

Two Interesting Ascomycetes from Catalunya (Spain)

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With 3 figures

Abstract: Two species of Ascomycetes recovered from Catalunya plant debris in Spain are described. One of them is regarded as a new species, namely *Zopfiella udagawae* Guarro et Punsola and the other *Achaetomium raii* represent new record in the Spanish mycoflora.

Recently two interesting fungi were isolated from plant debris at Catalunya by Dr. L. Punsola. One of them could be identified as *Achaetomium raii* (Rai et Chowdhery) Locquin-Linard. The second species appeared to differ sufficiently from all known members of the genus *Zopfiella* Winter to be described as a new species.

Achaetomium raii (Rai et Chowdhery) Locquin-Linard, Cryptog.
Micol. 1: 236. 1980 (Fig. 1)

≡ *Achaetomium indicum* Rai et Chowdhery, Curr. Sci. 47: 23. 1978.

Asocarps superficial, scattered or loosely aggregated, light yellowish-brown, ostiolate, 120-180 × 70-110 μm, with a short neck. Asci 8 spored, clavate, evanescent, stipitate. Ascospores biseriate, pale brown, ellipsoidal or fusiform, sometimes rhombo-ellipsoidal with truncate ends, smooth, 19-24 × 9-12,5 μm, with two germ pores measuring 2-2,5 μm in diam., one at each end.

HABITAT: On dead stem, Alt Penedés, Catalunya, Feb. 16, 1981, FFBA 250.

This strain differs from the type by much smaller ascocarps (Rai & Chowdhery, 1978).

Zopfiella udagawae Guarro et Punsola, sp. nov. (Fig. 2-3)

Ascocarpis atrobrunneis, sphaericis, 150-350 μm diam., cleistotheciales, dense pilosis; pilis dilute flavo-brunneis, flexuosis, septatis, levibus, 2-2,5 μm diam., simplicibus vel ramosis. Peridio pardo crasso, primo semitranslucido, deinde atrobrunneo et opaco, coriaceo; cellulis crassis et irregularibus. Asci fasciculati, octospori, primo elongati, denique clavati, superne rotundatis, ad apicem cum annulo parvo praeditis, stipitati, evanescentibus. Paraphyses nulli. Ascospores irregulariter biseriatae, e cellula superiori atra et appendiculo inferiori hyalino constantes; cellula superior atro-brunnea vel atra 20-38 \times 13-21 μm , continua, levis, \pm ellipsoidea, apicaliter conica, basaliter truncata, foramine germinale circulari, circa 2 μm diam. subapicali praedito; cellula appendicularis hyalina, cylindracea 25-50(90) \times 5-8 μm , deinde collapsa. Vagina gelatinosa incognita. Conidiis incognitis.

Typus: In ligno emortuo, Alt Camp, Catalunya, Feb. 16, 1981, FFBA 264.

Etym: Honouring S. Udagawa for his excellent treatment of the soil Ascomycetes.

Ascocarps dark brown to nearly black, spherical, 150-350 μm in diam., cleistothecial, covered with septate, flexuous, pale yellowish brown, hyphal-like hairs, smooth-walled, 2-2,5 μm in diam., unbranched or branched. Peridium rather thick, at first semitransparent, becoming dark brown and opaque at maturity, coriaceous, consisting of thick walled, irregular cells. Asci fasciculate, 8-spored, elongate at first, becoming broadly clavate, rounded above, with a small thickened ring in apex, stipitate, evanescent. Paraphyses lacking. Ascospores irregularly biseriate, each consisting of a dark upper cell and a hyaline lower appendage; upper cell hyaline at first, becoming dark brown, smooth, opaque, irregularly shaped, \pm ellipsoidal, 20-38 \times 13-21 μm , pointed at the tip, truncate at the base, with a subapical circular germ pore measuring about 2 μm in diam., and sometimes containing refractive oil globules; lower cell hyaline, cylindrical, long, 25-50(90) \times 5-8 μm , straight or curved, later collapsing. Gelatinous equipment lacking. Conidial structures not seen.

Type: On dead stem, Alt Camp, Feb. 16, 1981, FFBA 264.

