

NOTULAE AD FLORAM AGARICINAM NEERLANDICAM – XXII

New taxa in *Marasmiellus*

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Two new taxa in *Marasmiellus* are described from the Netherlands, viz. *M. lateralis* Bas & Noordel., a pleurotoid species in sect. *Marasmiellus*, found on a decaying stump of *Pseudotsuga menziesii*, and *M. trabutii* var. *longisporus* Bas & Noordel. in sect. *Tricolores* from leaf-sheaths of *Ammophila arenaria*.

*Marasmiellus lateralis* Bas & Noordel., *spec. nov.* — Figs. 1–6

Basidiomata gregaria, pleurotoidea, 3–8 mm lata; pileus albus, haud hygrophanus, nec striatus, omnino pruinosis vel subtomentosis; lamellae subventricosae, albae; stipes nullus vel valde reductus, albus, pruinosis.

Spores 5.5–7.0 × 2.5–3.0 μm, Q = 2.2–2.5, basidia 4-sporigera; cheilocystidia 24–52 × 2–5 μm, lageniformia vel filiformia; pileipellis trichoderma ex cellulis coralloideis constans pigmentum nullum; fibulae abundantes.

Ad lignum putridum *Pseudotsugae menziesii*.

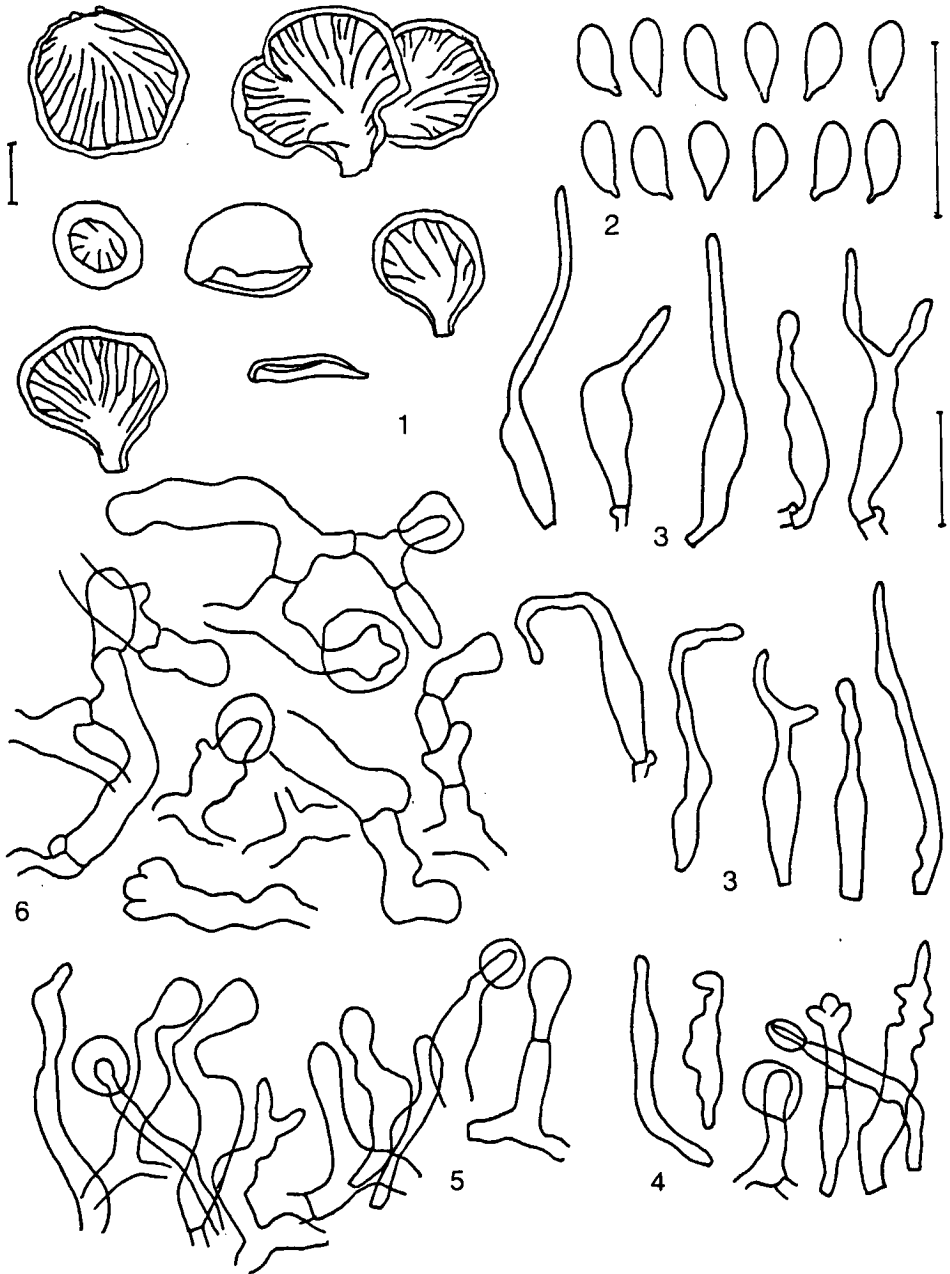
Holotypus: *M.T. Veerkamp s.n.*, 31.X.1988, Apeldoorn, prov. Gelderland, Netherlands (L).

