MARASMIELLUS CAESPITOSUS (PAT.) SING. IN THE NETHERLANDS

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In the late summer of 1971 a tiny whitish agaric was collected by the algologists C.J. den Hartog and V. N. de Jonge on dead leaf-sheaths of *Juncus maritimus* in the salt-marshes of the Mokbaai on the island of Texel (prov. Noord-Holland). When the material arrived at the Rijksherbarium it was in a bad condition because of age and transport, and a thorough microscopical analysis was therefore difficult to make. During the three following years, however, I succeeded in collecting more material in a better state from the same locality and also from another salt-marsh on the island of Goeree (prov. Zuid-Holland) in the south-western part of the Netherlands.

The fruit-bodies of this characteristic species are marasmioid, about 1 cm high with a white or yellowish pileus, slightly decurrent, white lamellae and a pruinose, blue-grey stipe.

There are two species, both described from Tunesia, of which the descriptions more or less fit this marasmioid agaric.

First there is *Marasmius trabutii* Maire, transferred to the genus *Marasmiellus* Murrill by Singer. Maire describes this species as occurring on stems and rootlets of *Scirpus holoschoenus* var. *australis*, a sedge growing on the same type of brackish soils as *Juncus maritimus*. His description is very comprehensive and there seems to be no significant discrepancies between the type collection and the collections mentioned above.

Secondly there is *Clitocybe caespitosa* Pat., also occurring in Tunesia, collected on dead culms of the grass *Erianthus ravennae*. Singer (1946: 129) studied the type and concluded that this species had to be transferred to *Marasmiellus*. He considered Patouillard's species very closely related to *Marasmiellus tricolor* (Alb. & Schw. ex Fr.) Sing. because of the habit and the covering of the pileus and the stipe. He discovered that the spores, which according to Patouillard's description measure 9–10 × 4–5 μm, are much larger when mature, viz. 12.5–19 × 5–6.5 μm. Singer himself did not study specimens of *Marasmius trabutii* Maire, but in his opinion there is not much to distinguish *Clitocybe caespitosa* from *Marasmius trabutii*. After comparing Patouillard's description with that of Maire and with my notes on the Netherlands' collections, I see no reason not to accept Singer's view. As Patouillard's name has priority, *Marasmiellus caespitosus* is the correct name, and *Marasmiellus trabutii* a later synonym.

MARASMIELLUS CAESPITOSUS (Pat.) Sing.—Figs. 1–7

Clitocybe caespitosa Pat. *in* C.r. Congr. Socs sav. Paris, Sect. Sci.: 248. '**1908**' [1909]. — *Marasmiellus caespitosus* (Pat.) Sing. *in* Pap. Mich. Acad. Sci. **32**: 129. 1946.

Marasmius trabutii Maire *in* Bull. Soc. bot. Fr. **56**: 278–279, pl. xx, figs. 15–23. 1909. — *Marasmiellus trabutii* (Maire) Sing. *in* Lilloa **22**: 300. '1949' [1951].

Pileus (1.5–)4–8 mm broad, 1–3 mm high, conico-convex to plano-convex, older specimens often flat or slightly omphaloid, often with a distinct papilla, with incurved margin in young specimens, sometimes weakly radially striate-sulcate, glabrous, or finely powdery-pruinose (under lens), sordid white, at centre (very) pale ochraceous-yellow (3A2–3A3).[1] Lamellae (7–)10–16, unequal, with 1–2–5 lamellulae between each pair, sometimes forked or anastomosing, broadly adnate to slightly decurrent, concolorous with cap, somewhat waxy, white (remaining whitish several hours after collecting). Stipe (3–)5–8 × 0.2–0.7(–1) mm, with bulbous base 1–1.5 mm wide, whitish-cream at apex, downwards passing through yellowish-greyish or olivaceous-greyish colours (3C6–3D6) to dark blue-grey at base (22F2, 23F2), pruinose-pubescent, with whitish, towards base more closely set hairs, sometimes glabrescent with age, elastic, very narrow hollow or solid. Flesh of pileus and stipe white. Smell indistinctive, fungoid. Taste mild. Spore print whitish-cream (Romagnesi's colour chart in 'Les Russules': 1b–2a, 'blanchâtre' to 'crême-blanchâtre').

