

Zeitschrift: Mycologia Helvetica
Band: 3 (1988-1990)
Heft: 1

Artikel: Marasmius skalae : a new species from a greenhouse from
Czechoslovakia
Autor: Antonín, Vladimír
DOI: <https://doi.org/10.5169/seals-1036517>

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. [Siehe Rechtliche Hinweise.](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. [Voir Informations légales.](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. [See Legal notice.](#)

Download PDF: 09.11.2024

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

MYCOLOGIA HELVETICA

Vol. 3 No 1

pp. 37—42

1988

(Manuscript received on 13th October 1986)

MARASMIUS SKALAE, A NEW SPECIES FROM A GREENHOUSE FROM CZECHOSLOVAKIA

Vladimír Antonín
Moravian Museum
nám. 25. února 6, 659 37 Brno
Czechoslovakia

Summary: A new species of the genus Marasmius, M.skalae Antonín, belonging to the section Sicci, is described from a greenhouse in the Botanical Gardens Teplice (Bohemia, Czechoslovakia). The species is described and its relationship to allied species is discussed.

Zusammenfassung: In einem Gewächshaus des Botanischen Gartens Teplice (Böhmen, Tschechoslowakei) wurde eine neue Art aus der Gattung Marasmius entdeckt: M.skalae Antonín. Die neue Art, die in die Sektion Sicci gehört, wird beschrieben, und ihre Unterschiede zu verwandten Arten werden besprochen.

Résumé: Une espèce nouvelle du genre Marasmius a été récoltée dans une serre du Jardin Botanique de Teplice (Bohême, Tschécoslovaquie): M.skalae Antonín. Cette nouvelle espèce, classée dans la section des Sicci, est décrite et ses différences avec les espèces voisines sont discutées.

Edvard Skála collected an interesting species of the genus Marasmius in a greenhouse of the Botanical Gardens in Teplice (Czechoslovakia) in 1984. According to its macroscopical and microscopical characters the new species belongs to the section Sicci Singer, to the subsection Siccini Singer on account of the dextrinoid trama of the pileus, and to the series Haematocephali Singer (presence of pleurocystidia and lack of setae in both pileus epicutis and hymenophore). As I cannot identify this collection with any European, American or African species I describe it as a new one.

Marasmius skalae Antonín sp.nov.

Pileus 11-30 mm latus, campanulatus, subumbilicatus, paene versus centrum striatus, centrum ferrugineum, margo pallida cum sulco pallidiori. Lamellae subdistantes vel distantes, adnatae vel liberae, cremae, cum acie obscura, L = 16-20, l = 0-1. Stipes 34-45 mm longus et 1-1.5 mm crassus, glaber, fistulosus, lucidulus, sub pileo albidus, brunneolus seu aureo-brunneus, in basi obscure rubello-brunneus, basis cum tomento sparso. Sporae (12-)13-19 x 4-5.25 μm , clavatae vel guttiformae. Basidia 24-36 x 6.75-9 μm , clavata, fibulata, tetra-sterigmatica. Basidiolae 25-34 x 7-10.5 μm , clavatae, cylindricae, fusiformae, fibulatae. Pleurocystidia 39-92 x 6.5-11 μm , fusiformes, cylindrico-fusiformes, nonnumquam cum apice obtuse acuto. Cheilocystidia similim cellulis cutis pilei, 10-12 x 4.5-7 μm , superne cum projecturis obtusis, in apice cellulae et projectiones luteo-brunneolae. Cutis pilei e cellulis clavatis vel cylindricis, 12-22 x 5.5-10 μm , cum projectionibus obtusis usque 8 μm longus.

Holotypus: Bohemia: in tepidario subtropico in horto botanico in Teplice, cum Aspidistra elatiore, Persea americana et Duranta sp., 28.VII.1984 leg. E.Skála, BRNM 359162.

