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NOTES AND BRIEF ARTICLES

A NEW APIOSORDARIA FROM SOIL

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In the course of a study of fungi isolated from soil in Spain, an ascomycete belonging to the genus *Apiosordaria* was isolated. It differs from previously described species by much larger and pitted ascospores.

Apiosordaria tenuilacunata Guarro, Martínez & v. Arx, sp. nov.

Ascomatis superficialibus vel semi-immersis, brunneo-nigris, pyriformibus, 400–700 × 330–450 µm, pilosis; pilis laxis, longis, flexuosis, dilute brunneis, septatis, 300–800 × 2–2.5 µm; collo conico, nigro, 100–150 × 80–100 µm, glabro; peridio membranaceo, prosenchymatico, laminibus carbonaceis; ascis cylindraceis vel clavatis, 8-spores, 90–160 × 22–28 µm; paraphysibus hyalinis, filiformibus, septatis; ascosporis biseriatis, primo unicellularibus, hyalinis, ellipsoideis vel obovatis, deinde transverse uniseptatis, cellula superiore late ellipsoideae, basi truncata, 27–34 × 18–23 µm, olivaceo-brunnea, episporio foveolato, foramine germinale circa 2 µm diam., ad apicem sito, cellula inferiore hyaline vel dilute flavis, conica, 11–17 × 10–12 µm, postremo collapsa, apiculli hyalino, 1–2 µm, apicem sito.

Typus vivus et exsiccatus: In culturis ex solo, Sierra Prades, Catalonia, 18 Dec. 1979. FFBA 157 (holotypus).

Ascomata superficial or immersed with the base, pyriform, ostiolate, brownish black, 400–700 × 330–450 µm, loosely covered with long, flexuous, pale brown, septate hairs which measure 300–800 × 2–2.5 µm; neck conical, black, 100–150 × 80–100 µm, glabrous. Peridium membranaceous, prosenchymatous, brown, with carbonaceous incrustations. Asci 8-spored, cylindrical-clavate, rounded above, with a distinct ring-like thickening at the apex, tapering below into a short stalk, 90–160 × 22–28 µm. Ascospores biseriate, at first 1-celled, obovate and hyaline, then becoming 2-celled due to a transverse septum in the lower third; upper ascospore cell broadly ellipsoidal, with a truncate base, 27–34 × 18–23 µm, olivaceous brown, with walls ornamented with shallow pits measuring 2.5–3 µm; germ pore single, apical in the upper cell, about 2 µm; lower cell hyaline or pale brown, conical, 11–17 × 10–12 µm, smooth, often collapsed at maturity; apiculus hyaline, 1–2 µm long.

Cultures on oatmeal-salts agar spreading broadly, thin, vegetative mycelium submerged, with surface consisting of a thin growth of rather prostrate hyphae, ascomata numerous, ripening slowly, reverse gray.

