

HEMIMYCENA SUBGLOBISPORA, SPEC. NOV., AND ARRHENIA
ACEROSA VAR. TENELLA, COMB. NOV., FROM WETLANDS
IN SOUTHERN NORWAY

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Hemimycena subglobispora, found on *Phragmites* in a marsh, is described as a new species, and the new combination *Arrhenia acerosa* var. *tenella* is proposed together with a redescription of the variety.

The agarics occurring in wetland areas have not been given particularly great attention by mycologists. A survey carried out in the County of Vestfold in southern Norway revealed two new species. *Mycena oligophylla* was proposed by Aronsen & Maas Geesteranus (1990). *Hemimycena subglobispora* is another new species from the same area.

The 2-spored variety of *Arrhenia acerosa* (Fr.) Kühner, also found in wetlands, is redescribed from Norwegian material under the name *Arrhenia acerosa* var. *tenella*, comb. nov.

***Hemimycena subglobispora* Aronsen, spec. nov.—Figs. 1–6**

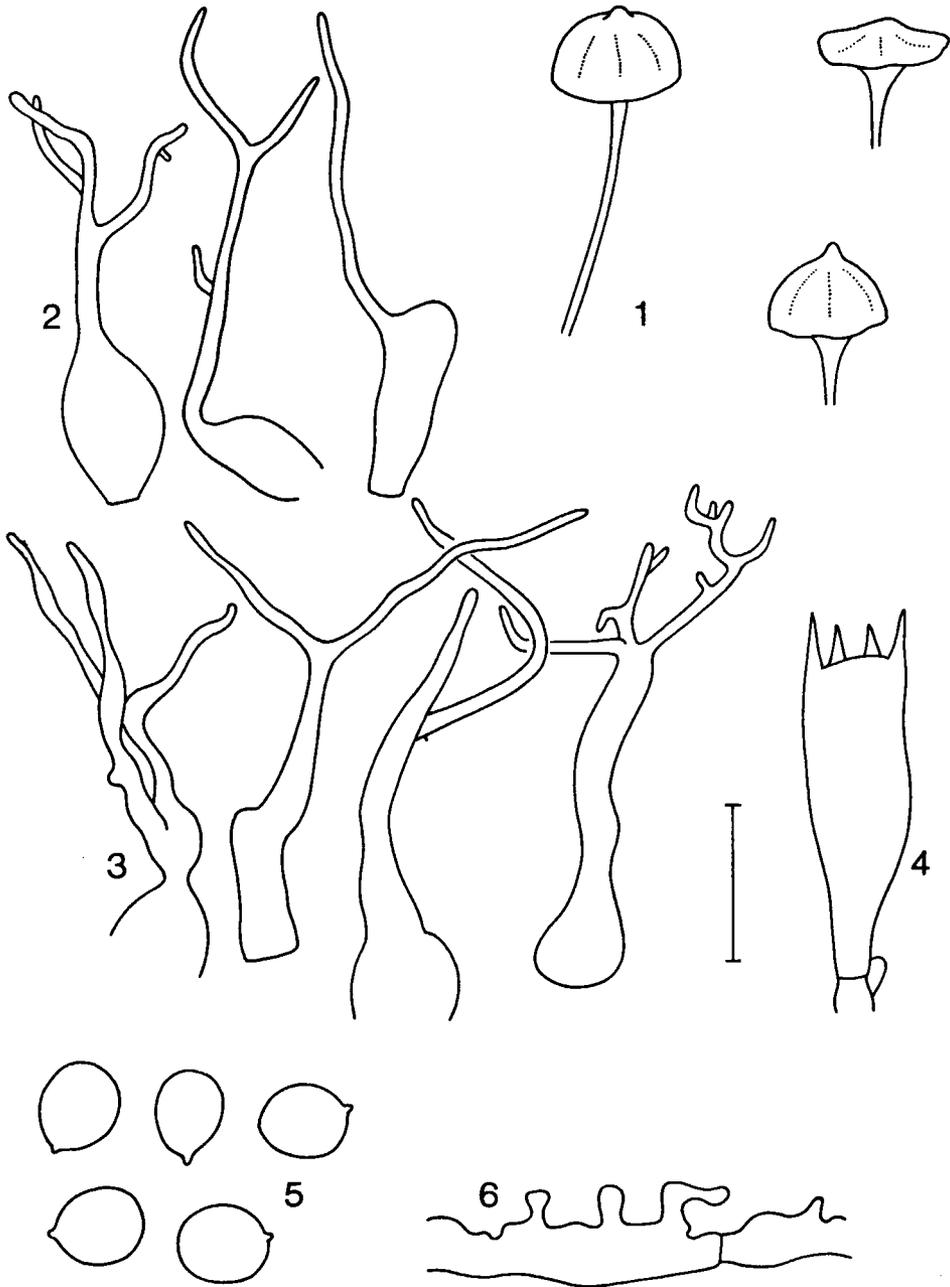
Basidiomata dispersa vel subcongregata. Pileus 1–5 mm latus, initio semiglobosus vel convexus, deinde plano-convexus, centro papillatus vel interdum depressus, translucide striatus, interdum sulcatus, pruinosis, albus. Caro pertenuis, alba odore indistincto. Lamellae 4–7 stipitem attingentes, latae, decurrentes, albae. Stipes 8–11(–15) mm longus, filiformis, pubescens, albus. Sporae 5–6 × 4.5–5.8 µm, subglobosae, inamyloideae. Basidia 18–25 × 6–8 µm, clavata, 4(–2)-spora, fibulata. Cheilocystidia pleurocystidiaque nulla. Caulocystidia et pileocystidia ventricosa apice tenui. Pileipellis hyphae diverticulatae, 3–5 µm latae. Ad culmos *Phragmitis*.

