roseae, crassitunicatae. *Basidia* 15–23 × 5–7 µm, clavata, 4-sporigera. *Acies lamellarum* fertilis; cystidia nulla. *Trama* hymenophoralis regularis. *Cuticula* pilei ex hyphis repentibus, 2–4 µm latae. *Caulocystidia* hyphoidea, 22–35 × 4–5 µm, tenuitunicata.

In lignis defossis, Guthigar (Sullia, S.K.), Karnataka, India, 14 Sept. 1984, K. B. Purushothama, Herb. MUBL 3060, holotypus.

Pileus 3–3·8 cm in diam, plano-convex becoming depressed where the excentric stipe originates; surface orange white (6A2), becoming dull white, glabrous; margin entire, inrolled. *Lamellae* decurrent, thin, orange white (5A2), crowded; with lamellulae. *Stipe* excentric, 1–1·5 × 0·2–0·3 cm, attenuate towards base, hollow; surface white, glabrous. *Spore print* pinkish white (8A2). *Basidiospores* isodiametric, 5–6 × 4·5 µm, Q = 1·2–1·5, regularly faceted, pinkish, inamyloid, with 2-layered wall and prominent refractive guttules. *Basidia* clavate, 15–23 × 5–7 µm, tetrasporic; sterigmata slender, 2–3 µm long. *Lamella-edge* fertile. *Cheilocystidia* and *pleurocystidia* absent. *Hymenophoral trama* regular; hyphae 3–11 µm diam, thin-walled: subhymenium cellular. *Context* thin, up to 2 mm thick, white; hyphae 2–12 µm diam. *Pileus surface* a cutis, hyphae 2–4 µm diam, interwoven, not incrusted, *Stipe surface* hyphae project to form hyphoid caulocystidia, 22–35 × 4–5 µm, thin-walled. *Clamp-connexions* absent.

Additional specimen examined: on buried wood, in group, in Jodpala, Coorg Distr. Karnataka, India, 24 Sept. 1984, K. B. Purushothama, Herb. MUBL No. 3061.

This fungus is placed in the genus *Eccilia* (Fr.) Kummer owing to the presence of decurrent lamellae and relatively large basidiocarps. The basidiocarp and stipe dimensions preclude placement in *Claudopus* Gillet, which comprises a few minute species with pileus generally less than 1 cm in diam and either sessile or with a rudimentary stipe. The excentric stipe and smaller spores differentiate this species from other species of *Eccilia*.

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Coprophilous fungi from Spain: *Klasterskya coronata* sp. nov.

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Coprophilous fungi from Spain: *Klasterskya coronata* sp. nov. *Mycological Research* **92** (1): 113–116 (1989).

Klasterskya coronata sp. nov., collected on horse dung from Girona, Catalonia, Spain, is described and illustrated. *Pyxidiophora crenata* is formally placed in *Klasterskya*.

Key words: *Klasterskya coronata, Klasterskya crenata, Pyxidiophora crenata*, Coprophilous fungi, Spanish ascomycetes.

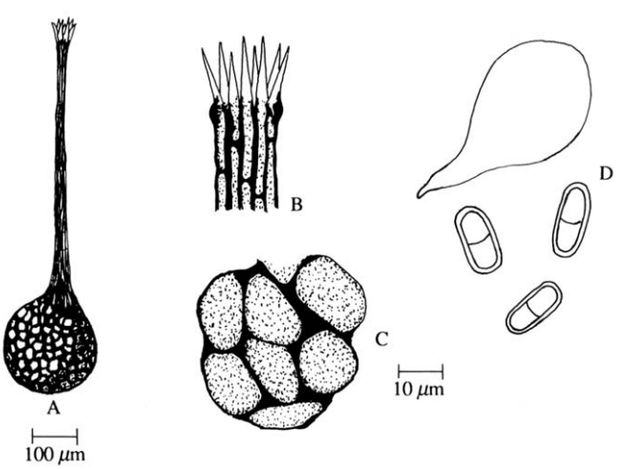
In our current work on coprophilous fungi from Spain we have recently observed flask-shaped dark ascomata on horse dung. On cursory examination they could be ascribed to *Pyxidiophora* Bref. & Tavel, on the basis of neck length and presence of 1-septate hyaline ascospores. However, after a more detailed study and in the light of Minter's contribution of 1983, we are now inclined to believe that *Klasterskya* Petr. is a more correct assignation, especially because of the dark peridium and the characteristic ascospore morphology. The aim of this paper is to present a description of this fungus based on ascomata growing on the natural substrate, as we have failed in its pure culture, and to discuss its taxonomy.

