thus, we propose the rejection of the name *Tuber albidum* Fr. in application of Art. 56.1 of the *Shenzhen Code*.

(2871) *Tuber cibarium* Bull., Hist. Champ. France: 74. 1791, nom. sanct. (Fries, Syst. Mycol. 2: 290. 1823), nom. rej. prop. Typus: non designatus.

Bulliard (Hist. Champ. France.: 74. 1791) proposed the name *Tuber cibarium* for truffles having a warty black peridium. Within

T. cibarium he recognized four main varieties, the first of which was listed as “1. *Tub. cibarium nigrum*, vid. *Tuber nigrum*, tab. 356.” The name *T. cibarium* Bull. was applied to the black truffle in the early literature (Withering, Bot. Arr. Brit. Pl., ed. 2, 3(2): 458. 1792; Sibthorp, Fl. Oxon.: 398. 1794; Sowerby, Col. Fig. Engl. Fung.: t. 309. 1800; Turpin, Dict. Sci. Nat. Pl. Bot. [1] Vég. Acot.: t. 46. 1821). The name *T. cibarium*, which would otherwise be a superfluous and illegitimate name for *T. nigrum* Bull., was sanctioned by Fries (Syst. Mycol. 2: 290. 1823) in close accordance with the treatment by Bulliard (l.c.). Bulliard gave the specific character of the species as “La Truffe comestible est la seule espèce de ce genre dont la surface soit comme verruqueuse, ou relevée de petites éminances à peu près prismatiques.” He included under this name not only the numerous species of black truffles now known in Europe (*T. aestivum*, *T. brumale*, *T. macrosporum* Vittad., *T. melanosporum*, *T. mesentericum* Vittad., *T. bituminatum* Berk. & Broome, *T. malençonii* Donadini & al., and *T. suave* Pacioni & M. Leonardini) but also unidentifiable white or greyish truffles. Given the confusion concerning the name, we propose the rejection of the name *Tuber cibarium* Bull. in application of Art. 56.1 of the *Shenzhen Code*.

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(2872) Proposal to conserve the name *Huea* (Ascomycota: Teloschistales) with a conserved type

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(2872) *Huea* C.W. Dodge & G.E. Baker in Ann. Missouri Bot. Gard. 25: 617. 6 Mai 1938, nom. cons. prop. Typus: *H. cerussata* (Hue) C.W. Dodge & G.E. Baker (*Lecidea cerussata* Hue), typ. cons. prop.

The genus *Huea* was erected by Dodge & Baker (in Ann. Missouri Bot. Gard. 25: 617. 1938) for three Antarctic species in the

Teloschistaceae that were characterized by lacking anthraquinones and having black apothecia with a carbonaceous exciple and a bright blue epihymenium. They transferred two species originally described in the genus *Lecidea* by Hue to their new genus as *H. cerussata* (Hue) C.W. Dodge & G.E. Baker and *H. coralligera* (Hue) C.W. Dodge & G.E. Baker, but chose as the type their newly described species *H. flava* C.W. Dodge & G.E. Baker. Although numerous other

species, mostly from tropical Africa, were subsequently transferred to *Huea* by Dodge (in Beih. Nova Hedwigia 38: 83–89. 1971), these are in need of revision but will, after molecular studies, almost certainly be better accommodated in other genera of *Teloschistaceae* – probably in, or close to, *Pyrenodesmia* A. Massal. (see Frolov & al., J. Syst. Evol. 59: 454–474. 2020).

The type specimen of *Huea flava* (Siple & Corey 73-10), and hence of the generic name, is in the Farlow Herbarium of Harvard University (FH) and consists of a flat piece of rock with numerous small labels indicating individual species that are then referenced and named on the packet. The lichen identified as the type specimen of *H. flava* is a white, sterile crust on the edge of the underside of the rock, and this resulted in Castello & Nimis (in Biblioth. Lichenol. 57: 80. 1995) concluding that, because it lacked apothecia, the specimen was “impossible.” Consequently, it was not thought possible to base the typification of the generic name *Huea* on this specimen.

