

MYCENA PSEUDOPICTA (J.E. LANGE) KÜHNER, A RARE GRAMINICOLOUS SPECIES GROWING ON POACEAE

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To August Rocabruna in recognition of his great contribution to the Catalanian Mycology

ABSTRACT. *Mycena pseudopicta* (J.E. Lange) Kühner, a rare graminicolous species growing on Poaceae. *Mycena pseudopicta*, a rare species from section *Cinerellae* Singer ex Maas Geest., occurring in Spain, is described and illustrated macro- and microscopically. It is characterized by its strongly decurrent gills, its cheilocystidia with fairly long and coarse excrescences and its graminicolous habitat.

Key words: Agaricales s.l., Tricholomataceae, *Mycena pseudopicta*, taxonomy, Spanish mycobiota.

RESUMEN. *Mycena pseudopicta* (J.E. Lange) Kühner, una rara especie graminícola creciendo sobre Poaceae. *Mycena pseudopicta*, una rara especie de la sección *Cinerellae* Singer ex Maas Geest., encontrada en España, se describe e ilustra macro y microscópicamente. Esta especie se caracteriza por sus láminas muy decurrentes, por sus queilocistidios con largas y abundantes diverticulaciones y por su hábitat sobre graminéas en descomposición.

INTRODUCTION

Continuing with our mycological studies on Iberian mediterranean areas, we describe in this short note a rare species of *Mycena* fruiting abundantly, especially at the end of winter after the rainfalls, on roots and dried leaves of several species of *Poaceae*. Basidiocarps are efimerous and depend on the environmental moisture and extreme cold temperatures. The genus *Mycena* shows a high diversity in the Iberian Peninsula, which has enabled the recent publication of a series of papers dealing with the description of several new species, and the report of a number of rare species in different localities of Spain. Among these, let us mention the following: ESTEVE-RAVENTÓS & VILLARREAL (1997), ESTEVE-RAVENTÓS & ORTEGA (1999), MORENO & HEYKOOOP (1998, 2000), MORENO *et al.* (1999), VILLARREAL & ESTEVE-RAVENTÓS (2000), VILLARREAL *et al.* (1998, 1999). The monography of MAAS GEESTERANUS (1992) is, to date, a reference work for the identification of the European species of *Mycena*. Complementary books are those of MALENÇON & BERTAULT (1975), especially for mediterranean areas, SMITH (1947), KÜHNER (1938) and MAAS GEESTERANUS & MEIJER (1997). The material is kept at the herbarium of the University of Alcalá (AH).

Mycena pseudopicta (J.E. Lange) Kühner, *Encycl. Myco.* 10: 363 (1938) Figs. 1-14
 = *Omphalia pseudopicta* J.E. Lange, *Dansk. bot. Ark.* 6: 15 (1930)

Basidiomata fasciculate to gregarious. Pileus 0.5-1 cm diam., convex to conical, with an obtuse umbo, hygrophanous, rugulose, dark greyish when young, paler greyish at maturity, subviscid but not gelatinous. Lamellae 15-24 reaching the stipe, arcuate with a decurrent tooth to strongly decurrent, lamellulae present, whitish. Stipe 15-55 × 1-2 mm, cylindrical, fragile, pruinose at the apex, concolorous to pileus, paler towards the apex and whitish at the base, subviscid but not gelatinous. Odour not distinctive to slightly of raw potatoes. Taste not distinctive.

Spores 8-12-(12.5) × (4)-5-6 µm, cylindrical to ellipsoid, hyaline, smooth, amyloid (Figs. 5-7). Basidia 2-spored (Figs. 3-4), 20-30 × 6-7 µm, sterigmata up to 6 µm in length. Cheilocystidia 32-62 ×

Table I. Differences between *M. pseudopicta*, *M. cinerella*, *M. concolor* and *M. subconcolor*.