Pileus 11-30 mm broad, campanulate convex, umbilicate and slightly rugulose in the middle, distinctly sulcate almost to the center, margin flexuous and tending to become uplifted in age; ferruginous in fresh material turning dark cinnamon when dried, darkest at the center, paler towards the margin, in sulci very pale (almost pale ocre). Lamellae without collarium or with a little distinct adnate collarium, adnexed to broad-adnexed or free, moderately broad (1-1.5-2 mm), subdistant to distant (L = 16-20), intermixed with lamellulae or not (l = 0-1); whitish to cream with darker edge. Stipe 34-45 x 1-1.5 mm, smooth, glabrous, slightly shining, hollow; dark red-brown with at first white to whitish apex darkening to gold-brown; with little developed, tomentose, whitish basal mycelium. Context very thin, white.

Spores (12-)13-19 x 4-5.25 μm , hyaline, indextrinoid, acyanophilous, drop-shaped to clavate. Hymenium: basidia 24-36 x 6.75 - 9 μm , clavate, with basal clamp-connections, 4-spored, thinwalled, hyaline, acyanophilous, indextrinoid; basidioles 25-34 x 7-10.5 μm , cylindric, clavate or fusoid, at apex obtuse, hyaline, thinwalled, with basal clamp-connections, indextrinoid, acyanophilous; pleurocystidia 39-92 x 6.5-11 μm , hyaline, indextrinoid, acyanophilous,

fusoid, cylindric-fusoid to slightly clavate, often with a distinct obtuse top; cheilocystidia 10-12 x 4.5-7 μm , similar to epicuticular broom cells, cylindric to clavate or sometimes vesiculate, lower part almost hyaline, apical part and projections yellow-brown, edge sterile, projections up to 7 μm long, obtuse to subacute. Subhymenium of hyaline, dextrinoid, cyanophilous, thinwalled, clamped and branched hyphae. Hyphae of the pileic trama 1.5-8 μm wide, hyaline, dextrinoid, branched, thinwalled, clamped. Hyphae of the lamellar trama 3-11 μm wide, hyaline, dextrinoid, cyanophilous, thinwalled, clamped, branched, ending sometimes with a small head up to 15 μm broad. Covering of the stipe of parallel, clamped, dextrinoid, thickwalled (up to 1.5 μm) hyphae, at apex hyaline to slightly brownish, at base dark yellow-brown pigmented, 2-7 μm wide, at apex with scarce small outgrowths, at base with hairs up to 85 μm long and 2-3 μm wide; hyphae of the context of the stipe dextrinoid, cyanophilous, parallel, hyaline or slightly brownish at base, clamped, 4-14 μm wide, thinwalled. Epicutis of the pileus hymeniform, consisting of broom cells of the Siccus-type; main body of broom cells generally larger than that of the cheilocystidia, at the basis hyaline or slightly yellow, apical part and projections with yellow-brown pigmented walls, walls up to 1 μm broad; broom cells cylindric, clavate, sometimes slightly capitate, 12-22 x 5.5-10 μm , projections up to 8 μm long and 1-2 μm broad, obtuse, seldom subacute.

Hab. Czechoslovakia, Bohemia, Botanical Gardens Teplice, in a subtropical greenhouse, under *Aspidistra elatior*, *Persea americana* and *Duranta* sp.; 28.VII.1984 leg. E. Skála, BRNM 359162 (Holotype) and Herbarium J. Herink.

This species was also found in the same botanical garden in a tropical greenhouse in April 1984 (Řehoř et Skála 1986). *Marasmius skalae* is named after its collector, mycologist Edvard Skála. The species is characterized by the following combination of characters: large, radially striped pileus, lamellae with darker edge, not strongly developed basal mycelium, large basidia and very long pleurocystidia. Cells from epicutis of pileus and cheilocystidia have pigmented obtuse to subacute projections. Cheilocystidia similar to broom cells of pileus surface but smaller.

