

Two helicosporous hyphomycetes closely related to *Helicosporium elinorae* Linder

Ho-Shii Chang

Institute of Botany, Academia Sinica, Taipei, Taiwan 11529, Republic of China

(Received October 19, 1988; Accepted December 27, 1988)

Abstract. Two fungal isolates collected at Wulai, Taipei and Changtsunchih, Hwalien, share the characteristics of the species *Helicosporium elinorae* were observed and isolated from decayed twigs in humid areas. The conidiophore apices were granulate-roughened by crystal-like deposits, a distinct character of the species *H. elinorae*. The only difference between our isolates and Linder's original one is that the conidia of the Wulai isolate were thinner, whereas Changtsunchih isolate were thicker than those of Linder's original fungus. Conidia of Changtsunchih isolate were also with distinct constriction at septa. Based on the characteristic of granulate-roughened conidiophore apex these two helicosporous fungal isolates were identified as *H. elinorae* regardless of difference in the dimensions of conidia.

Key words: *Helicosporium elinorae*, Taiwan.

Two helicosporous hyphomycetes shared a distinct character of conidiophore apex on which were granulate-roughened by crystal-like deposits were observed and isolated from decayed twigs collected at Wulai and Changtsunchih. The general characters of both fungus isolates were described as follows: Colonies effuse, brown to dark, thin hairy. Mycelium immersed. Conidiophores macronematous, arising from repent mycelium, light golden brown, septate, terminal cells subhyaline, granulate-roughened by crystal-like deposits, 175-230 × 5.30-7.00 μm for Wulai isolate, 120-195 × 6.50-7.50 μm for Changtsunchih isolate. Conidia pleurogenous, solitary on monoblastic, teeth-like, conidiogenous cells multiseptate, smooth, light fuscous, coiled 2-3 times, coiled conidia 35-40 μm in diameter, conidial filament 3.50-5.50 μm for Wulai isolate; coiled One time, coiled conidia 65-80 μm in diameter, conidial filament 9.00-11.00 μm for Changtsunchih isolate. Conidia of Changtsunchih isolate with distinct constriction at septa.

Among the genus *Helicosporium*, only the species

H. elinorae was reported to have a characteristic with granulate-roughened crystal-like deposits on the apex of conidiophore. Both of our isolates possessed this very same character. However, conidia of Wulai isolate were thinner than Linder's original description of *H. elinorae*, whereas conidia of Changtsunchih isolate were thicker than those of Linder's original fungus besides being with distinct constriction at septa (Linder, 1929; Moore, 1955). Conidiophore apex with or without crystal-like granular deposits was employed as a criterion to delimit *H. elinorae* from other species of *Helicosporium* by Linder and was so followed by Moore. Crystal-like deposits disappeared from the conidiophore apex of Wulai isolate formed on corn section placed on Sach's medium, whereas, conidiophore apex of Changtsunchih isolate formed on same substrate still possess this very characteristic. Nevertheless, on natural substrate the conidiophore apex of both isolates were granulate-roughened by crystal-like deposits, and it was counted to be as a criterion to delimit the species. Without further comparative study