	Lamellae	Basidia	Lamellar-edge	Pileipellis	Habitat
<i>Mycena pseudopicta</i>	Ascending or arcuate, long decurrent	2-spored	Homogeneous	Not embedded in gelatinous matter	On vegetable debris of different <i>Poaceae</i> .
<i>Mycena cinerella</i>	Ascending or arcuate, decurrent with a tooth	4-spored and 2-spored	homogeneous	Somewhat embedded in gelatinous matter	Terrestrial among moss, fallen leaves of deciduous trees, and needles of conifers
<i>Mycena concolor</i>	Ascending or arcuate, subhorizontal	4-spored	Heterogeneous	Readily gelatinized	Growing in association with <i>Sphagnum</i> or peat
<i>Mycena subconcolor</i>	Subhorizontal, subdecurrent	4-spored	Heterogeneous	Not embedded in gelatinous matter	Terrestrial

6-11 μm , forming a sterile band (lamellar edge homogeneous), clavate, covered with numerous, unevenly spaced, rather coarse, simple to furcate, curved excrescences $4\text{-}25 \times 2\text{-}4 \mu\text{m}$ (Figs. 8-12). Pleurocystidia absent. Hymenophoral trama dextrinoid. Hyphae of the pileipellis 5-7 μm wide, covered with simple and more or less short excrescences $3\text{-}6 \times 1.5\text{-}3 \mu\text{m}$ (Figs. 1-2). Hyphae of the cortical layer of the stipe 3-5 μm wide, diverticulate, excrescences $2\text{-}5 \times 1\text{-}3 \mu\text{m}$, terminal cells (caulocystidia) abundant at the apex, 13-14 μm wide, filiform to clavate and diverticulate. Clamp connections absent.

HABITAT. On root rests and basal leaves of *Dactylis glomerata* subsp. *hispanica* (Roth) Nyman.

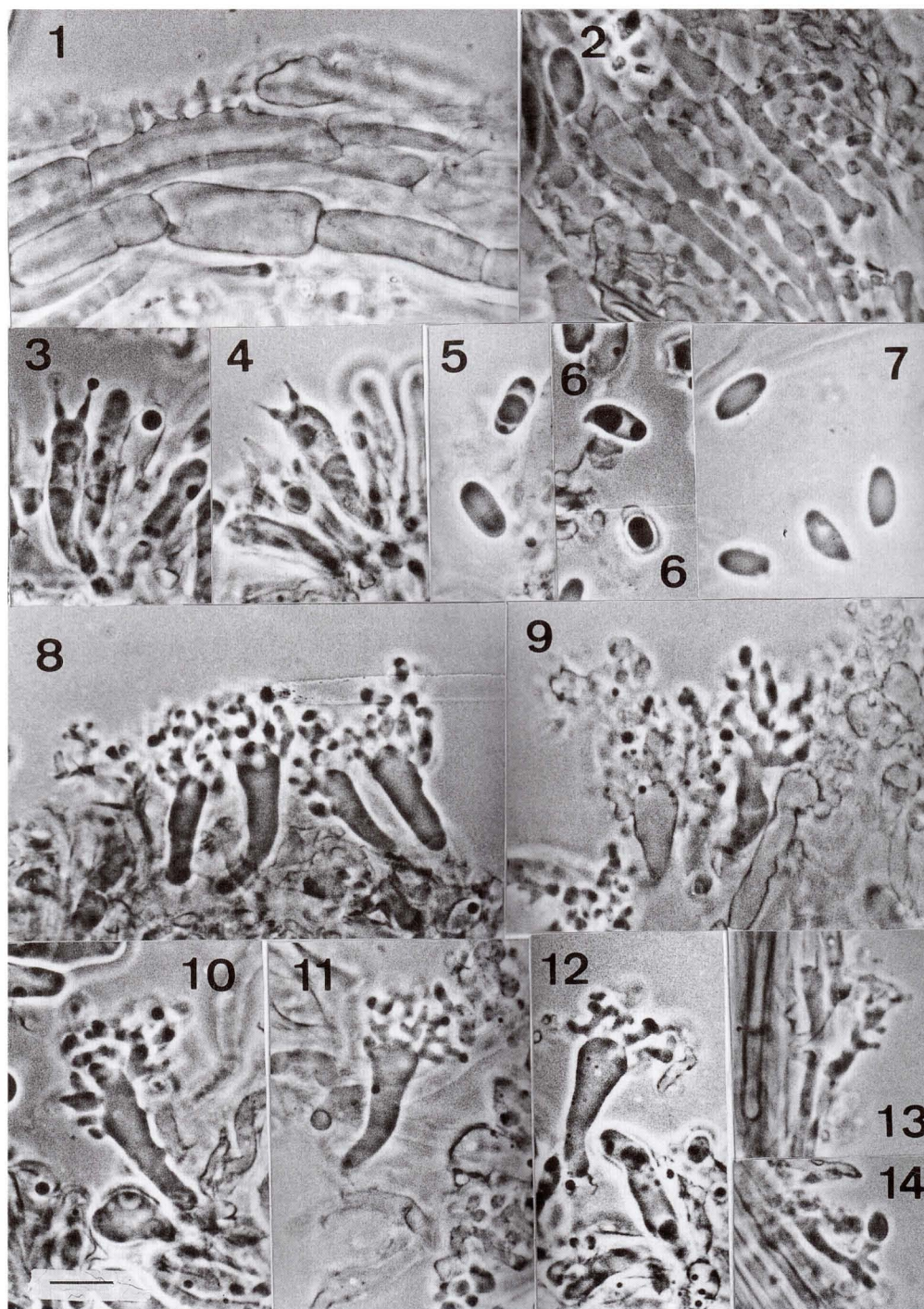
MATERIAL EXAMINED. SPAIN: Madrid, Alcalá de Henares, campus de la Facultad de Biología, on roots and leaves of *Dactylis glomerata* subsp. *hispanica*, 28-1-2002, leg. G. Moreno and J. Rejos, AH 19372.- Campus de la Facultad de Biología, on roots and leaves of *D. glomerata* subsp. *hispanica*, 10-11-1988, leg. J. Álvarez and C. Bartolomé, AH 11613.