Holotypus: 'Norway: Vestfold, Tønsberg, Kjelle, 9 October 1988, Aronsen M 43 / 88' (O).

Pileus 1–5 mm across, hemispherical to convex, with age plano-convex, mostly papillate, but sometimes centrally depressed or at least depressed around papilla, with margin long remaining incurved, translucent-striate, more or less sulcate, pruinose, white. Flesh very thin, white, with age almost translucent; smell not distinctive. Lamellae very distant, 4–7 reaching stipe, broad, with concave edge, sometimes veined, not always fully developed, occasionally one or two forked, broadly attached to decurrent, white. Stipe 8–11(–15) mm long, filiform, usually somewhat curved, equal, pubescent particularly in lower parts, at base without fibrils, insititious, white or hyaline, with age sometimes yellowish from base upwards.

Spores 5–6 × 4.5–5.8 µm, subglobose, smooth, hyaline, inamyloid, acyanophilous. Basidia 18–25 × 6–8 µm, clavate, with 4 (occasionally 2) up to 5 µm long sterigmata, clamped. Cheilo- and pleurocystidia absent. Hyphae of the pileipellis diverticulate, thin-walled, 3–5 µm wide. Pileocystidia abundant, with a swollen base and long, narrow, more or less flexuose and branched neck, thin-walled, hyaline; body 10–15 × 4–8.5 µm; neck up

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Figs. 1–6. *Hemimycena subglobispora* (holotype). — 1. Basidiocarp, $\times 4$. — 2. Pileocystidia. — 3. Caulocystidia. — 4. Basidium. — 5. Spores. — 6. Hypha of pileipellis. (Bar = 10 μm .)

to 30 μm long and 1–2.5 μm wide. Stipitipellis of 5–15 μm wide, diverticulate hyphae. Caulocystidia similar to pileocystidia, abundant, some branched or forked at apex, others just tapering towards a more or less acute and flexuose, simple neck, up to 55 μm long. Clamp-connections present at base of basidia and scattered elsewhere. Hymenophoral trama yellowish in Melzer's reagent.