However, subsequent closer examination of the holotype of *Huea flava* by the first author (Fryday in Opusc. Philolichenum 9: 91. 2011) revealed that the same sterile crust annotated as the type of *H. flava* extends around to the side of the rock where it is abundantly fertile and where there is another label identifying it (correctly) as *Lecidea capsulata* C.W. Dodge & G.E. Baker (l.c.: 533). This species was transferred to *Carbonea* as *C. capsulata* (C.W. Dodge & G.E. Baker) Hale (in Lichenologist 19: 280. 1987) and reduced to synonymy with the widespread *C. vorticosa* (Flörke) Hertel by Øvstedal & Lewis Smith (Lichens Antarctica, S. Georgia: 153. 2001). The holotype of *L. capsulata* (Siple & Corey 72A-2) is no longer present in FH and, consequently, Hale (l.c.) selected a neotype for the species. However, because Siple & Corey 73-10 (which is also the type of *H. flava*) is mentioned by Dodge & Baker in their protologue of *L. capsulata* (l.c.: 533), it is available to be selected as the lectotype of *L. capsulata*, as indeed are surviving specimens of the other five paratypes. Any such selection would supersede Hale’s neotype.

The importance of conserving *Huea* with a type other than *H. flava* is to be seen in the fact that *Carbonea* (Hertel) Hertel (in Mitt. Bot. Staatssamml. München 19: 441. 1983), a well-established genus of ca. 30 species (Index Fungorum, <http://www.indexfungorum.org>) with a cosmopolitan distribution on all seven continents (GBIF, <https://www.gbif.org/occurrence/map?q=Carbonea>), has already been, incorrectly, included as a synonym of *Huea* by some online resources (e.g., <http://www.indexfungorum.org>, <https://outlineoffungi.org>). This is due to a misinterpretation of the first author’s previous publication (Fryday, l.c.), in which it was stated (incorrectly as noted above) with respect to the specimen, *P. Siple & S. Corey 73-10*, the holotype of *H. flava*, that it “must be designated as the lectotype of *L. capsulata*” but without explicit designation as required under Art. 7.11.

The simplest course of action would be to formally reject *Huea*, but according to Søchting & al. (in Biblioth. Lichenol. 88: 610. 2004)

“preliminary sequence data of the ITS nrDNA separate the black Antarctic species from other *Caloplaca* species, including those of the similarly black *Pyrenodesmia*-group”, and subsequent molecular analysis by the second author and co-workers has shown that the two other species included in *Huea* by Dodge & Baker (l.c.: 618), *H. cerussata* and *H. coralligera*, are sister species (as already described by Hue) and appear to have a fairly basal position in *Caloplacoidae* (*Teloschistaceae*). Frolov & al. (l.c.) further showed, using molecular methods, that *H. cerussata* occupied a position close to *Pyrenodesmia* but separated from it by several species and groups of species that contained anthraquinones in their apothecia. Therefore, as these two species conform to the description given in the protologue of *Huea*, it is preferable to retain the generic name *Huea* for them and possibly two others that have been added subsequently (*H. diphyella* (Nyl.) C.W. Dodge, *H. soreliata* Øvstedal), rather than have to erect a new genus to accommodate them. Therefore, we propose here to conserve a new type for the name *Huea*, which is best done by selecting one of the other two species names included in the protologue of *Huea* by Dodge & Baker (viz., *H. cerussata* or *H. coralligera*). Søchting & al. (l.c.) proposed that *H. coralligera* should be selected as a neotype but, because they did not publish a formal proposal, this suggestion has no relevance. A factor mitigating against *H. coralligera* as the conserved type is that the correct name for this species is, unfortunately, in doubt. Lamb (in Brit. Antarct. Surv. Sci. Rep. 61: 19. 1968) proposed the new combination *Huea grisea* (Vain.) I.M. Lamb and included *H. coralligera* as a synonym, but the type specimen of *Pertusaria grisea* Vain. (Résult. Voy. Belgica, Lich.: 22. 1903), the basionym of *H. grisea*, is a sterile crustose lichen lacking apothecia and its identity cannot be determined with certainty. Although this would not affect the status of *H. coralligera* as the possible type of *Huea*, it seems best to avoid the uncertainty when another, equally suitable candidate is available and for which molecular sequence data is available confirming its phylogenetic position as distinct from *Pyrenodesmia* (Frolov & al., l.c.). Consequently, we here propose *H. cerussata*, based on *Lecidea cerussata* Hue (Deux. Expéd. Antarct., Lich.: 101. 1915), as the conserved type of *Huea* to preserve the name in its original intention and to prevent it being taken up for the group of species currently known as *Carbonea*.

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