

NOVELTIES IN THE FAMILY PSATHYRELLACEAE. PART IV

Abstract

*In this contribution some more names of taxa are validated or recombined following modern systematics, a correct epitype for *Psathyrella spadiceogrisea* is proposed, Subsections *Spadiceogriseae* and *Lutenses* of *Psathyrella* are risen to sectional level, a type name is formally proposed for *Coprinopsis* Sect. *Lanatulae*, and nomenclatural notes about *Psathyrella fusca* are given. The online key to Family *Psathyrellaceae* contains now one more partition treated on a world, not only European, scale: *Psathyrella* Sect. *Pseudostropharia* (https://www.ameronlus.it/chiavi_micologia.php).*

Riassunto

*In questo contributo vengono convalidati o ricombinati secondo la sistematica moderna alcuni nomi di taxa, viene proposto un epitipo corretto per *Psathyrella spadiceogrisea*, le sottosezioni *Spadiceogriseae* e *Lutenses* di *Psathyrella* sono elevate a livello di sezione, un nome tipo viene formalmente proposto per *Coprinopsis* sez. *Lanatulae* e vengono riportate alcune note nomenclaturali su *Psathyrella fusca*. La chiave online della famiglia *Psathyrellaceae* contiene ora un'altra ripartizione rielaborata, non solo a livello europeo, ma anche mondiale: *Psathyrella* sezione *Pseudostropharia* (https://www.ameronlus.it/chiavi_micologia.php).*

TAXONOMIC NOVELTIES

Epitypification

Psathyrella spadiceogrisea (Schaeff.) Maire, Mém. Soc. Scien. Natur. du Maroc 45: 113 (1937)

Superseding epitype (designated here): France, Essonne, Mennecy, Parc de Villeroy, April 2004, collector G. Tassi 04005, MCVE 29103, Tef-1 α MF521779, ITS MF325997, MBT393232, photograph published in VOTO, DOVANA & GARBELOTTO (2019) by concession of G. Tassi.

Notes

The new epitype here proposed supersedes (art. 9.19 and 9.20, ICN-TURLAND *et al.*, 2018) the one proposed by MELZER (2018) because it conflicts with the protologue and the iconotype, in fact it differs taxonomically and represents instead another species: *Psathyrella albescens* Hesler & A.H. Sm. The ITS sequence of the epitype proposed by MELZER (2018) is located in the phylogenetic trees in the position occupied by *P. albescens*, which is close to the subclade of *P. thujina* A.H. Sm. and which for the purpose of this discussion will be called subclade *P. albescens*; this subclade is very distant and definitely separate from the location of *P. spadiceogrisea*, which is close to the subclade of *P. albanyensis* A.H. Sm. and which for the purpose of this discussion will be called subclade *P. spadiceogrisea* [compare trees from MELZER (2018) and VOTO, DOVANA & GARBELOTTO (2019)]. The position of *P. spadiceogrisea* in the phylogenetic tree published by ÖRSTADIUS, RYBERG & LARSSON (2015) is in agreement with those in VOTO, DOVANA & GARBELOTTO (2019) which last propose an ITS tree, a Tef-1 α tree and a true combined tree.

Collections located in subclade *P. albescens*, including the epitype and relative photographs and description proposed by MELZER (2018), never bear any trace of red-brown, date-brown, spadiceous brown in the colour of young pileus; they at most, and only when well hydrated, fresh and very young, reach a dark yellow-brown to cinnamon-brown colour as just typical of *P. albescens* [see the protologue by SMITH (1972) and its revision by VOTO, DOVANA & GARBELOTTO (2019)], e.g. MCVE29113 which has an unequivocal conspecific position in the trees with the vouchers of exannulate collections including the type.

Contrarywise, pilei of *P. spadiceogrisea*, in young and sometimes still in mature stages, show those colours, as represented both in the name itself and in the corresponding colour drawing by SCHÄFFER (1774) (table 237, iconotype).