In shape and size of the dark upper ascospore cells resembles *Z. inermis* (Cailleux) Malloch et Cain, (Malloch & Cain, 1970). Is distin-

guished from it principally in having the hyaline cell of the ascospores longer cylindrical and a subapical germ pore and from the other species of *Zopfiella* by the dimensions and shape of the ascospores.

Permanent slides preparations of the type strain have been deposited in the Commonwealth Mycological Institute, Kew, England and in the Collection of Culture of the Faculty of Medicine, Reus, University of Barcelona.

References

MALLOCH, D. & R.F. CAIN (1970) - New cleistothecial Sordariaceae and a new family, Coniachaetaceae. *Can. J. Bot.* 49: 869-880.

RAI, J.N. & H.J. CHOWDHERY (1978) - *Achaetomium indicum* Rai et Chowdhery spec. nov.: A new species of the genus *Achaetomium* from indian "usar" soils. *Curr. Sci.* 47: 23-24.

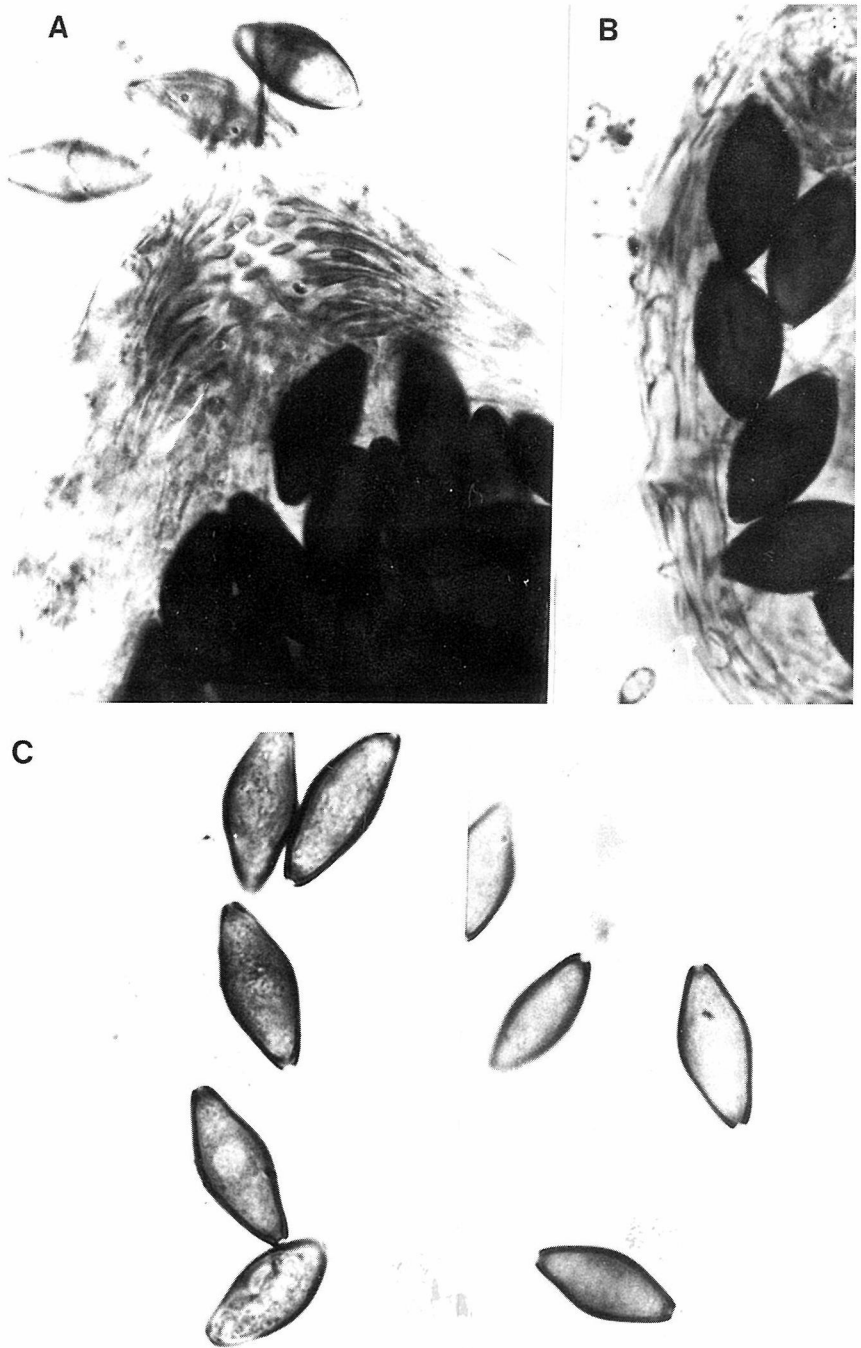


Fig. 1. *Achaetomium raii* (FFBA 250). A, upper part of perithecium ($\times 1000$). B, section of peridium ($\times 1000$). C, ascospores ($\times 1000$).

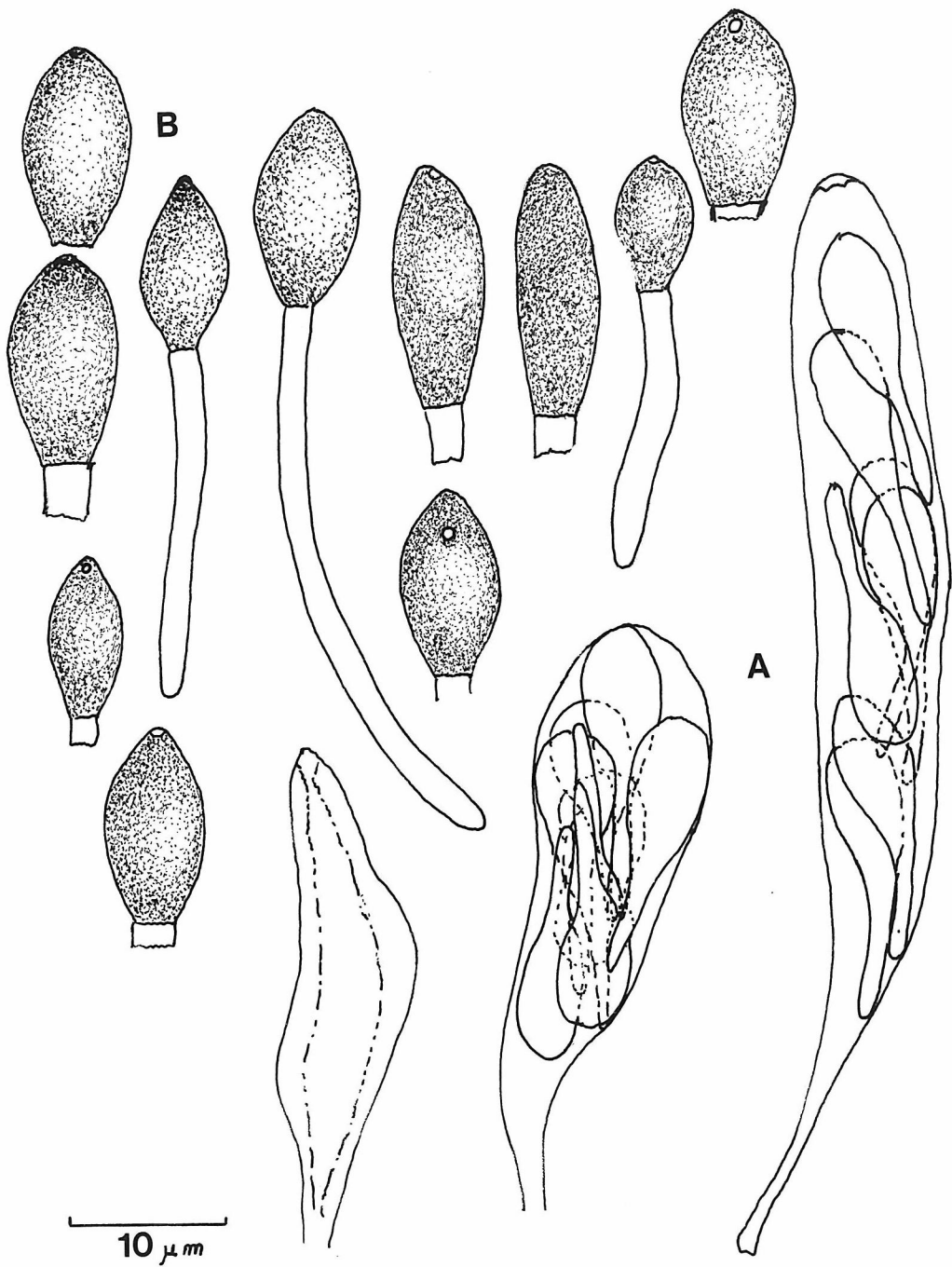


Fig. 2. *Zopfiella udagawae* (FFBA 264). A, asci. B, ascospores.

