

Nematode destroying fungi in Libyan Jamahiriya soil. A. Isolation of *Catenaria anguillulae*, an endoparasitic fungus on *Rhabditis* spp

A. Y. GIUMA¹

ABSTRACT

Nematode destroying fungi are endoparasites without an extensive hyphal development outside the body of their host (1). In most species only evacuation tubes are produced externally. Eventually the endoparasitic spores are either ingested by the host or adhere to its cuticle. Comparatively few detailed studies have been made on endozoic fungal parasites of soil nematodes (1, 2). In Libyan Jamahiriya soil, the first work has been done by Giuma and Cooke (4). This work was carried out to verify the presence of this group of fungi in Libya.

Nematodes were isolated from a grove soil at Ain Zara, Tripoli in spring, 1984. An unidentified *Rhabditis* spp., infected with an endoparasitic fungus was isolated as described by Giuma and Cooke (4). Diagnostic characteristics of this isolated fungus closely fitted those described by Sorokin (1976); Cooke and Godfery (3) and Barron (2).

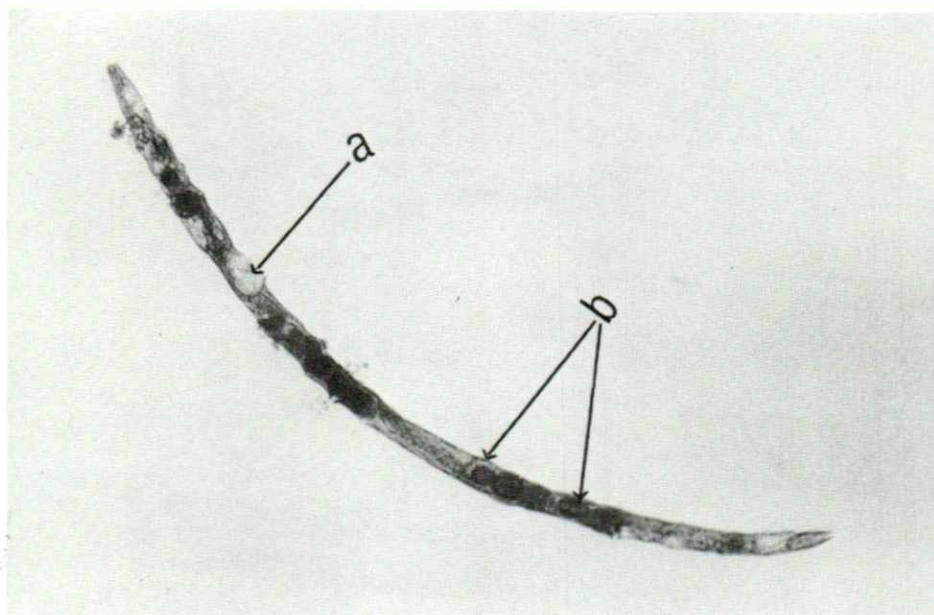


Fig. 1 — An unidentified *Rhabditis* spp. infected with the fungus *Catenaria anguillulae*. (a) Zoosporangia and (b) Resting sporangia.

¹ Department of Plant Protection, Faculty of Agriculture, University of Al-Fateh, Tripoli, S.P.L.A.J.