Also, the protologue of *P. spadiceogrisea* reports "*velo et annulo destitutus*", which is clearly very different from the often present veil, either appendiculate at the pileus margin or even as a ring on the stem, defined for *P. albescens* (SMITH, 1972) and possessed by various collections whose sequences fall in subclade *P. albescens* (VOTO, DOVANA & GARBELOTTO, 2019). Contrarywise, *P. spadiceogrisea* has a scarce fugacious veil that only in young specimen with unexpanded pilei can be seen covering or fringing the pileus margin.

Type designation

Coprinopsis* Sect. *Lanatulae (Fr.) D.J. Schaf., Field Mycol. 11(2): 51 (2010)

Basionym: *Coprinus* sect. *Lanatuli* Fr. Epic. Syst. Mycol.: 250 (1838).

Type name (designated here): *Agaricus lagopus* Fr., Syst. Mycol. 1: 312 (1821).

Notes

No name seems ever have been validly proposed up to now as type name for this section. BOGART (1979) reported *Coprinus cinereus* Schaeff. as type species of sect. *Lanatuli* Fr. (1838) but FRIES (1838) included *Coprinus cinereus* in *Coprinus* tr. *Pelliculosi* (Section) *Tomentosi*, not in *Coprinus* tr. *Veliformes* (Section) *Lanatuli*. The name *Lanatuli* would seem to be a reference to *C. lanatus* Fr. but, if so, this would be an unclear hint as the name should have been *Lanati*.

Among the five names FRIES (1838) included in his *Lanatuli*, it can be noted that *C. narcoticus* (Batsch) Fr. is currently the type name of the autonomous Sect. *Narcoticae*, while *C. lanatus* and *C. nycthemerus* Fr. are currently obscure species generally ignored in modern systematics. The remaining *C. lagopus* (Fr.) Fr. (which appears first in Fries's list) and *C. radiatus* (Bolton) Gray are currently accepted in sect. *Lanatulae*. As the former is definitely more common and widespread all over the world, it is chosen as type name.

Nomenclatural notes

Psathyrella fusca (J.E. Lange) A. Pearson, Transact. British Mycol. Soc. 35(2): 120 (1952)

Basionym: *Psathyra fusca* J.E. Lange, Dansk botan. Arkiv 9 (1): 12 (1936).

Modern mycologists have no doubt that *Psathyrella fusca* (J.E. Lange) A. Pearson and *Psathyrella tephrophylla* (Romagn.) Bon are conspecific names but some conflict still arises which of the two is to be used.

When LANGE (1952) proposed his name, he wrote "*P. fusca* (Schum.)" thus engendering the impression that he was meaning to propose a new combination of *Agaricus fuscus* Schumach. (1803). This last was validly published but, as a later homonym of *A. fuscus* Schaeff. (1774), is illegitimate and, consequently, any new combination having this name as basionym would inevitably be illegitimate too.

However, by Lange's comment "*I have no doubt that it is the plant described by Schumacher as Agaricus fuscus*", there can be no doubt that he was actually meaning to give a name to his own collection, and proposing that, on his opinion, it corresponded to the species Schumacher named *A. fuscus*. Therefore Lange's name has to be interpreted as a *nomen novum* having as a synonym, and therefore replacing, *A. fuscus* Schumach. Thus *Psathyra fusca* J.E. Lange is validly published and legitimate, and consequently *Psathyrella fusca* (J.E. Lange) A. Pearson (1952) is a legitimate name that predates *Psathyrella tephrophylla* (Romagn.) Bon (1983).

More notes on "*Coprinus plicatilis*" and *Parasola plicatilis* Voto

Another misidentified description of *C. plicatilis* outside of Europe was found in PEGLER (1977) from central east Africa. It sufficiently resembles *Parasola hercules* (Uljé & Bas) Redhead, Vilgalys

& Hopple, known since 1985 from Malta to Denmark in Europe; in particular, the characteristic broad dimension and triangular shape of spores are strongly symptomatic. After segregation of *P. plicatilopsis*, as a sort of *P. plicatilis* with central germ pore from subequatorial regions, I have found two more descriptions, *Pseudocoprinus brunneolus* McKnight & P. Allison from Ecuador and *C. plicatilis* sensu PEGLER (1986) from Sri Lanka, actually representing that species.

