

Supplementary Table S1 - List of voucher and accession numbers, taken from NCBI GenBank, used in the phylogenetic analysis.

Designation in Genbank	Country	Voucher	Accession No.
<i>Coprinellus</i> sp.	Brazil	BLBS 107	MK843955
Uncult. fungus clone (later as <i>Coprinellus</i>)	Ecuador	UCUE PC M 22M23	MF471294
<i>Coprinellus aureogranulatus</i>	China	HMJAU 46304	MH379152
<i>Coprinellus aureogranulatus</i>	China	HMJAU 46305	MH379153
<i>Coprinellus aureogranulatus</i>	China	HMJAU 46306	MH379154
<i>Coprinellus aureogranulatus</i>	Papua New Guinea	CBS 753.96 - Isotype	MH862611
<i>Coprinellus aureogranulatus</i>	Sri Lanka	DZF4A	MF195026
<i>Coprinellus aureogranulatus</i>	São Tomé and Príncipe	SFSU DED 8251	KX017206
<i>Coprinellus radians</i>	Hungary	SZMC-NL-1373	JN943118
<i>Coprinellus radians</i>	Germany	AM783	MK072830
<i>Coprinellus radians</i>	Germany	AM804	MK072831
<i>Coprinellus radians</i> (as <i>C. xanthothrix</i>)	Sweden	SZMC-NL-128-08	JN943105
<i>Coprinellus radians</i> (as <i>C. xanthothrix</i>)	Hungary	SZMC-NL-3417	JN943112
<i>Coprinellus domesticus</i>	Japan	AF1-1	AB597769
<i>Coprinellus domesticus</i> (as <i>C. xanthothrix</i>)	Hungary	SZMC-NL-1292	FN396102
<i>Coprinellus domesticus</i> (as <i>C. radians</i>)	USA	C22	EU168103
<i>Coprinellus domesticus</i> (as <i>C. radians</i>)	Hawaii, USA	SFSU DEH1026	AY461815
<i>Coprinellus domesticus</i> (as <i>C. radians</i>)	Hawaii, USA	SFSU DEH1765	AY461818
<i>Coprinellus domesticus</i> (as <i>C. xanthothrix</i>)	Portugal	OT1-82	KT804053
<i>Coprinellus domesticus</i> (as <i>C. xanthothrix</i>)	China	NEFU33	KJ028784
<i>Coprinellus domesticus</i> (as <i>C. radians</i>)	China	M65	HM045514
<i>Coprinellus domesticus</i> (as <i>C. xanthothrix</i>)	China	Z36	JN198387
<i>Coprinellus xanthothrix</i>	USA	C144	EU168104
<i>Coprinellus xanthothrix</i>	USA	C398	EU168105
<i>Coprinellus xanthothrix</i>	USA	C482	EU168106
<i>Coprinellus xanthothrix</i> (as <i>C. domesticus</i>)		TOK21808	JN159580
<i>Coprinellus xanthothrix</i> (as <i>C. domesticus</i>)	France	CNRMA 10.949	KP132301
<i>Coprinellus xanthothrix</i> (as <i>C. radians</i>)		00229-3	KT192203
<i>Coprinus patouillardii</i> (= <i>Narcissea patouillardii</i>)	Hungary	SZMC-NL-1684	FN430687
<i>Coprinus patouillardii</i> (= <i>Narcissea patouillardii</i>)	Hungary	SZMC-NL-1685	FN430686
<i>Coprinus patouillardii</i> (= <i>Narcissea patouillardii</i>)	Hungary	SZMC-NL-1687	FN430685
<i>Coprinus patouillardii</i> (= <i>Narcissea patouillardii</i>)	Hungary	SZMC-NL-1695	FM878009

Supplementary Table S2. Comparative data of *Coprinellus aureogranulatus* and *Coprinellus andreorum* Sammut & Karich sp. nov