Basidiocarps gregarious, 3–8 mm broad, cupulate when young, then pleurotoid with flabelliform to spatulate or circular shape, with strongly involute margin, not hygrophanous, not translucently striate, white, opaque, entirely pruinose to subtomentose (lens). Lamellae, L = 8–12, l = 0–5, well-developed, subventricose, white with concolorous, entire edge. Stipe lacking or rudimentary in young stages only, white, pruinose. Context thin, white. Smell none. Taste not tried.

Spores 5.5–7.0 × 2.5–3.0 μm, Q = 2.2–2.5(–2.9), average Q = 2.3, oblong to subcylindrical or narrowly clavate, attenuated towards base, with pronounced hilar appendage. Basidia 20–25 × 4.5–6 μm, 4-spored, clamped. Subhymenium densely ramose, made up of very narrow, branched hyphae. Lamella edge heterogeneous. Cheilocystidia abundant, but always mixed with basidia, 24–52 × 2–5 μm, versiform, lageniform with short to long, 1–3 μm wide neck, or filiform to more or less coralloid especially towards margin of pileus, thin-walled. Hymenophoral trama subregular, made up of 1.5–6.5 μm wide, somewhat inflated hyphae with thin or slightly thickened, refringent walls. Pileipellis a trichoderm of irregular, coralloid elements, 2–8 μm wide, with irregular, often lobed or subcapitate to vesiculose apex, sometimes with hyaline, apical slime-cap. Clamp-connections abundant.

*Habitat.* On decaying stump of *Pseudotsuga menziesii*.

*Collections examined.* NETHERLANDS: prov. Gelderland, Apeldoorn, Uchelen, forest reserve 'Het Leeste', 31 Oct. 1988, *M.T. Veerkamp s.n.* (holotype, L); same locality, 20 Oct. 1989, *M.T. Veerkamp s.n.* (L).



Figs. 1–6. *Marasmiellus lateralis*. 1. Basidiocarps; 2. spores; 3. cheilocystidia (middle of edge); 4. cheilocystidia (near margin of pileus); 5. pileipellis in radial view; 6. pileipellis in scalp. — Scale bar with basidiocarps 1 mm, with microscopic characteristics 10  $\mu$ m.

Thus far *Marasmiellus lateralis* is the only European representative of the genus with a sessile, pleurotoid basidiocarp. In the monograph of Singer (1973) it keys out in sect. *Marasmiellus* on account of the pleurotoid habit and lack of a distinct gelatinized zone in the pileitrama. The oblong spores and pigmentless basidiocarps places our species in subsect. *Inodermini*. The practically absent stipe leaves only three Central and South American species that are similar to our species.

*Marasmiellus gossypinulus* Sing. is very close, but differs by a lobate pileus, broader spores ( $6.0\text{--}8.3 \times 3.0\text{--}5.0 \mu\text{m}$ ,  $Q = 1.7\text{--}2.0$ ), and very inconspicuous, scattered, basidiomorphous, or rarely diverticulate cheilocystidia. It grows on wood in Argentina and Chile.