Spores (11.5–)12.6–17.5 × 5.5–7.8 μm, obovate, sometimes lacrymoid, smooth, hyaline, often with 1 or 2 guttulae and many granules, with large apiculus. Basidia 36–45 × 9–12 μm, 4-spored, clavate, with clamp; sterigmata often short with a broad base. Subhymenium composed of branching hyphae. Edge of lamellae with marginal hairs varying from simply fusiform with an abrupt conical tip to irregularly coralloid-nodulose or branched, scattered among basidia. Trama of lamellae irregular, consisting of hyphae 3–8 μm wide, more or less embedded in a gelatinous matter; trama of pileus organized in the same way. Pileipellis consisting of interwoven, mostly repent, irregularly branching, warty hyphae, with heavy incrustations. Cortex of stipe made up of dark brown hyphae 5–11 μm wide and thick-walled (–2.5 μm), in cross-section round to ovate or polygonal; free tips of surface hyphae forming simple or 2-celled, often slightly warty, hyaline hairs with brown base. Context of stipe also with thick-walled hyphae but paler brown to nearly colourless. Hyphae all non-amyloid; clamp connections abundant.

HABITAT.—Solitary or subgregarious on dead leaf-sheaths of dense clumps of *Juncus maritimus* L. in salt-marshes along the Netherlands' coast, August-September.