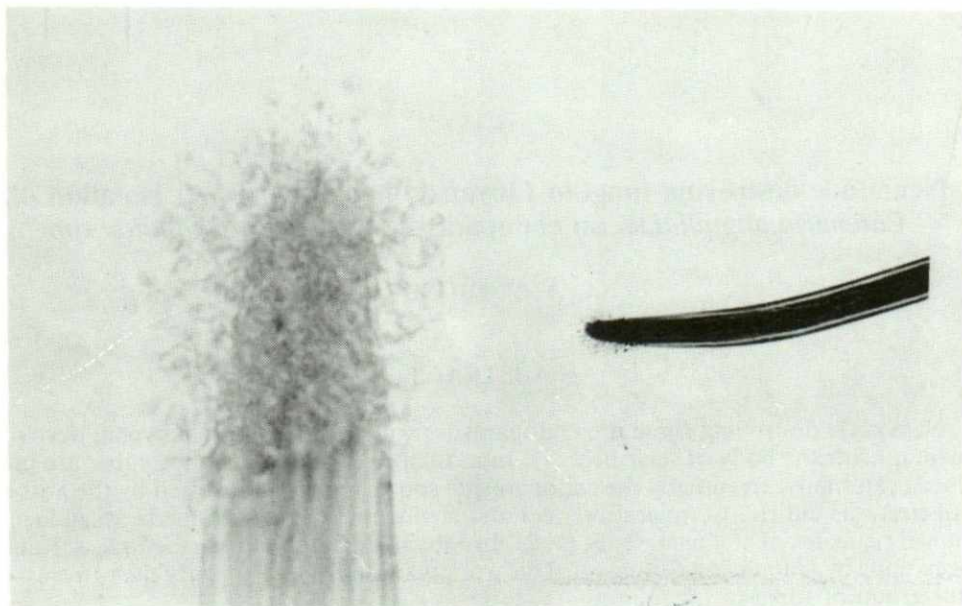


Fig. 2 — Zoospores accumulating around healthy nematode mouth (right), and left, the same part magnified..

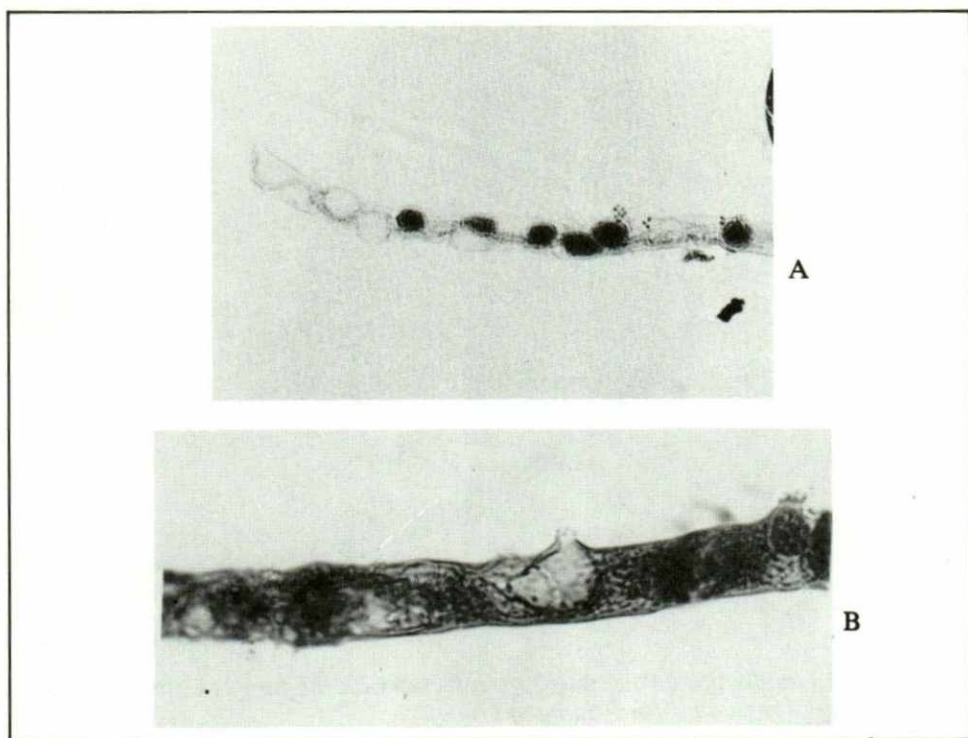


Fig. 3 — A: A nematode body completely destroyed and full with empty zoosporangia
B: Magnified evacuation tube from which the zoospores had escaped.

Therefore, the fungus belonging to the Chytridiomycetes was identified as *Catenaria anguillulae* Sorokin (1876). This fungus produced flagellated spores which were found accumulating around the nematode stoma (Fig. 2). The infective thallus grew longitudinally in the host body destroying and/or digesting the host contents. At maturity, swellings appear at more or less regular intervals along the thallus. These swellings increased in size to become zoosporangia (Fig. 3 A). Zoosporangia soon filled the host body. The zoospores apparently differentiated and escaped through the tip of the solitary exit tube (Fig. 3 B). The exit tube is mostly short and stubby. Also thick walled resting sporangia in the host body were observed (Fig. 1 b).

Therefore, *Catenaria anguillulae* is considered a first record from Libyan soil. Further investigation on its distribution, host-pathogen relationship and speciation will be pursued.

LITERATURE CITED

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