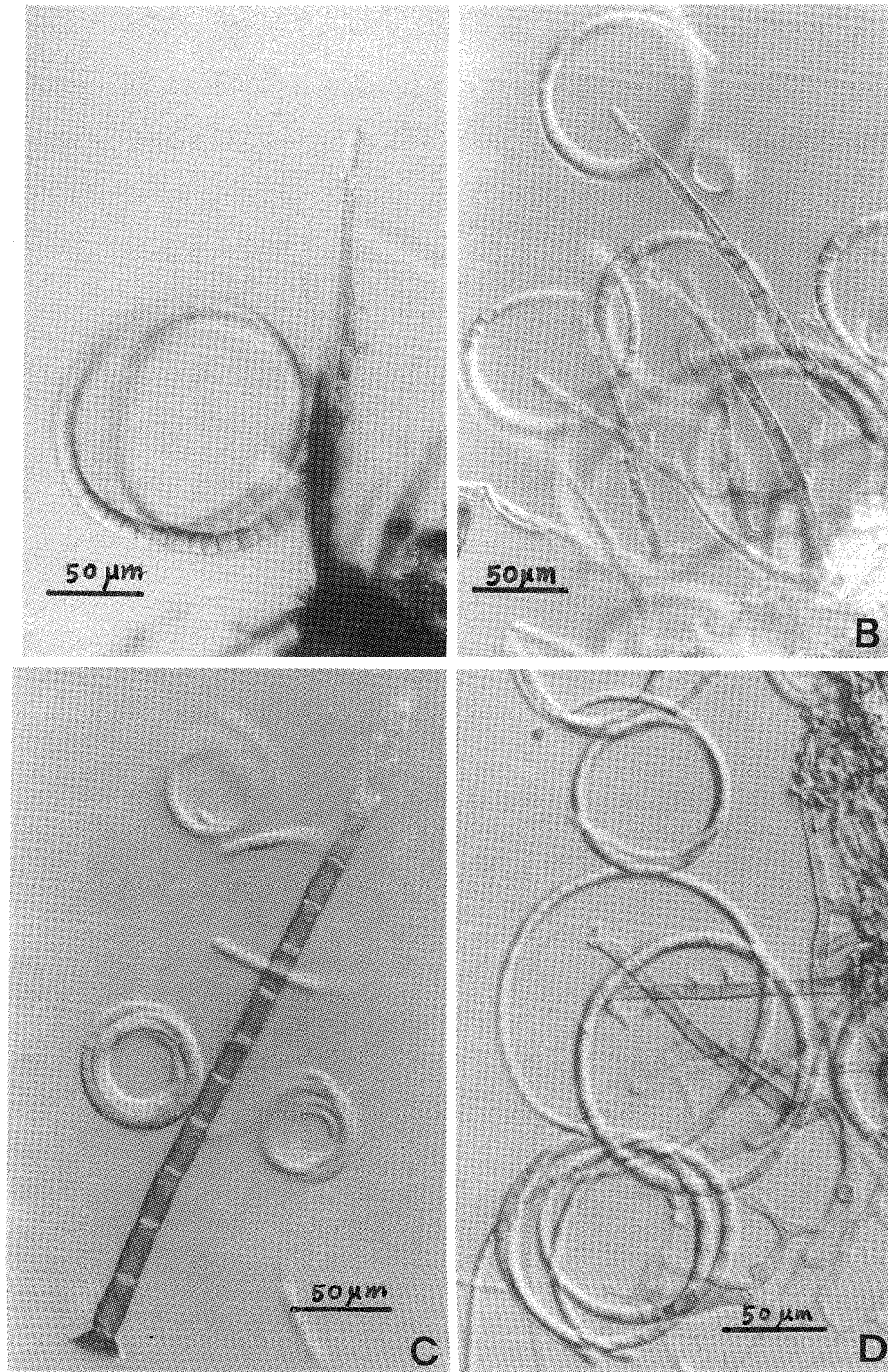


Fig. 1. *Helicosporium elinorae*. Changtsunchih isolate: A, on natural substrate; B, on corn leaf section; Wulai isolate; C, on natural substrate, D, on corn leaf section.

with original culture the present two isolate fungi were tentatively identified as *H. elinorae*.

Imperfecti. Ann. Mo. Bot. Gard. **16**: 277-388.
Moore, R.T. 1955. Index to the Helicosporae. Mycologia **47**: 90-103.

Literature Cited

Linder, D.H. 1929. A monograph of the helicosporous Fungi

兩株類似 *Helicosporium elinorae* Linder 之螺旋孢型 絲狀不完全菌

張和喜

中央研究院植物研究所

得自烏來和長春祠的半腐敗斷樹枝上觀察到兩株螺旋孢型絲狀下完全菌 *Helicosporium elinorae* 者，其分生子梗之頂端部有結晶狀的粒狀體，在 *Helicosporium* 屬中，只有 *H. elinorae* 一種具此特徵。烏來和長春祠所得之菌株，均具此一特徵，但是分生孢子之大小和 Linder 氏之原始標準菌者不完全一致。烏來菌株之分生孢子較小，其寬為 3.50-5.50 μm ，而長春祠菌株者較大，為 9.00-11.00 μm 。Linder 氏之原始菌株者為 6.30-8.00 μm 。長春祠菌株之分生孢子另一特徵為分生孢子之隔膜處向內收縮。烏來菌株者無此特徵，Linder 氏之原始記載亦無述及此特徵，未做進一步比較研究前，此二菌株暫歸屬於 *H. elinorae*，為台灣之新記錄菌。