Diplogelasinospora moalensis
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**Diplogelasinospora moalensis** Dania García, Y. Marín & Cano, sp. nov.

**Etymology**. Named after woodland Moal, surrounding the village where the soil samples were collected.

*Mycelium* consisting of branched, septate, smooth, 2–5 μm diam hyphae. *Ascomata* cleistothecial; superficial to immersed, scattered to grouped, at first yellowish brown, becoming black at maturity, 170–310 μm diam, hairy, covered by hypheae-like, setae. *Setae* flexuous, slightly rugose- and thick-walled, and yellowish brown to brown up to 500 μm long, measuring 2–7 μm at base. *Peridium* membranaceous to slightly carbonaceous, brown to black and opaque, 3–4-layered, 2–5 μm thick, 18–27 μm in length, dark cell 16–19 μm at first cylindrical, becoming cylindrical-clavate, short stipitate, at maturity, 170–310 μm diam, hairy, covered by hyphae-like, moniliform, septate and sometimes constricted at the septa, without constriction at the septum, which is near the upper end of the ascospore.

Asci 8-spored, soon evanescent, lacking a distinct apical ring, at first cylindrical, becoming cylindrical-clavate, short stipitate, 150–180 × 14–22 μm. *Paraphyses* abundant, cylindrical to moniliform, septate and sometimes constricted at the septa, 3–13 μm diam. *Ascospores* at first asceptate and hyaline, irregularly uniseriate, ellipsoidal, becoming transversely septate without constrictions at the septum, which is near the upper third of the ascospore; one cell becoming dark brown to black, whereas the other remaining hyaline or less frequently pale yellowish brown and usually collapsing at maturity. Ascospores (18–)20–27 μm in length, dark cell 16–19 × 15–18 μm; both cells showing ornamented walls with circular inwardly projecting pits showing an endodendate endosporium; germ pore inconspicuous, subapical to laterally disposed at dark cell, 1–2 μm diam.

Culture characteristics — Colonies on Czapek agar and oatmeal agar attaining 80 mm diam after 14 d at 25 °C: velvety to cottony olive-brown (4E8); reverse dark brown (8F4) (Kornerup & Wanscher 1984). Minimum and maximum temperature of growth: 10 and 45 °C, respectively. Production of initial ascomata were detected at 25, 30 and 35 °C after 14 d, mature ascomata were observed after 21 d at the same temperatures.


Notes — The genus *Diplogelasinospora* was erected to accommodate *D. princeps* characterised by non-ostiolate ascomata and 2-cell ascosporas with pitted walls (Udagawa & Horie 1972). Although the ex-type strain of *D. princeps* was isolated from flax seed, the other strains of this species had been isolated from soil, the same source where the other species of the genus were collected. Currently, the genus includes two other species, namely *D. grovesii* and *D. inaequalis* (Udagawa et al. 1973). The morphological characters used for species delimitation are the total length of the ascospores, the septum position and the ornamentation of the ascospore wall (Udagawa & Horie 1972, Udagawa et al. 1973). *Diplogelasinospora moalensis* has a septum in the upper third of the ascospores, as observed in *D. inaequalis*; however, the latter has smaller ascospores (up to 22 μm) and the ornamentation pattern is similar to *D. princeps* and *D. grovesii*, i.e. reticulated wall formed by circular to elongate pits (up to 3 μm in *D. princeps*). On the other hand, *D. moalensis* has finely ornamented ascospores showing small, inward pits. Both ornamentation patterns are similar to those found in *Gelasinospora* (syn. *Neurospora*); however, Cai et al. (2006) confirmed that *Diplogelasinospora* is phylogenetically unrelated to *Gelasinospora* and showed that *Diplogelasinospora* is more related to *Lasiosphaeriaceae* than *Sordariaceae*.

A Blast search using the ITS sequence of our isolate showed a 98 % and 96 % similarity with those of *D. inaequalis* (AY681201) and *D. grovesii* (NR_077164), respectively. The LSU tree corroborated that *D. moalensis* is a new taxon in the genus, more closely related to *D. inaequalis* (NBRC 30580 and CBS 436.74) (TreeBASE ID 14810). The two branches formed suggest that the septal position is an informative character in this group, since the species with a median septum, such as *D. princeps* (NBRC 9550) and *D. grovesii* (CBS 340.73 and NBRC 31886) form a separate lineage, whereas those species with the septum displaced in the upper third generate another group. Although only a tentative hypothesis should currently be suggested, the inclusion of more isolates and new taxa may possibly help to solve the phylogenetic position of the genus and elucidate the real value of these morphological characters.

*Colour illustrations*. Moal forest, Asturias, Spain; *Diplogelasinospora moalensis* growing on Czapeck and OAT, asci and ascospores. Scale bars = 10 μm

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