	<i>C. aureogranulatus</i>			<i>C. andreorum</i>	
	Ujé et al. (1998)	Desjardin and Perry (2016)	Meizer et al. (2016)	Huang and Bau (2018)	this work
Origin	Papua New Guinea	São Tomé	Seychelles	China	Malta
Cap size expanded	-50 mm	-50 mm	-11 mm	-30 mm	-45 mm
Veil	wooly/felty	granulose, brown	granular, brown in centre	golden-yellow veil	scattered, with brown tufts
Lamellae	L= c. 26, l=1-3	close to crowded, l=2-3	distant	crowded	L= c. 40 - 60, l=1 - 3
Stipe	-100 x 2-3 mm	40–70 × 2–3 mm	45 x 1 mm	20-40 x 1-4 mm	30-40 x 1-3 mm
Stipe base	golden-yellow mycelium		yellow-brown felty	golden-yellow mycelia	mycelium rust-brown
SporeSize	6.2-7.8 x 4.1-5.1 x 3.7-4.3 µm	8–10.5 × 5–5.5 µm	7.5-8 (-8,8) x 4.5-5 µm	(7.3-)7.8-9.3(-10) × (4.6)4.9–5.6(-6.1) µm	7.4-10.0 × 4.3-5.7 x 4.0-5.2 µm
Mean L x W	6.8-7.0 x 4.5-4.7 µm		8 x 4.8 µm	8.6 × 5.3 µm	7.7-8.8 x 4.97 µm
Q	1.40-1.70		1.50-1.86	1.4-1.8	1.59-1.92
Mean Q	1.50-1.55		1.67	1.7	1.75
Front view	ellipsoid	ellipsoid	oblong, ovoid	ellipsoid	ellipsoid
Side view	phaseoliform	phaseoliform	slightly phaseoliform	phaseoliform	phaseoliform
Sp. colour in water			light red-brown	rather dark red-brown	Medium red-brown
Sp. colour in KOH	medium to dark brown	dark brown in ?	greyish brown	olive-green (KOH)	
Germ pore	central	large, central	large, central	central	central
Basidia	16-30 x 5.5-8 µm	12.8–16 × 7–9 µm	20-25 x 7-8 µm	17–37 × 5–11 µm	17-28 x 6.5-9 µm
Sterigma	4	4	4	4	4
Pseudoparaphses	3-5		4-5	3-5	3-5
Cheilocystidia size	40-90 x 13-23 µm	57–85 × 14–23 µm	27-55 x 11-16,5 µm	32–73 × 10–20 µm	40-60 x 18-26 (base) x 6-8 µm (tips)
Cheilo. shape	lageniform	lageniform	lageniform	lageniform, utriform	lageniform
Paracystidia	subglobose	fusoid ventricose	rare, clavate	clavate	
Pleurocystidia	absent or rare	none	not found		55-110 x 30-45 µm large inflated
Pleocystidia size	60-110 x 12-20 µm	100–150 × 12–23 µm	80 x 15 µm	78–183 × 12–24 µm	65-110 x 16-31 µm
Pleocystidia shape		fusoid with a subcylindrical neck	sublageniform	lageniform	lageniform
Caulocystidia size	60-125 x 14-22 µm	75-130 x 12-20 µm	not examined	70–164 × 15–24 µm	75-180 x 15-21 µm
Caulocystidia shape	lageniform	narrowly lageniform with a subcylindrical neck		lageniform	roughly lageniform but multidigitate (branched) from 1-4 digits
Clamps	absent	absent	absent	absent	absent
Veil (micro)	sphaerocysts, - 30 µm, thick-walled, yellowish, encrusted. (chains shown in published figure)	22–44 × 16–30 µm, globose to vesiculose or broadly clavate, smooth or slightly incrusted, golden brown, thin-walled or with walls up to 1 mm thick	chains subglobose, yellowish to brownish, mostly encrusted cells with a diameter of 11-24,5 µm and 1,2-1,8 µm thick walls. Terminal cells of subcylindrical, thick or thin-walled, colourless or pigmented, weakly to strongly encrusted cells; subglobose, thin-walled and colourless cells are also present in small numbers	combined with chains of globose, clavate and cylindrical cells, 20–49 × 7–25 µm, terminal cells often as elongate elements, partially thick-walled and slightly encrusted, abundant, dark yellow-brown or hyaline.	consisting of chains of encrusted brownish coloured subcylindrical elements 25-50 x 15-25 µm; terminal elements, with hyaline globose elements 20-45 µm in diameter.