DISCUSSION. *M. pseudopicta* (J.E. Lange) Kühner represents a rare species belonging to section *Cinerellae* Singer ex Maas Geest. It is characterized by the greyish colours of both the pileus and stipe, its strongly decurrent gills, its coarsely diverticulate cheilocystidia, the absence of pleurocystidia and its fructification on graminicolous debris. There are further species of *Mycena* with decurrent lamellae, belonging to other sections. One such section is *Fuliginellae* (A.H. Sm. ex Singer) Maas Geest., including species like *M. geesteranii* Heykoop, Esteve-Rav. et G. Moreno (HEYKOOP *et al.*, 1992), which differs from section *Cinerellae* because of the lamellar-edge which is separable as an elastic-tough thread. Another section including species with invariably arcuate lamellae (VILLARREAL *et al.*, 1999) is *Insignes* Maas Geest. emend. Villarreal, Heykoop et Maas Geest. It, nevertheless, differs from *Cinerellae* because its members have differently shaped cheilo- and caulocystidia, pileipellis and stiptipellis always gelatinized and different habitat.

Other members of section *Cinerellae* (MAAS GEESTERANUS, 1986), such as *M. concolor* (J.E. Lange) Kühner and *M. subconcolor* A.H. Sm., share some macroscopic similarities with *M. pseudopicta*. *M. concolor*, a species which has been illustrated by EMMETT (1992), differs, however, from *M. pseudopicta* because of its typical fructification in association with *Sphagnum* and its narrower spores. On the other hand, *M. subconcolor* differs from *M. pseudopicta* in having subhorizontal lamellae and quite different cheilocystidia.

Another species which seems close to *M. pseudopicta* is *M. cinerella*. Both share the presence of cheilocystidia of the "cinerellae-type". *M. cinerella*, however, differs in having a strong farinaceous odour, less decurrent lamellae and different habitat. The differences between *M. pseudopicta*, *M. cinerella*, *M. concolor* and *M. subconcolor* are tabulated in Table I.