*Marasmiellus concolor* (Berk. & Curt.) Sing. has very similar spores ( $5.0\text{--}7.0 \times 2.5\text{--}3.3 \mu\text{m}$ ), but lacks cheilocystidia and has a strongly developed *Rameales*-structure in the pileipellis. It is known only from the type-locality in tropical forest in Cuba, growing on dicotyledonous wood. Pegler (1983) studied the same collection, with the following data: spores  $6.5\text{--}7.5 \times 3.7\text{--}4.5 \mu\text{m}$ ,  $Q = 1.7$ , and lamella edge sterile with cheilocystidia  $15\text{--}22 \times 4\text{--}5 \mu\text{m}$ , clavate to ventricose, irregularly nodulose-diverticulate at apex.

*Marasmiellus microscopicus* (Speg.) Sing. described from Paraguay, has smaller, ellipsoid spores ( $4.8\text{--}5.5 \times 3.5 \mu\text{m}$ ), relatively broad, crowded lamellae, glabrous pileus, and cheilocystidia are absent.

#### ***Marasmiellus trabutii* var. *longisporus* Bas & Noordel., var. nov. — Figs. 7–10**

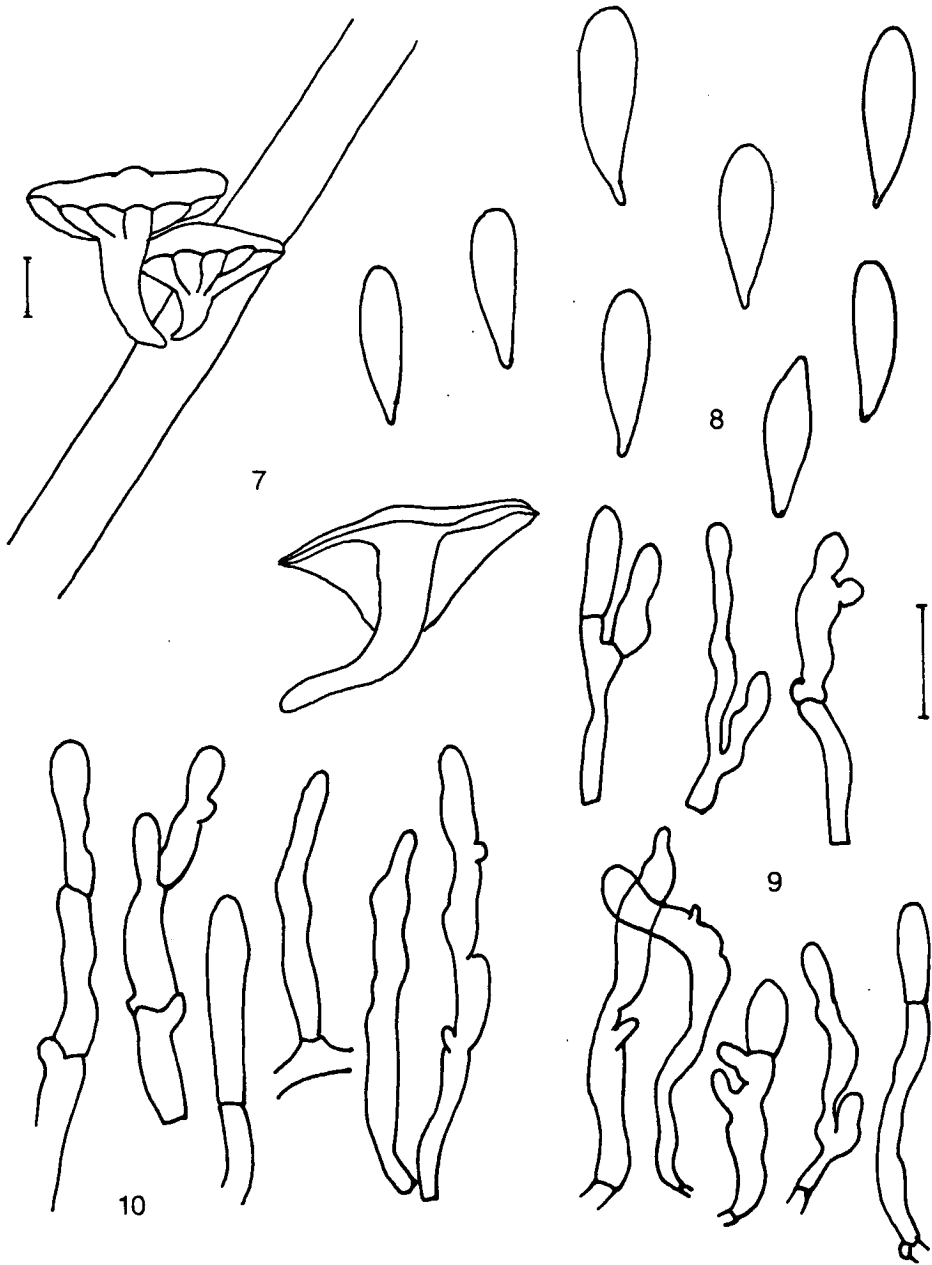
A varietate typica differt sporis longioribus ( $15.0\text{--}24.5 \times 4.5\text{--}7.0 \mu\text{m}$ ,  $Q = 2.6\text{--}6.4$ ) et ad folia *Ammophilae arenariae* crescens.