H a b i t a t.—Solitary or 3–4 specimens together in clusters on decaying, water-soaked stems of *Phragmites communis*.

C o l l e c t i o n s e x a m i n e d.—NORWAY: Vestfold, Tønsberg, Kjelle, 9 Oct. 1988, *Aronsen M 43/88* (type, O); 12 Oct. 1988, *Aronsen A 77/88*; 17 July 1989, *Aronsen A 4/89*, 7 Oct. 1989, *Aronsen A 42/89*; 3 July 1990 *Aronsen A 1/90*. (All collections, except type, in herb. Aronsen.)

Hemimycena subglobispora is distinguished from the other members of the genus by the subglobose spores and the conspicuous cystidia on pileus and stipe. Similar cystidia have been described only for *H. substellata* Kühner by Redhead (1982). That species, however, has narrower spores: 5–7.5 \times 2.7–4 μm in the type (Kühner & Valla, 1972) and 5.5–7 \times 3.3–4.2 μm according to Redhead. Furthermore, the recorded finds of *H. substellata* are all made on water-soaked, mainly decorticated wood.

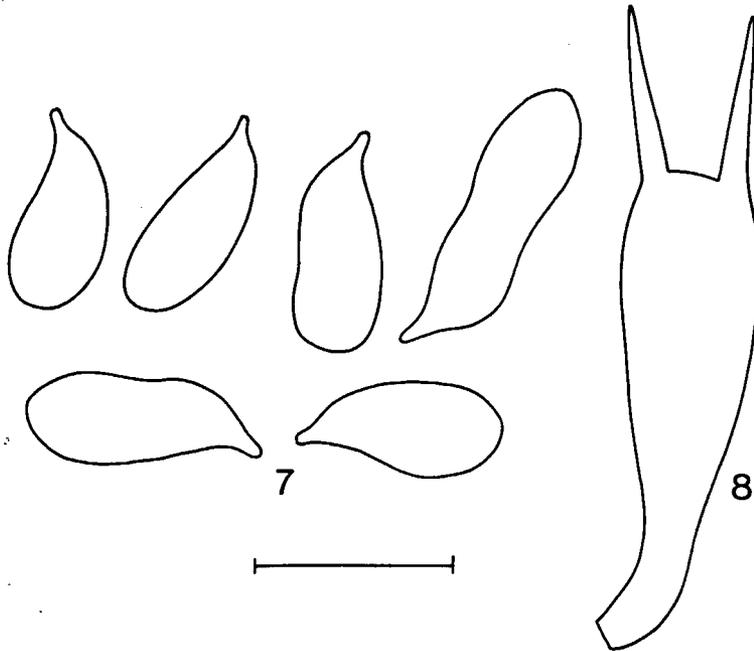
Omphalia stellata Fr. sensu Bresadola (1928) has subglobose spores of the same size as the present material, but the pileus and stipe of that species are indirectly described as glabrous. *Hemimycena brevispora* Pegler, described from Kenya (Pegler, 1977), has similar spores, but quite different cystidia.

Hemimycena subglobispora matches the description of *Omphalia vestita* Peck rather well, a species Peck (1907) reported from Ontario, Canada, growing on decaying vegetable matter in damp places. For nomenclatural reasons Smith (1947: 95) gave it the new name *Mycena subvestita*. Peck's and Smith's descriptions are, however, very brief, the subglobose spores, 4–5 μm in diameter, being the only critical feature for recognition of the species. Redhead (1986) re-examined the type and found it to be in very bad condition, consisting of two stipes lacking pilei, some basal mycelium, insect frass and minute flakes of fractured hymenium from two mixed taxa. The main constituent of the type was found to represent *Marasmiellus tricolor* (Alb. & Schw.: Fr.) Sing. On this basis Redhead dismissed *O. vestita* as a synonym of *M. tricolor*. Redhead also found broadly ellipsoid to subglobose spores, 5–7.2 \times 4–6.5 μm among the minute flakes of hymenia, but he excluded them from the type as foreign elements, 'although they were possibly the source of the reported subglobose spores of a smaller size'.