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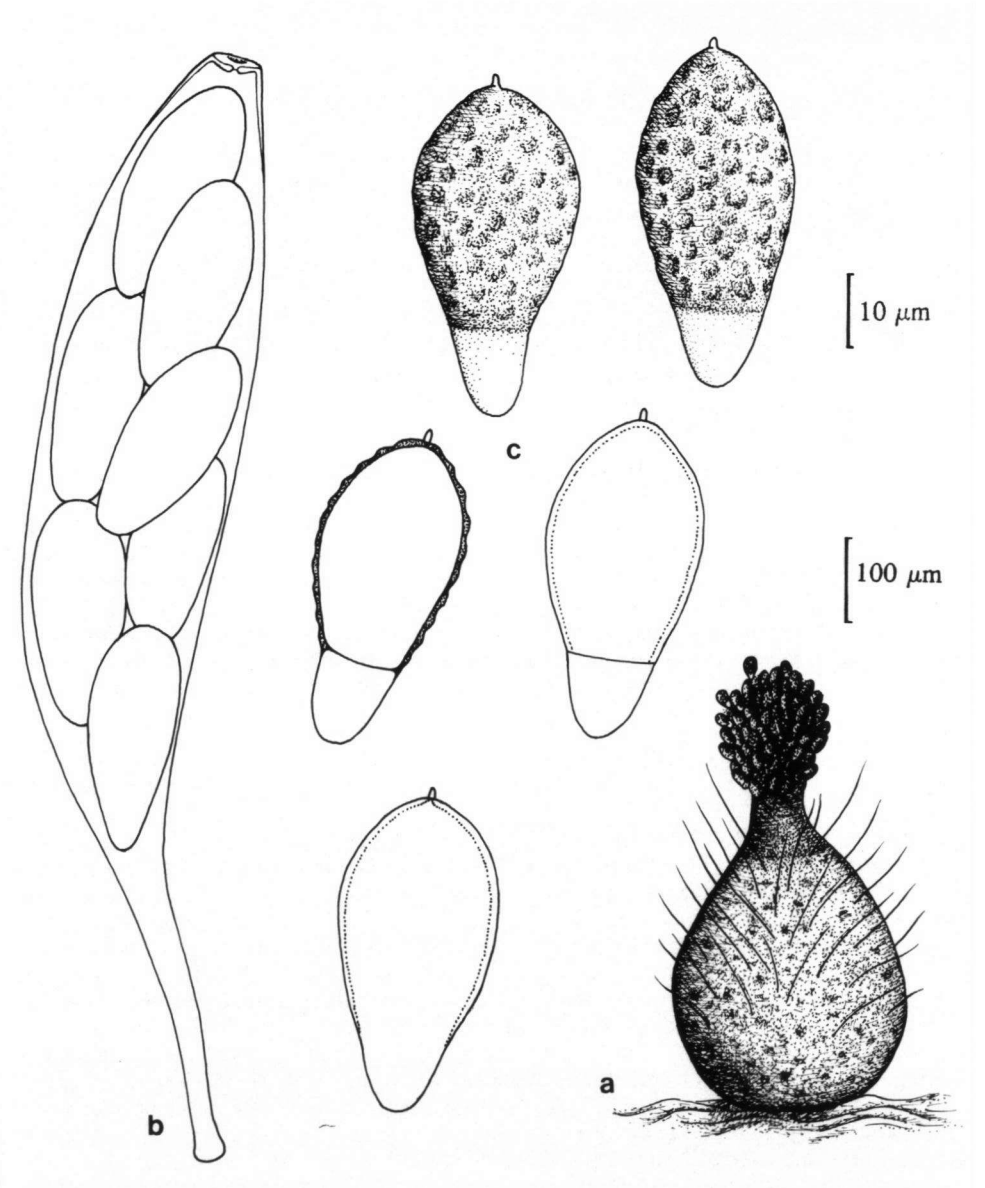

Fig. 1. *Apiosordaria tenuilacunata*. — a. Ascoma. — b. Ascus. — c. Ascospores.

Material studied (living and dried): FFBA 157, in culture from soil, Sierra of Prades, Catalonia, 13 Dec. 1979 (holotype); FFBA 37, in culture from forest soil, Montblanc, Catalonia, 3 May, 1978. Subcultures derived from the type have been deposited in the culture collections of CMI and CBS.