Klasterskya coronata Valldosera & Guarro, sp. nov.
(Figs 1–8)

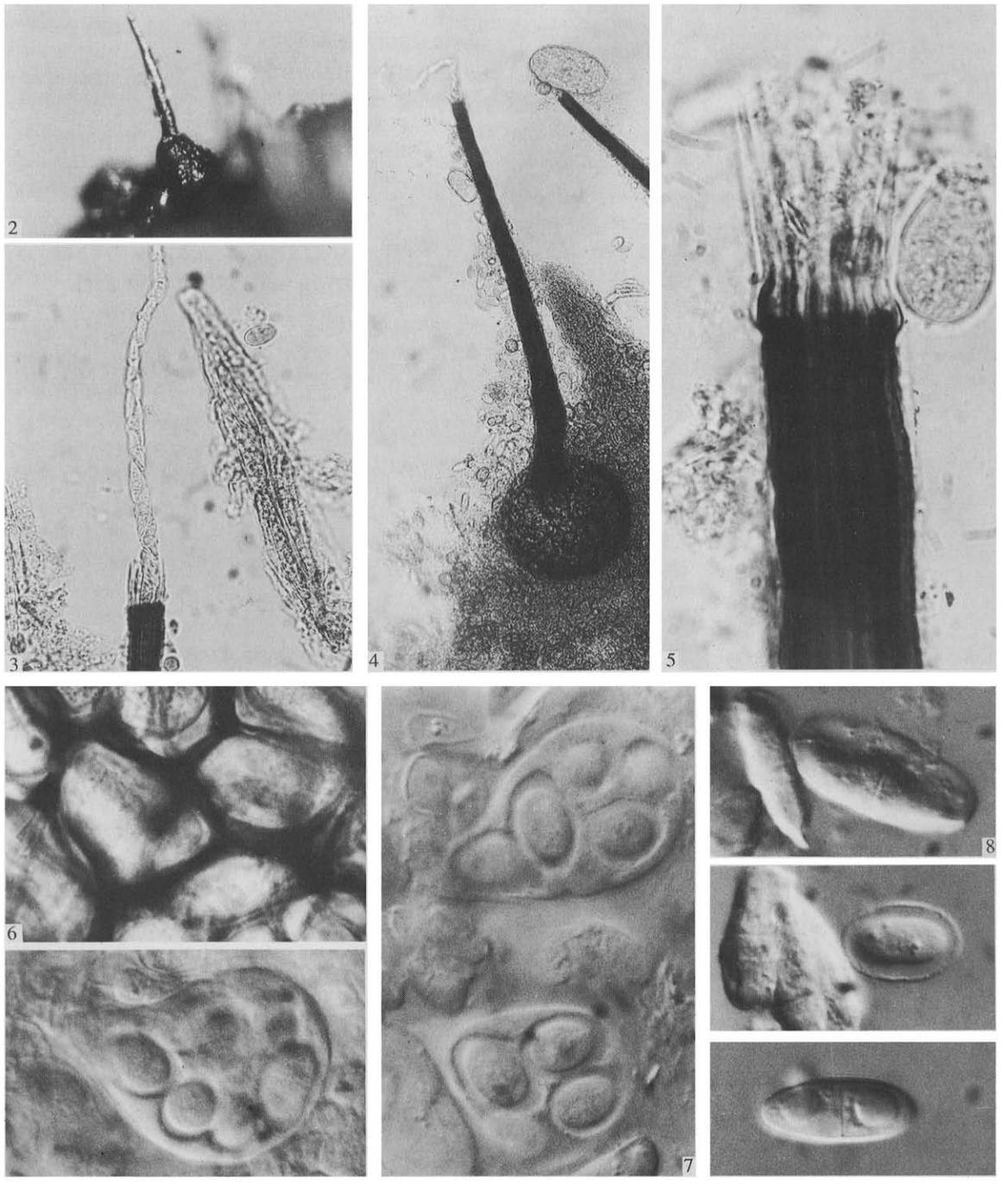
Etym.: Referring the apex of the neck, similar to a crown, *corona* (L).

