

Notes brèves

DESCRIPTION OF THE MALE AND OBSERVATIONS ON THE FEMALE OF *MERLINIUS RUGOSUS* (SIDDIQI, 1963) SIDDIQI, 1970 (NEMATODA : TYLENCHIDA) FROM JORDAN

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Merlinius rugosus (Siddiqi, 1963) Siddiqi, 1970 is known from India (Siddiqi, 1963), Iraq (Loof, 1978) and Israel (Cohn *et al.*, 1973). It was also recovered by the author in Jordan, from soil around banana (*Musa* L. (AAA Group) « Dwarf Cavendish ») and wheat (*Triticum* sp.) in the southern Jordan Valley and around grapevine (*Vitis vinifera* L.) in Salt. Males of this species were found in the Jordan Valley populations, and are described here for the first time together with a comparison of the females from Jordan with described material. Specimens used in this study were killed by heat, fixed in TAF, stained in acid-fuchsin lactophenol and processed to glycerol by Baker's (1953) rapid method.

Description of the male (Wheat population)

DIMENSIONS

Males (n = 8) : L = 0.64 - 0.84 (0.73) mm ; a = 31 - 40 (34.9) ; b = 5.3 - 6.5 (5.9) ; c = 11.5 - 17.0 (13.5) ; c' = 2.6 - 3.5 (3.1) ; T = 39 - 53 (45) ; spicules = 18 - 22 (20.5) μ m ; gubernaculum = 7.0 - 8.5 (7.3) μ m ; stylet = 17.5 - 19.0 (18.5) μ m.

DESCRIPTION

Body ventrally arcuate when killed by heat. Cephalic region hemispherical, bearing six or seven annules, and offset from the body by a constriction (Fig. 1, A). « En face » view shows six lobes of equal size, each lobe bearing a lip (Fig. 1, C). Cephalic framework

Median oesophageal bulb oval, large (12.5 - 16.5 \times 7 - 10 μ m) and with well-developed, refractive valvular apparatus. Basal oesophageal bulb elongate-pyriform. Œsophago-intestinal valve (cardia) prominent and rounded. Nerve ring surrounding middle of isthmus.

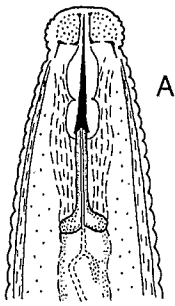
Body annules coarse, 1.5 - 2.5 μ m in width. Lateral field about 1/3 of mid-body diameter, with six incisures whose number declines anteriorly ; the lateral field is completely areolated in the oesophageal region and irregularly areolated posteriorly. Outer incisures of the field crenate in the tail region. Deirids not observed. Thirty longitudinal citicular striae occurred in mid-body region (Fig. 1, E).

Testis single and outstretched, with spermatocytes arranged in two rows. Vacuolated globules (= ? spermatozoa), measuring 1.5 - 2.0 μ m in diameter, were observed in the vas deferens.

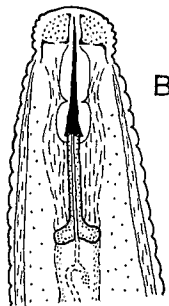
Spicules stout, ventrally arcuate and with notched tips. Gubernaculum simple, crescent-shaped in lateral view and non-protrusible. Hypoptygmae present on the posterior cloacal lip. Caudal alae well-developed with crenate edges, extending from about opposite the proximal ends of the spicules to the tail tip. Phasmids open on caudal alae, at 40-47 % of tail length.

Observations on the female

Females of *M. rugosus* from Jordan had a more strongly sclerotized and a more prominently offset cephalic region than was originally illustrated for this species by Siddiqi (1963) (Fig. 1, B). Furthermore, a comparison of measurements between these females