Species related to *Marasmius skalae* are those of South America from stirps *Ferrugineus* (Singer 1976). *Marasmius hypophaeus*

Berk. et Curt. differs by smaller pilei (7-17 mm broad after Singer 1976 but after Pegler 1983 up to 30 mm broad), more distant lamellae (L=11-14), a little larger spores (Singer 12-21.5 x 3-5.5 μm , Pegler 16-19 x 3.5-4.5 μm), shorter basidia (up to 30 μm) and pleurocystidia (20-60 μm) and very long projections of broom cells of the pileic epicutis (up to 20 μm). (After Pegler 1983 these cells are only 8-12 x 4-8 μm broad with 3-6 μm long projections.) Marasmius tenuisetulosus (Sing.)Sing. differs by concoloured edge of more distant lamellae (L = 13-16), narrower spores (3-4 μm), shorter basidia (up to 25.5 μm) and pleurocystidia (30-64 μm), hyaline cheilocystidia and acute projections of broom cells. Marasmius grandisetulosus Sing. differs by larger fusoid spores (18-21 μm long), shorter basidia (up to 24.5 μm), hyaline cheilocystidia and very long projections of broom cells of the pileus surface (4-24 x 1-3.35 μm). Marasmius montagneanus Sing. is very close to the new species but it has distant to extremely distant lamellae, a well developed basal mycelium, shorter pleurocystidia (27-51 μm), longer cheilocystidia (14-18.5 μm) and the broom cells of the pileic epicutis are smaller than or of the same size as the cheilocystidia with long projections (2.7-11.5 μm). Marasmius ferrugineus (Berk.)Berk. et Curt. differs by not discoloured edge of distant lamellae (L = 9-13), very small pileus (3-11 mm broad), narrower spores (2.8-4.3 μm) and shorter pleurocystidia (28.5-57 μm). Marasmius haematocephalus (Mont.)Fr. of stirps Haematocephalus (Singer 1976) differs by smaller pileus (4-21 mm), distant lamellae (L = 8-14), light umber stipe with usually well developed basal mycelium, larger spores (14-21.5 x 3.5-6 μm after Singer 1976 but only 3-4.5 μm broad after Pegler 1977 and 1983), much smaller basidioles (20 x 4 μm), shorter pleurocystidia (25-49 μm) and very large cheilocystidia (26 x 5.2 μm after Singer but only 8-10 μm long after Pegler), which are hyaline and with very fine projections. Marasmius siccus (Schw.)Fr. is well differentiated especially by its longer and narrower spores - (13.3-)16-21(-23) x 2.8-4.2(-5) μm (Gilliam 1976).