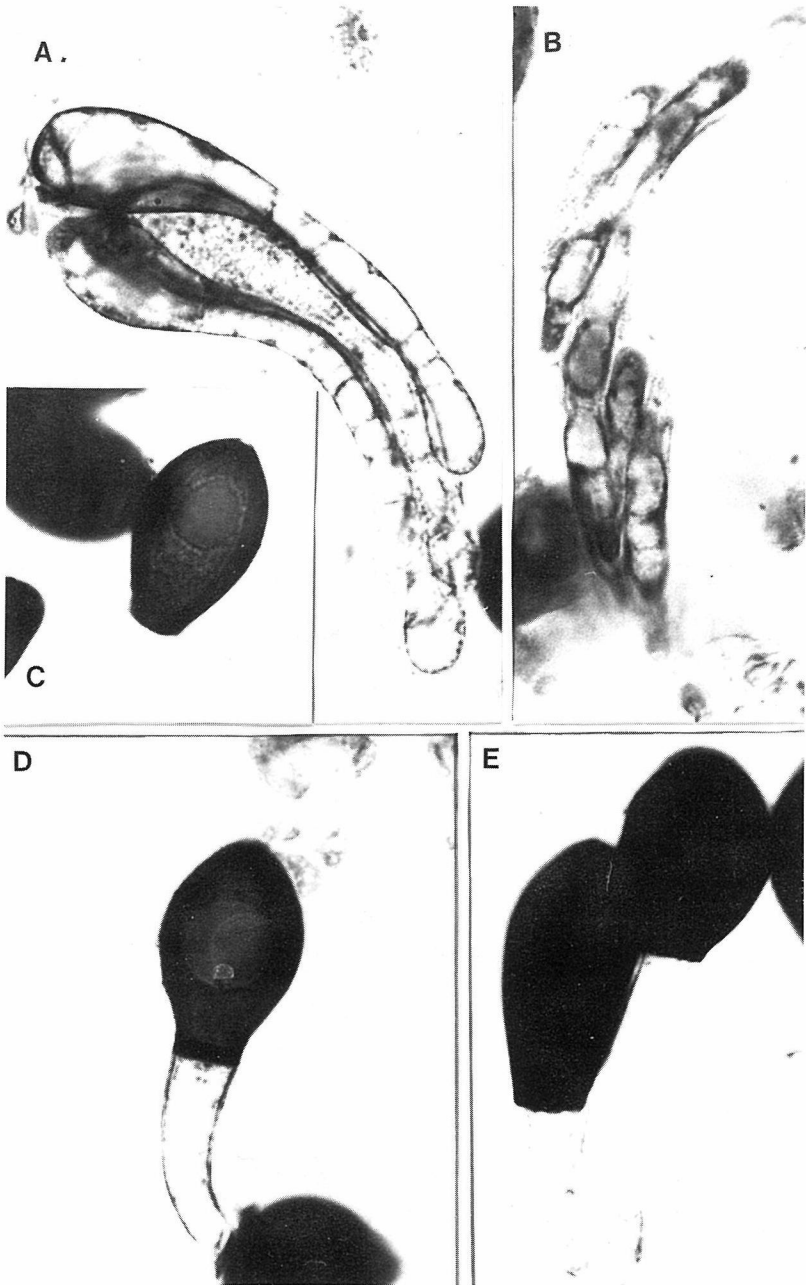


Fig. 3. *Zopfiella udagawae* (FFBA 264). A, immature ascospores ($\times 1000$). B, ascus ($\times 1000$). C-E, mature ascospores ($\times 1000$).