Finally, *M. belliae* (Johnst. in Berk.) P.D. Orton, which belongs to sect. *Calamophilae* Maas Geest., because of its decurrent lamellae, pruinose stipe and graminicolous habitat on dead culms of



Figs. 1-14. *Mycena pseudopicta* (J.E. Lange) Kühner (AH 19372). **1-2.** Pileipellis; **3-4.** bisporic basidia; **5-7.** spores; **8.** cheilocystidia; **9-12.** detail of cheilocystidia; **13-14.** caulocystidia at the apex of stipe.

Phragmites australis shows some macroscopic similarities with *M. pseudopicta*. It, however, differs by its reddish brown pileus, completely different cheilocystidia, gelatinized pileipellis and stiptipellis and its stipe arising from a mycelial patch.

M. pseudopicta is known from Denmark (MAAS GEESTERANUS, 1986), Iceland (LANGE, 1949), Greenland (LANGE, 1955; probably doubtful) and Spain. In our country it has been reported by MENDAZA & DÍAZ (1987), MORENO *et al.* (1990), ANDRÉS-RODRÍGUEZ *et al.* (1990), ROBICH (1994), GÓMEZ-BUSUTIL *et al.* (1996) and VILA & LLIMONA (1998), on different gramineae or woody rests but generally in open areas of grasslands. The records of MALENÇON & BERTAULT (1975) must be considered as doubtful, since the gills were reported to be “largement adnées-subdécurrentes mais non triangulaires”. Reexamination of their material must be carried out to confirm their identity.

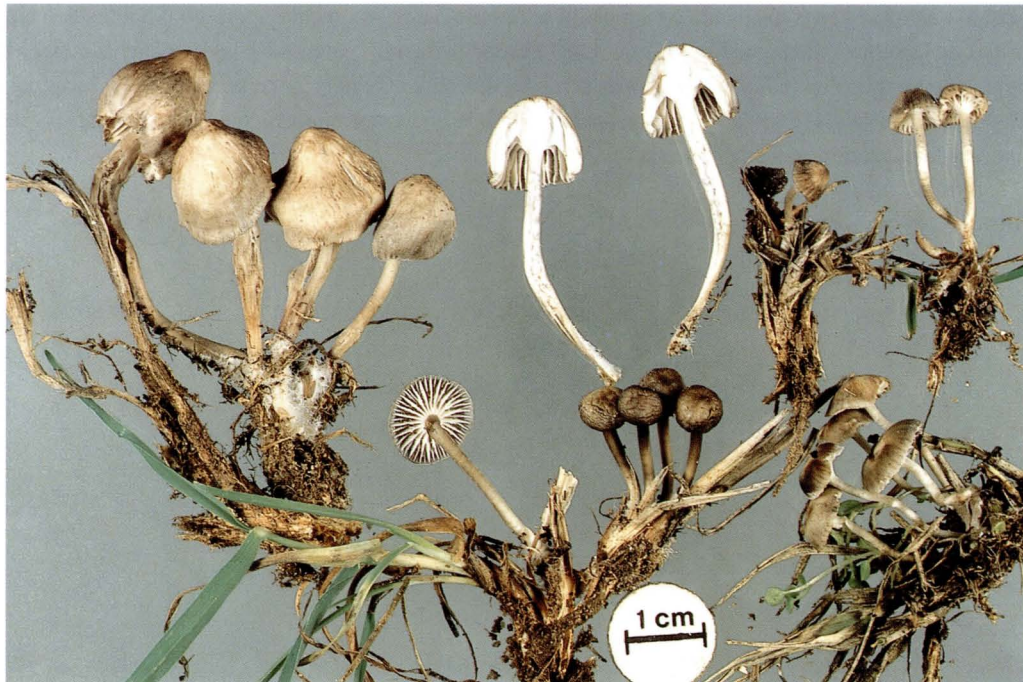
ACKNOWLEDGMENTS

This work has been partly financed by the Research Project “Flora Micológica Ibérica IV” DGICYT PB98-0538-C04-02, granted by the “Dirección General de Investigación Científica y Técnica (Ministerio de Educación y Ciencia)”.

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