Ascomata partim immersa et partim superficialia, sine stromate, dispersa ,vel aggregata, subglobosa vel obpyriformia, ostiolata,

Fig. 1. *Klasterskya coronata*. A, Ascoma; B, Upper part of the neck; C, Cells of the peridium; D, Ascus and ascospores.



Figs 2–8. *Klasterskya coronata*. **Fig. 2**. Ascoma on dung, × 51. **Fig. 3**. Long tendril of ascospores from the ostiole, × 400. **Fig. 4**. Ascoma, × 160. **Fig. 5**. Upper part of the neck with fimbriate ostiolar hyphae, × 2000. **Fig. 6**. Cells of peridium, × 2000. **Fig. 7**. Asci, × 2000. **Fig. 8**. Ascospores, × 2000.



140–300 μm lata, brunnea, glabra; peridio membranaceo, pseudoparenchymatoso; cellulae externae complanatae, brunneae, incrassatae, angulosae, 15–20 μm latae; collo 460–720 μm alto, basi 30–60 μm lato, cellulis cylindraceis, atrobrunneis composito, 45–60 × 4·5–5 μm. *Asci* octospori, ovoidei vel lato-clavati, brevistipitati, 20–25 μm diam, evanescentis. *Paraphysibus* nullis. *Ascosporae* ellipticae vel cylindraceae, 1-septatae, hyalinae, 13–17 × 5–6 μm, vagina gelatinosa hyalina.

Holotypus in stercore equi Podioceretanie, Ceretanie, Catalonie, Hispania, 7 June 1986, M. Valldosera, FMR 2108; IMI 318417, isotypus.

Ascomata superficial to slightly immersed at the base, without a stroma, scattered or aggregated into small groups, subglobose to obpyriform, ostiolate, 140–300 μm wide, dark brown, glabrous; peridium membranaceous, pseudoparenchymatous, 2–3 layered, the outer layer consisting of thick-walled (1–3 μm), angular cells, 15–20 μm diam; neck straight

Fig. 9. Ascospores of *Klasterskya acuum*, × 3200. **Fig. 10**. Ascospores of *Pyxidiophora crenata*, × 3200.

460–720 μm long including the fimbriate ostiolar hyphae, composed of parallel cylindrical cells, dark brown, 45–60 × 4·5–5 μm, thick-walled (1·5–2 μm); ostiolar hyphae fimbriate, hyaline to light brown, 14–22 × 3–4 μm with acute apex. *Paraphyses* lacking. *Asci* unitunicate, 8-spored, ovoid to broadly clavate, 20–25 μm diam, shortly stipitate, evanescent, non-amyloid. *Ascospores* elliptical to cylindrical, 1-septate, hyaline, smooth, 13–17 × 5–6 μm, surrounded by a hyaline gelatinous sheath, discharged in gummy masses in a long tendril. Conidia unknown.

Other specimens compared: *Klasterskya acuum* (IMI 96720, IMI 243592, IMI 267095), *Pyxidiophora crenata* (GM 2600, type).

The monotypic genus *Klasterskya* was included in the Sphaeriaceae by Müller & v. Arx (1962, 1973) and recently redisposed in the Ophiostomataceae by Minter (1983) on the basis of similarity with *Ceratocystis* Ell. & Halst. and *Ophiostoma* H. Sydow & Sydow. *K. acuum* (Mout.) Petrak is characterized by ascomata with long necks and darkly pigmented peridia; the ascospores are elliptical to cylindrical, hyaline, 1-septate and with *Hyalorhinocladiella* conidia produced directly on the ascospores (Fig. 9). *Pyxidiophora* is a related genus but easily distinguished from *Klasterskya* by the ascospores which are elongate–clavate with a pointed base devoid of cytoplasm, a gelatinous wall that frequently swells and mostly with a brown body near the apex of the ascospores; the ascospores parallel in the ascus; and the colourless peridia with exception of the neck, while in *Klasterskya* they are dark. Two different anamorphs have been found in *Pyxidiophora*; with holoblastic conidia leaving denticles on the conidiophores produced on the peridial cells (Webster & Hawksworth, 1986) and with *Chalara*-type enteroblastic conidia produced on mycelium or directly from ascospores (Lundqvist, 1980; Blackwell, Perry, Bridges & Moser, 1986). Lundqvist (1980) has placed *Pyxidiophora* and *Mycorhynchidium* Malloch & Cain (1971), a cleistocarpous genus, in the Pyxidiophoraceae G. Arnold *emend.* Lundqvist.