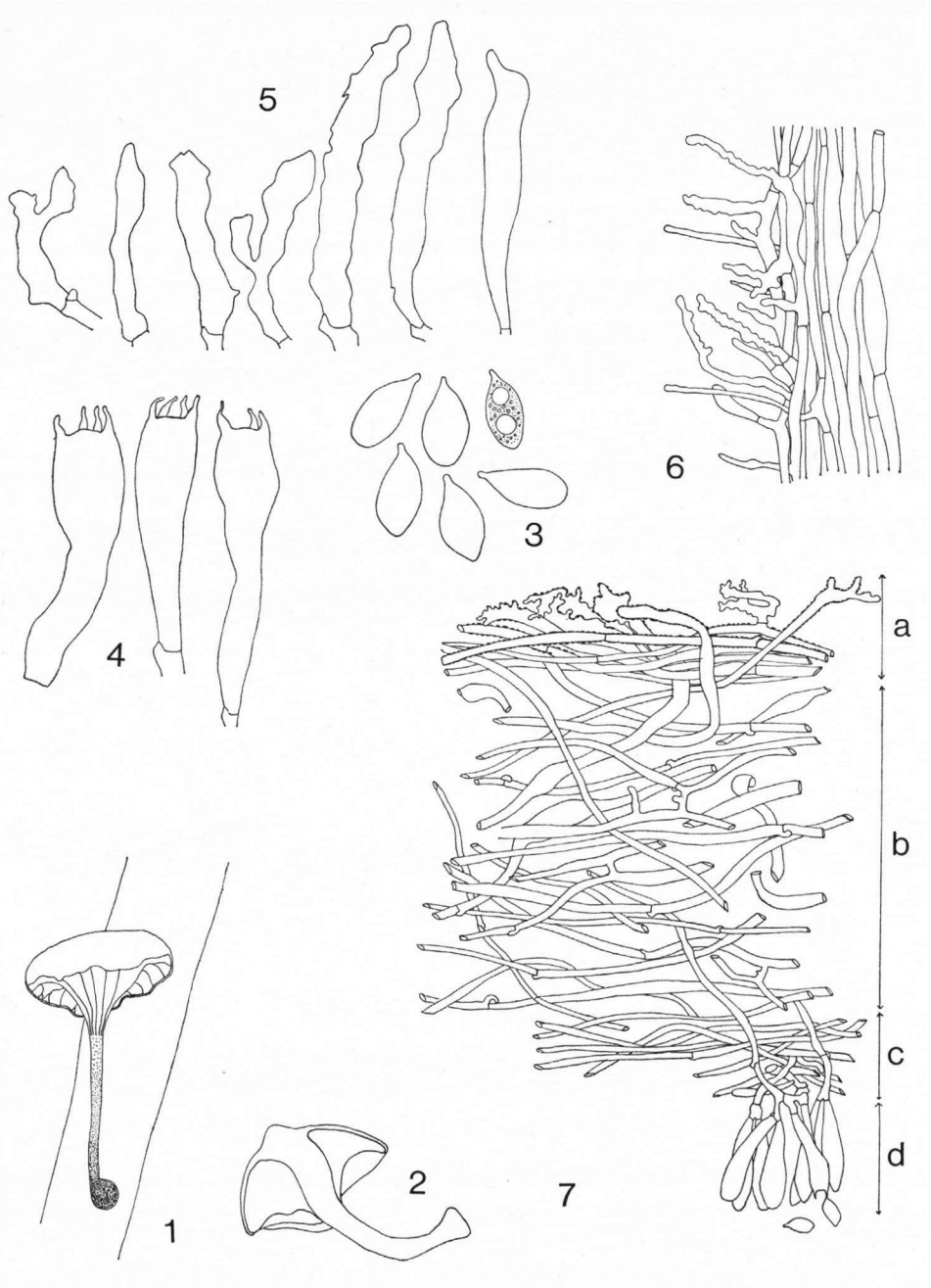
MATERIAL EXAMINED.—NETHERLANDS: prov. Noord-Holland, island of Texel, Mokbaai, 23 Aug. 1971, *C. J. den Hartog*; 11 Sept. 1971, *V. N. de Jonge*; 7 Sept. 1972, 25–26 Aug. 1973, and 22 Aug. 1974, *M. E. Noordeloos*; prov. Zuid-Holland, island Goeree, Kwade Hoek, 10 Sept. 1974, *A. E. Jansen & M. E. Noordeloos* (all coll. in L).

Marasmiellus caespitosus is quite close to *M. tricolor* (Alb. & Schw. ex Fr.) Sing. in having a whitish pileus, a bluish-grey stipe and the same type of covering of pileus and stipe; it differs in having lamellae remaining white after desiccation, much larger spores, typical marginal hairs and perhaps in the gelatinous trama of pileus and lamellae.

[1] These numbers refer to the colour code: Kornerup & Wanscher, Methuen handbook of colour, 2nd ed. London. 1967.

Figs. 1–7. *Marasmiellus caespitosus* (Pat.) Sing. — 1. Carpophore (× 4). — 2. Carpophore, radial section (× 4). — 3. Spores (× 800). — 4. Basidia (× 800). — 5. Marginal hairs (× 800). — 6. Radial section of stipe, surface hyphae with hairs (× 160). — 7. Radial section of pileus; a. Pileipellis, b. Trama=gelatinized zone, c. Subhymenium, d. Hymenium (× 160).

(1, 2, and 7 from Mokbaai, 7 Sept. 1972; 3, 4, and 5 from Goeree, 10 Sept. 1974; 6 from Mokbaai, 25/26 Aug. 1972)


5
6
3
4
a
b
c
d
1
2
7

In the mycological literature I did not find records of *M. trabutii* or *M. caespitosus* from Western Europe, so perhaps the Netherlands' collections are the first. In western Europe this species is possibly restricted to *Juncus maritimus*, and since not many mycologists collect in salt-marshes, this *Marasmiellus* may not be uncommon along the European coasts where its host occurs.

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