New combinations

Coprinellus carbonicola (Singer) Voto, comb. nov. [MB 836308]. Basionym: *Coprinus carbonicola* Singer, Beih. z. Nov. Hedw. 29: 176 (1969).

Coprinellus castaneus (Berk. & Broome) Voto, comb. nov. [MB 836784]. Basionym: *Coprinus castaneus* Berk. & Broome, Botan. Journ. Linn. Soc. 11: 561 (1871).

Coprinellus sclerobasidium (Singer) Voto, comb. nov. [MB 836310]. Basionym: *Coprinus sclerobasidium* Singer, Beih. z. Nov. Hedw. 29: 179 (1969).

Coprinellus subangularis (Thiers) Voto, comb. nov. [MB 836311]. Basionym: *Coprinus subangularis* Thiers, Mycol. 51 (4): 537 (1960).

Coprinellus subrenispermus (Singer) Voto, comb. nov. [MB 836312]. Basionym: *Coprinus subrenispermus* Singer, Beih. z. Nov. Hedw. 29: 182 (1969).

Coprinellus venustus (McKnight & P. Allison) Voto, comb. nov. [MB 836666]. Basionym: *Pseudocoprinus venustus* McKnight & P. Allison, Morr. Arboret. Bull. 20 (4): 71 (1970).

Coprinopsis hypsizyga (Singer) Voto, comb. nov. [MB 836313]. Basionym: *Coprinus hypsizyga* Singer, Beih. z. Nov. Hedw. 29: 177 (1969).

Coprinopsis murina (Kalchbr.) Voto, comb. nov. [MB 836314]. Basionym: *Coprinus murinus* Kalchbr., Grevill. 8 (48): 152 (1880).

Notes

PEGLER (1965) reports that the type, “*Richmond River, N.S.W., F. von Mueller s.n.*” (K), seems lost; however both he and MASSEE (1896) recognize another collection from Victoria State, “*Port Phillip, Ch. French jnr., Oct. 1885*” (K), as an acceptable representative of the original description and its PEGLER’s (1965) revision adds sufficient data for proposing the new combination.

Coprinopsis saccospora (Singer) Voto, comb. nov. [MB 836315]. Basionym: *Coprinus saccosporus* Singer, Beih. z. Nov. Hedw. 29: 179 (1969).

Coprinopsis subcurta (Thiers) Voto, comb. nov. [MB 836317]. Basionym: *Coprinus subcurtus* Thiers, Mycol. 51 (4): 536 (1960).

Homophron submaculatum (G.F. Atk.) Voto, comb. nov. [MB 836318]. Basionym: *Psilocybe submaculata* G.F. Atk., Annal. Mycol. 7 (4): 375 (1909).

Psathyrella* Sect. *Lutenses (Kits van Wav.) Voto comb. nov. [MB 836319]. Basionym: *Psathyrella* Subsection *Lutenses* Kits van Wav., Persoonia Supplem. 2: 280 (1985).

Psathyrella* Sect. *Spadiceogriseae Kits van Wav. emend.

The definition of the Section is emended as to include only the species with a gill edge lined with large numbers of predominantly or almost exclusively sphaeropedunculate to clavate cells (paracystidia) and a minority of pleurocystidioid cheilocystidia; also it comprises only species with a white, not pigmented, general veil.

Notes

In fact this emendation rises Subsection *Spadiceogriseae* to sectional level. Various studies and phylogenetic trees [see Örstadius, RYBERG & LARSSON (2015), VOTO, DOVANA & GARBELOTTO (2019)] show that Subsect. *Spadiceogriseae* is a well formed morphological unit and that it is phylogenetically detached from Subsection *Lutenses*; indeed species of the latter appear strewn in the trees without a unitary bulk, at least its type species, *P. lutensis* (Romagn.) Bon, appears isolated from other sister members.

As Subsect. *Spadiceogriseae* is autonomous, the only way to detach the two and to rise it to sectional level was to emend the definition of the section and to rise Subsect. *Lutenses* to sectional level too.