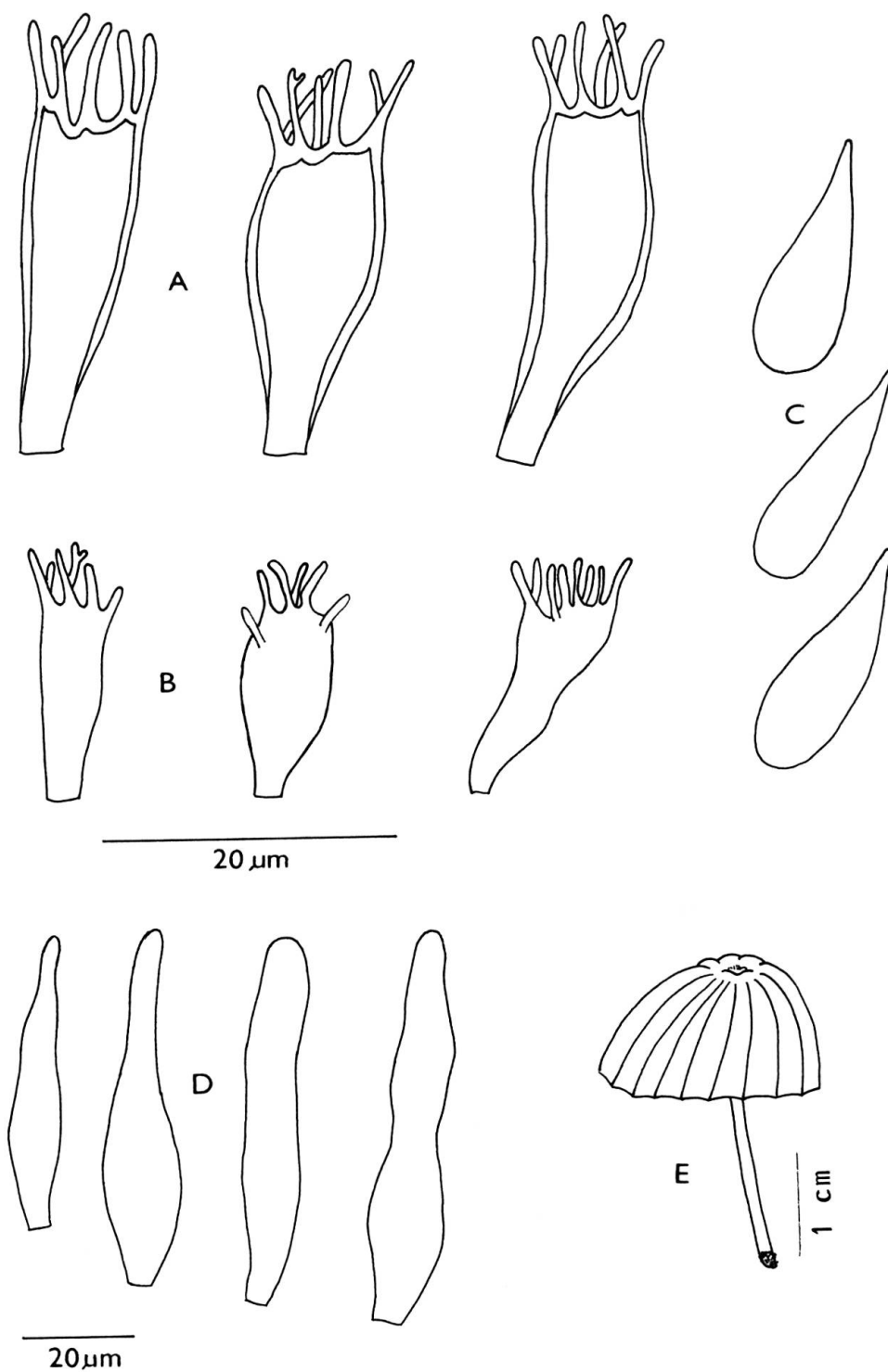
I have studied the type-specimens of Marasmius grandisetulosus Sing. from BR and of M. montagneanus Sing. from LIL, but the type-specimens of M. tenuisetulosus (Sing.)Sing. (BR) and the topotype of M. haematocephalus (Mont.)Fr. (BAFC) could not be traced in those herbaria.

Acknowledgement

I thank E. Skála (Teplice) and Dr. Z. Pouzar (Prague) for turning my attention to this collection, the curators of BR and LIL for sending me type-collections and Dr. A. Hájková (Brno) for help with preparing the Latin diagnosis.

References

- Gilliam, M.S., 1976: The genus *Marasmius* in the northeastern United States and adjacent Canada. *Mycotaxon*, Ithaca, 4: 1-144.
- Pegler, D.N., 1977: A preliminary agaric flora of East Africa. *Kew Bull. Addit. Ser. VI.*, p.1-615.
- Pegler, D.N., 1983: Agaric flora of the Lesser Antilles. *Kew Bull. Addit. Ser. IX.*, p. 1-668.
- Řehoř, Z. et Skála, E., 1986: Mykoflora teplické botanické zahrady. *Čas. Čs. Houb.*, Praha, 63: 12-16.
- Singer, R., 1964: *Marasmius congolais* recueillis par Mme. Goossens-Fontana et d'autres collecteurs Belges. *Bull. Jard. Bot. Brux.*, Bruxelles, 34: 317-388.
- Singer, R., 1965: Monographic studies on South American Basidiomycetes, especially those of the east slope of the Andes and Brasil. 2. The genus *Marasmius* in South America. *Sydowia*, Horn, 18: 106-358.
- Singer, R., 1976: *Marasmieae* (Basidiomycetes-Tricholomataceae). *Flora Neotropica*, New York, 17: 1-347.



Marasmius skaliae (holotype): broom cells of the pileus surface (A), cheilocystidia (B), spores (C), pleurocystidia (D) and fruit body (E).