The new species differs from *K. acuum* in ascospore size (15–28 × 5·5–8 μm in *K. acuum*) and the presence of a

gelatinous sheath that entirely surrounds each ascospore. *Pyxidiophora crenata* Barrasa & Moreno (1983), also recovered from dung in Spain, should in our opinion be transferred to *Klasterskya* on the basis of ascus and ascospore morphology (Fig. 10) and because the ascomatal peridium is dark. The ascospores of *Pyxidiophora* are larger than those of *Klasterskya*. They generally exceed 50 μm in length. The following new combination is proposed:

Klasterskya crenata (Barrasa & Moreno) Valldosera & Guarro, comb. nov.

Pyxidiophora crenata Barrasa & Moreno, *Cryptog. Mycol.* **4**: 253 (1983).

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Pleospora eucalypti sp. nov. from Kuwait

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Pleospora eucalypti sp. nov. from Kuwait. *Mycological Research* **92** (1): 116–118 (1989).

Pleospora eucalypti sp. nov. is described and illustrated. This appears to be the first recorded species of *Pleospora* from the bark region of *Eucalyptus*. It is compared with those species isolated from the litter of the host and with species possessing ascospores with predominantly 3–4 septa.

Key words: *Pleospora eucalypti*, *Eucalyptus camaldulensis*, *Phoma*, Arid habitats, Kuwaiti ascomycetes.

During routine examination of plant substrates in Kuwait, the bark of *Eucalyptus camaldulensis* Dehn. revealed a specific fungal colonization, in that one characteristic species dominated the species composition of this substrate. In this geographical region with its desert conditions, plant surfaces, in particular the bark of *Eucalyptus*, are exposed to extreme conditions of solar radiation and desiccation by the dry hot air currents which prevail. Species isolated from such an ecological niche may be predictably different from related species under less environmental stress.

Pleospora eucalypti Mulder, sp. nov. (Fig. 1)

Pseudothecia in partim submersa, erumpentia matura, singularia vel aggregata, nigro-brunnea, sphaerica, interdum collapsa apicis, 260–395 μm (340–395 μm). *Asci* bitunicati, octospori, cylindrici, 70–102 μm longi, 15–21 μm lati, pedicelli 15 μm longi, 6–7 μm lati. *Ascosporae* muriformes, plerumque biseriatae, constrictae septatis, coloratae vel brunneae, 3–4 septatae (plerumque 3), septa obliqua plerumque centralis cellulis, levitae, 14–18 μm longae, 6–8 μm latae. *Coloniae* in agaro cinereae vel olivaceo-brunneae, mycelium aerium floccosum. *Pycnidia* submersa vel superficialia, singularia vel confluentia, globosa ad subglobosa, ostiolata, ad 250 μm diam. *Conidia* hyalina, simplicia irregulariter cylindrica vel ellipsoidea, plerumque biguttulata, 3–5 × 2·5 μm.

In cortice *Eucalypti camaldulensis*, University campus, Shuwaikh, Kuwait, 7 Nov. 1986, J. L. Mulder, JM 203, IMI 321842, holotypus.

Pseudothecia partially submerged in the bark, becoming erumpent to almost fully exposed at maturity, appearing singly or aggregated, colonizing new exposed outer layers of the bark material, dark brown to black, spherical or spherical with a collapsed apical region, 260–395 μm wide (mostly 340–395 μm). *Asci* bitunicate, 8-spored, cylindrical or saccate cylindrical, tapered at the base to a short pedicel (15 × 6–7 μm), 70–102 μm long × 15–21 μm wide. *Ascospores* muriform, mostly biseriate, constricted at the septa, pronounced at the second septum, coloured or light brown, septa 3–4, mostly 3