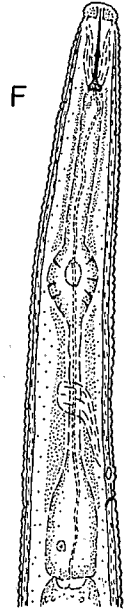


A



B

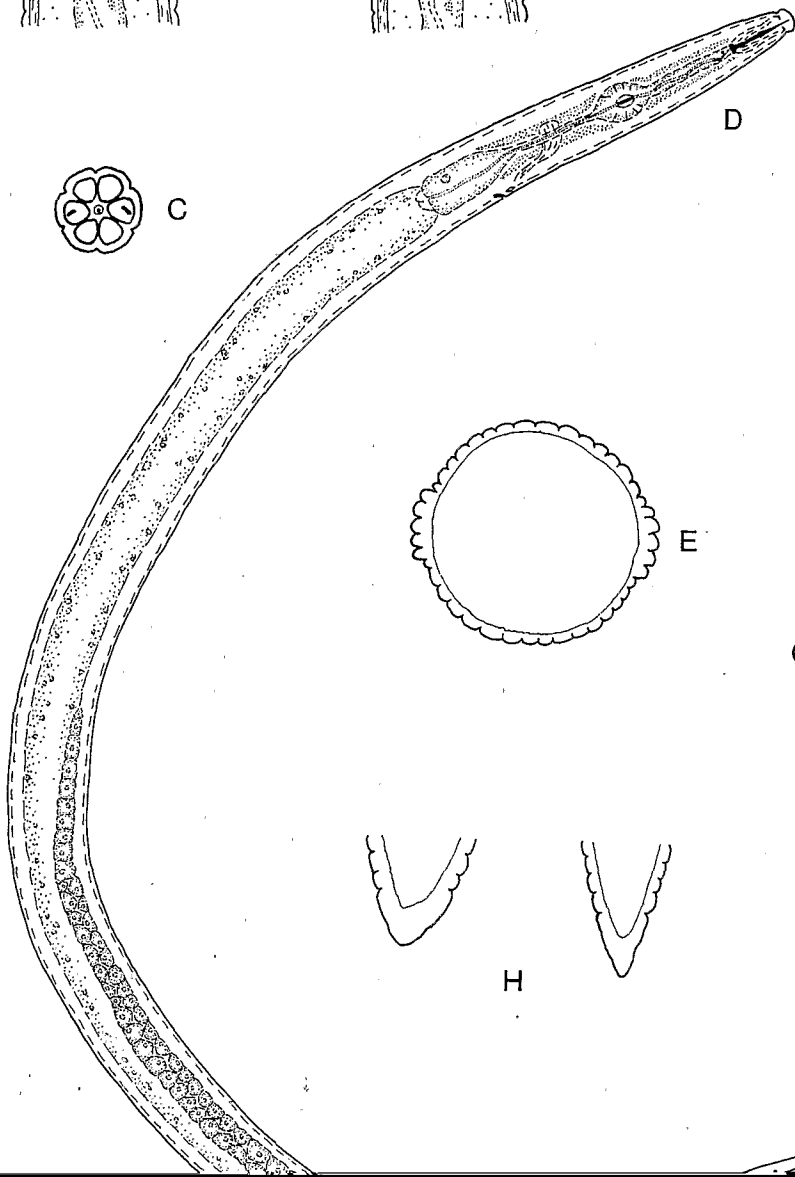
10μ A, C, E, G, H
20μ F
50μ D



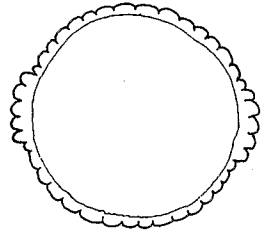
F



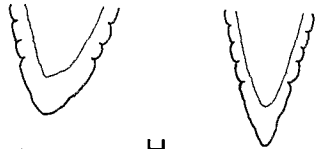
C



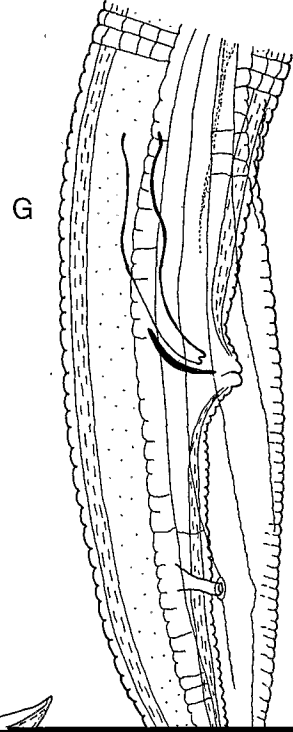
D



E



H



G

Table 1
Measurements of females of *Merlinius rugosus* (Siddiqi, 1963) Siddiqi, 1970
from different locations

	Jordan		India	Iraq
	Jordan Valley (orig.)	Salt (orig.)	(Siddiqi, 1963)	(Loof, 1978)
n	8	1	4	20
L (mm)	0.63-0.83 (0.75)	0.83	0.8-0.9	0.73-0.94
a	26-32 (29)	34	30-32	—
b	4.6-6.1 (5.6)	5.3	4.4-5.1	—
c	15-19 (16.5)	16	15.5-17	—
c'	2.2-3.0 (2.5)	2.7	3.0	2.6-3.1
V	53-57 (55)	55	55-56	52-58
Stylet (μ m)	18.-019.5 (18.6)	19.5	23	20-23
phasmids (% tail length)	31-45 (38.7)	42 (?)	33	20-23
Tail annules	20-27 (23.7)	26	24	19-28
Long striae	28-36	?	32-36	—

Discussion

Kheiri (1972) synonymized *M. rugosus* with *M. quadrifer* (Andrássy, 1954) Siddiqi, 1970, but this was rejected by Loof (1978) who detailed the differences between the two species. The apparent absence of males in the former species was a main character used by Loof (1978) to differentiate it from the latter species, which is bisexual, but, in the author's opinion,

The differences noted between the Jordanian and previously described populations of *M. rugosus*, such as the more prominently offset cephalic region and the differently-shaped tail tip of the Jordanian specimens, are not considered of significant magnitude for species differentiation. Similar variations have been noted in other, closely-related species. For instance, *Tylenchorhynchus clarus* Allen, 1955 has a cephalic region varying from continuous to slightly offset (Elmiligy, 1969), whilst *M. nanus* (Allen, 1955)

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Accepté pour publication le 19 juin 1979.

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~~Samples containing exactly equivalent numbers of (Fig. 2) The relationship between variance and the~~