New taxa for invalid or illegitimate names

Albocoprinus Voto, nom. nov. [MB 836341]

Replaced synonym: *Coprinopsis* Beeli, Bull. Soc. Roy. Bot. Belg. 61 (1): 98 (1928), nom. illeg., Art. 53.1, non *Coprinopsis* P. Karst., 1881.

Etymology: The name refers to the white spore print (*albo*) and to the deliquescence which is classically associated with the name *Coprinus*.

Type species: *Coprinopsis ealaensis* Beeli, Bull. Soc. Roy. Bot. Belg. 61 (1): 98 (1928).

Notes

SINGER (1975) hypothesized it could be congeneric with *Oudemansiella* but YANG *et al* (2009) did not report this synonymy. Beeli made no reference to a viscid pileus, typical of it, while deliquescence is not documented in none of its species.

Albocoprinus ealaensis (Beeli) Voto comb. nov. [MB 836342]. Basionym: *Coprinopsis ealaensis* Beeli, Bull. Soc. Roy. Bot. Belg. 61 (1): 98 (1928).

Lacrymaria malayana S.M.L. Lee & Voto, sp. nov. [MB 836346]

Typus: Singapore, Botanic Garden, 23.X.1934, Corner s.n., herb. Royal Bot. Gard. Edinb. E00204811 (<http://data.rbge.org.uk/herb/E00204811>).

= *Psathyrella malayana* Corner, Gard. Bull. Singap. 45 (2): 341 (1993), nom. inval., Art. 40.7.

= *Lacrymaria malayana* (Corner) Voto, RMR, Boll. Amer. 107(2): 94 (2020 “2019”), nom. inval., Art. 40.7.

Etymology: The name recalls that of the invalid *Psathyrella malayana* Corner.

Description: that of *Psathyrella malayana* Corner, Gard. Bull. Singap. 45 (2): 341 (1993).

Lacrymaria splendens S.M.L. Lee & Voto, sp. nov. [MB 836324]

Typus: Singapore, Pierce Reservoir, 9.III.1930, Corner s.n., herb. Royal Bot. Gard. Edinb. E00204810 (<http://data.rbge.org.uk/herb/E00204810>),

= *Psathyrella splendens* Corner, Gard. Bull. Singap. 45 (2): 341 (1993), nom. inval., Art. 40.7.

= *Lacrymaria splendens* (Corner) Voto, RMR, Boll. Amer. 107(2): 95 (2020 “2019”), nom. inval., Art. 40.7.

Etymology: The name recalls that of the invalid *Psathyrella splendens* Corner.

Description: that of *Psathyrella splendens* Corner, Gard. Bull. Singap. 45 (2): 341 (1993).

Lacrymaria verrucispora S.M.L. Lee & Voto, sp. nov. [MB 836325]

Typus: Malaysia, Johor, Gunong Panti, ?.VIII.1929, Corner s.n., herb. Royal Bot. Gard. Edinb. E00204780 (<http://data.rbge.org.uk/herb/E00204780>).

= *Psathyrella verrucispora* Corner, Gard. Bull. Singap. 45 (2): 344 (1993), nom. inval., Art. 40.7.

= *Lacrymaria verrucispora* (Corner) Voto, Rivista Micologica Romana, Boll. Amer, 107(2): 95 (2020 "2019"), nom. inval., Art. 40.7.

Etymology: The name recalls that of the invalid *Psathyrella verrucispora* Corner.

Description: that of *Psathyrella verrucispora* Corner, Gard. Bull. Singap. 45 (2): 344 (1993).

Psathyrella mollipluvisyloae Dibán & Voto nom. nov. [MB 836320]

Replaced synonym: *Psathyrella subprona* Singer, Beih. z. Nov. Hedw. 29: 193 (1969), nom. illeg., Art. 53.1, non *Psathyrella subprona* Cleland, 1927.

Etymology: The name means that this is a *Psathyrella* of the temperate (*molli*) rainforest (*pluvisyloae*).

Notes

Both type and a paratype were found in riparian sites: close to the ocean in Chile the former, near a lake in Argentina the latter; probably endemic in these two countries in its proper habitat.

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