The identity of the second component of Peck's 'species' can probably only be made sufficiently clear by someone finding it again in the same geographical region. But even if it would turn out to be conspecific with the species described here, Redhead's typification has to be followed and prevents the use of the name *Mycena subvestita* for the present species.

***Arrhenia acerosa* var. *tenella* (Kühner) Aronsen, *comb. nov.*—Figs. 7, 8**

Pleurotellus acerosus var. *tenellus* Kühner in Bull. Soc. Nat. Oyonnax 8: 76. 1954 (basionym). — *Phaeotellus acerosus* var. *tenellus* Kühner & Lamoure in Botanique 55: 30. 1972 (not validly published, no reference to basionym).



Figs. 7, 8. *Arrhenia acerosa* var. *tenella*. — 7. Spores. — 8. Basidium. (Both figs. from Aronsen A39/87. Bar = 10 μ m.)

Pileus 4–8 mm, pleurotoid, conchate or spatulate, auriculate or more or less dimidiate, translucent-striate, sometimes sulcate, with even or uneven, undulating, usually lobed margin, hygrophanous, pale grey-brown or pale brown, sometimes paler towards margin, sessile eccentrically or laterally attached, whitish pubescent near the attachment. Lamellae mostly well developed, moderately spaced to subdistant, rather thick and broad (1 mm), occasionally forked, with lamellulae, adnate, grey or grey-beige. Flesh thin to very thin, concolorous with pileus; smell not distinct.

Spores 8.5–12.5(–17.0) \times 4.0–5.5 μ m, variously shaped, ovoid, ellipsoid to cylindric, often constricted, smooth, hyaline, inamyloid. Largest spores from 1-spored basidia, often deformed and not released from sterigma. Basidia 23–34 \times 6–8 μ m with sterigmata up to 10 μ m long, clavate, (1- or) 2-spored, clamped. Cystidia absent. Tramal hyphae loosely interwoven, filamentous, 3–10 μ m wide, thin-walled, clamped, hyaline or finely encrusted with grey pigments.

Habitat.—Solitarily on standing, decaying stems of *Juncus effusus* in a rather wet area.

Collections examined.—NORWAY: Vestfold, Tjøme, Moutmarka, 15 Aug. 1987, A. Aronsen A39/87; 12 Sept. 1987, A. Aronsen A54/87; 13 Aug. 1988, A. Aronsen A45/88. (All collections in herb. Aronsen.)

Arrhenia acerosa is a well-known species in Europe and widely distributed in Norway, north up to Svalbard (Høiland, 1976; Gulden & al., 1988). Typical *A. acerosa* is 4-spored, with more or less subglobose to ellipsoid spores, $5-9 \times 4.2-5.5 \mu\text{m}$ (Redhead, 1984), $(4.5-5.5-8.5(-11) \times 3-6.5 \mu\text{m}$ (Høiland, 1976). It has been found on a number of different substrata (see Redhead, 1984; Høiland, 1976), but apparently not on stems of *Juncus*.

Over the years it has been placed in several genera, e.g. *Pleurotellus* by Konrad & Maublanc (1937), *Leptoglossum* by Moser (1978), *Phaeotellus* by Kühner & Lamoure (1972), and *Arrhenia* by Kühner (1980). Lange (1981) treated it in *Omphalina* because of the well-developed lamellae. *Arrhenia* is here preferred because of the shape of the pileus, the absence of stipe and lateral attachment. A stipe may, however, occasionally be present, centrally or eccentrically to laterally attached, in both the 2- and 4-spored form.

Arrhenia acerosa var. *tenella* is known from Svalbard and from alpine to subalpine localities in France, Germany, and Switzerland (Gulden & al., 1988), but is also reported from the lowlands (Kühner & Romagnesi, 1954).

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