Holotypus: *E.J. Weeda s.n.*, 26.X.1988, Zandvoort, Netherlands (L).

Pileus 8–14 mm, plano-convex at first, soon becoming somewhat irregularly flattened with small umbo, not hygrophanous, not translucently striate, pale isabella, white towards margin, very minutely pale brown squamulose under lens, somewhat lubricious when moist. Lamellae,  $L = 15\text{--}17$ ,  $l = 1\text{--}3$ , entire lamellae sometimes forked and somewhat undulating, lamellulae strongly anastomosing, broadly adnate to subdecurrent, rather broadly triangular, up to 3.5 mm broad, very pale isabella with concolorous, entire or subpruinose (lens) edge. Stipe  $4\text{--}8 \times 1\text{--}1.5$  mm, rather strongly tapering downwards, curved, whitish at apex, bluish grey in the middle, dark grey-brown below, sparsely minutely pruinose to subpubescent (lens) on fibrillose background, concolorous, tomentose at base. Smell indistinct. Taste unknown.

Spores  $15.0\text{--}24.5 \times 4.5\text{--}7.0 \mu\text{m}$ ,  $Q = 2.6\text{--}6.4$ , average  $Q = 3.5$ , fusiform, clavate or cylindrical. Basidia 4-spored, clamped. Lamella edge sterile. Cheilocystidia  $30\text{--}70 \times 4\text{--}8 \mu\text{m}$ , subcylindrical to irregularly flexuose with undulating outline, thin-walled, clamped. Hymenophoral trama irregular, gelatinized, made up of undulating, subcylindrical hyphae,  $2\text{--}11 \mu\text{m}$  wide. Pileipellis a cutis with distinct *Rameales*-structure. Subpellis and pileitrama distinctly gelatinized, subregular, made up of cylindrical to inflated hyphae,  $3\text{--}15 \mu\text{m}$  wide, with encrusted walls in subpellis. Caulocystidia abundant, irregularly flexuose to coralloid,  $15\text{--}70 \times 3\text{--}8 \mu\text{m}$ . Clamp-connections abundant.

On dead leaf-sheaths of *Ammophila arenaria* (L.) Link in primary coastal dunes.



Figs. 7–10. *Marasmiellus trabutii* var. *longisporus*. 7. Basidiocarps; 8. spores; 9. cheilocystidia; 10. caulocystidia. — Scale bar with basidiocarps 1 mm, with microscopic characteristics 10  $\mu$ m.

*Collections examined.* NETHERLANDS: prov. Noord-Holland, Zandvoort, 26 Oct. 1988, *E.J. Weeda s.n.* (holotype, L).

Macroscopically the collection described above is perfectly similar to *Marasmiellus trabutii* var. *trabutii*, as described by Noordeloos (1975) and Honrubia (1984). The only difference microscopically is formed by the very long spores, which, nevertheless, are also born on 4-spored basidia. Also the habitat is different, as in western Europe, *M. trabutii* var. *trabutii* is only found on *Juncus maritimus* in western Europe. Therefore it was decided to describe the present collection as a taxon in its own right on the level of variety.

#### ACKNOWLEDGEMENTS

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