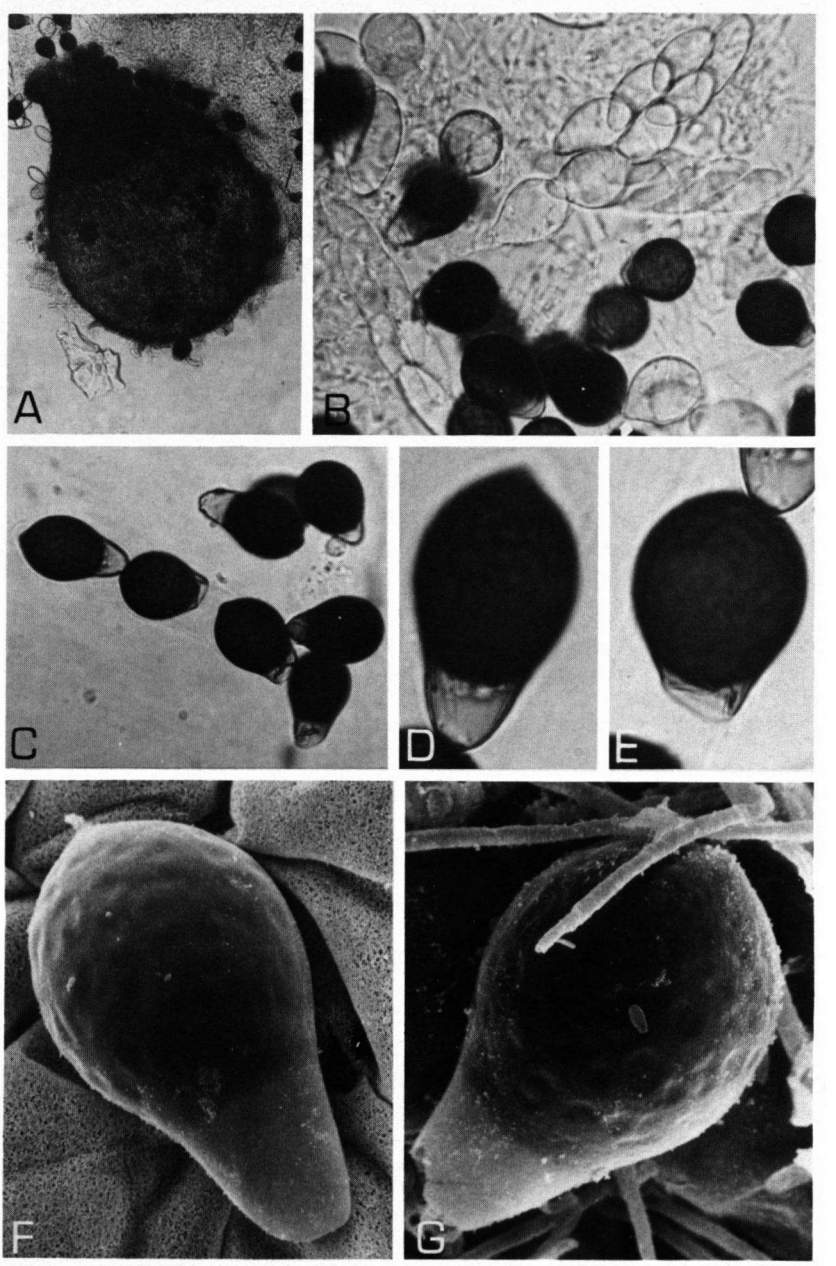

Fig. 2. *Apiosordaria tenuilacunata*. — A. ascoma × 80. — B. Asci and ascospores × 320. — C. Ascospores × 320. — D, E. Ascospores × 800. — F, G. Ascospores × 1440.

The genus *Apiosordaria* was described by von Arx and Gams (1967) for *Pleurage verruculosa* Jensen, a soil borne ascomycete (Sordariaceae) with ostiolate, ampulliform ascomata, cylindrical, 4-spored asci and inequally 2-celled, pigmented and ornamented ascospores. Several new species were added to the genus by Morinago & al. (1979) and Udagawa (1980). Von Arx (1981) synonymized the genera *Lacunospora* Cailleux and *Jugulospora* Lundqvist with *Apiosordaria*, both being described for similar Sordariaceae with 8-spored asci and with verrucose or pitted ascospores. He maintained *Echinopodospora* Robison described for Sordariaceae with spherical, non-ostiolate ascomata and inequally 2-celled, echinulate ascospores. No intermediate forms with synchronously ostiolate and non-ostiolate ascomata are known. Recently Krug & al. (1983) included *Echinopodospora* in *Apiosordaria*.

The genus *Apiosordaria* now contains 16 species and 1 variety, of which 7 are characterized by non-ostiolate ascomata. The above-described *A. tenuilacunata* differs from all other species with ostiolate ascomata by its very large ascospores measuring 38–48 × 18–23 µm with relatively large pits.

The genus *Apiosordaria* is related to *Gelasinospora* Dowding (with 1-celled, variously ornamented ascospores), *Diplogelasinospora* Cain (with 2-celled, pale, pitted ascospores and non-ostiolate ascomata), *Triangularia* Boedijn (with inequally 2-celled, in face view triangular ascospores) and to the *Podospora-Zopfiella* complex.

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