

***Podosordaria leporina* (Ell. & Ev.) Dennis (Ascomyceta: Xylariaceae): A New Record for Thailand**

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ABSTRACT.– *Podosordaria leporina* (Ell. & Ev.) Dennis, a coprophilous fungus, was found in the Chachoengsoa Province, Eastern Thailand and is a new record for the Thai mycoflora.

KEY WORDS: *Podosordaria leporina*, Xylariaceae, coprophilous fungus, new record, Thailand

INTRODUCTION

Podosordaria Ellis & Holway is a xylariaceous ascomycete which is characterized by a coprophilous habitat, perithecia enclosed in a subglobose head of an erect brown stroma, asci with an amyloid apical apparatus and dark spore with a longitudinal germ slit and gelatinous sheath. This genus is close to *Poronia* Willdenow ex Fries. but *Podosordaria* is different from *Poronia* in that the typically stalked stroma with a subglobose head rather than a flattened disc (Dennis, 1957).

During routine field sampling in the Chachoengsoa Province, Eastern Thailand in 1995, a species of *Podosordaria* was collected and identified as *Podosordaria leporina* (Ell. & Ev.) Dennis. On referring

to the literature on Thai mycoflora, this species was found to be a new record for Thailand.

MATERIALS AND METHODS

The specimens of *Podosordaria* (E. Bangyeekhun 31) were collected from a eucalyptus plantation at Ladkrating, Sanamchaiket District, Chachoengsoa Province, Eastern Thailand and are deposited in the Herbarium of the Department of Botany, Faculty of Science, Chulalongkorn University (BCU). Cytological observations were made via brightfield microscopy on cotton blue-stained materials, safranin O-stained paraffin section of stromata or melzer's reagent-stained asci. The specimens were determined to species level using the keys of Krug and Cain (1974) and Krug and Jeng (1995).

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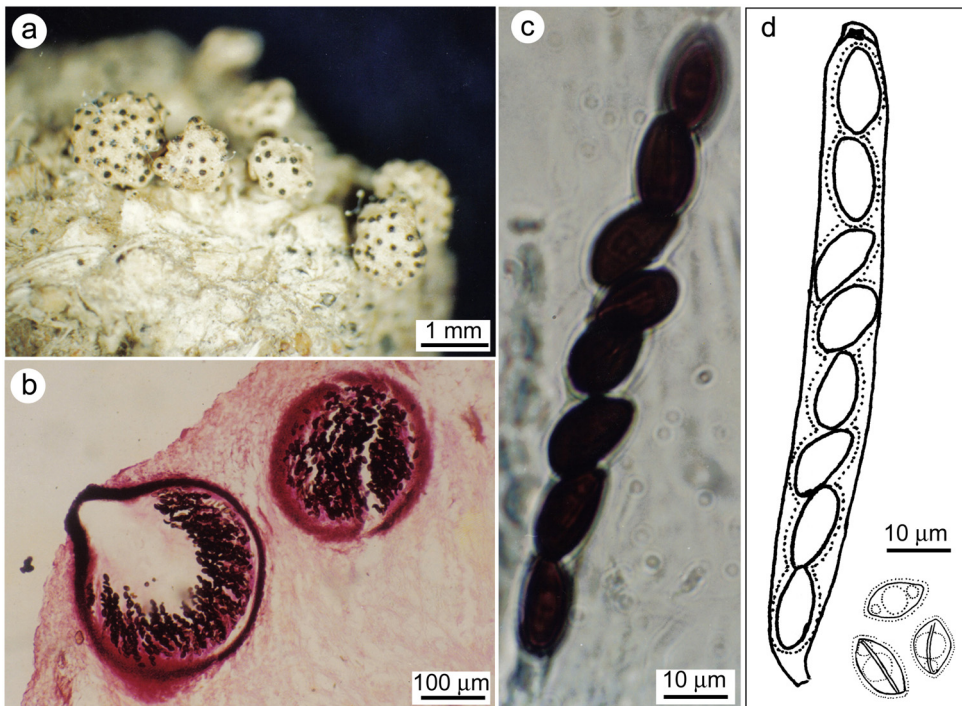


FIGURE 1. *Podosordaria leporina* (Ell. & Ev.) Dennis. (a) Stromata on rabbit dung; (b) Longitudinal section of stroma showing perithecia; (c) Ascospores within ascus; (d) Line drawing of ascus showing apical apparatus stained in Melzer's reagent and mature ascospores with germ slit and gelatinous sheet.

RESULT

The morphological characters of *Podosordaria* specimens (E. Bangyeekhun 31) perfectly matched the species keys and description of *Podosordaria leporina* (Ell. & Ev.) Dennis provided by Krug and Cain (1974) and Krug and Jeng (1995). To my knowledge, this species is new record for Thailand. A description herein is based on the examined Thai specimens (Fig. 1).

Podosordaria leporina (Ell. & Ev.) Dennis
Figure 1

Poronia leporina Ell. & Ev., Proc. Acad. Nat. Sci. Philadelphia, p. 229. 1890.

Poronia minute Petch, Ann. R. Bot. Gard. Peradeniya, 6: 225. 1917.

Podosordaria leporina (Ell. & Ev.) Dennis, Kew Bull. 12: 306. 1957.

Stromata scattered, subglobose to ovate, roughened, 1-2 mm diam, light brown with numerous black papillate ostiole of embedded perithecia; stalk short, slender, unbranched, smooth, 3-4 mm long, deeply rooting in the substrate. *Perithecia* erumpent, protruding, prominent, globose to subglobose, 250-350 μm diam. *Asci* uniseriate eight-spored, cylindrical, 95-115 x 8-10 μm , rounded at the apices; *apical apparatus* I+ (blue), indistinct, cylindrical. *Paraphysis* numerous, club-like, thin, longer than asci, hyaline, septate. *Ascospore* one-celled, uniseriate, ellipsoidal, 13-15 x 8-9

µm, deep brown at maturity, guttulate, surrounded by a hyaline gelatinous sheath; germ slit lateral, 12-13 µm long.

Habitat.- On rabbit dung.

Specimen examined.- THAILAND: Chachoengsoa Province, rabbit dung, Aug 24, 1995, E.Bangyekhun 31 (BCU).

Distribution.- U.S.A., Mexico, Germany, Mauritius.

DISCUSSION

The genus *Podosordaria* consists of 18 known species as described by Krug and Cain (1974), Martin (1976), Furuya and Udagawa (1977), Udagawa and Kobayasi (1979), Rogers and Laessøe (1992), Krug and Jeng (1995), Hyde et al. (1996) and Rogers et al. (1998). *Podosordaria leporina* is characterized by the short stromatic stalk, which is deeply rooting in the substrate and the small ascospores. This species seems to be similar to *P. hircina* and *P. australiensis*. However, the stromatic stalk of *P. leporina* is shorter than that of *P. australiensis* but longer than that for *P. hircina* whilst the ascospores of *P. leporina* are bigger than those of these two species.

To my knowledge, *P. leporina* was observed in U.S.A., Mexico, Germany and Mauritius but not in Thailand or even S.E. Asia. The discovery of this species in Chachoengsoa Province, Thailand could indicate that *P. leporina* may distribute in a much wider geographical region than previously known. Due to their tiny stromata, *P. leporina* is hardly visible and was possibly missed by the previous collectors.

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