

MAKATINUS MACROPUNCTATUS N.SP.
(NEMATODA: APORCELAIMIDAE)
FROM THE KRUGER NATIONAL PARK

By

JUAN HEYNS

Plant Protection Research Institute, Pretoria.

The family Aporcelaimidae was recently erected (Heyns, 1965) to accommodate certain dorylaimoid nematodes in which the spear guiding apparatus lacks a sclerotized fixed ring, and in which the oral aperture is a dorsoventral slit. At the same time the genus *Makatinus* was described to contain two species in which the cuticle is marked with punctations, and in which the vulva is a longitudinal slit. Only two species were known in this genus, viz. *M. punctatus* which occurs on the Makatini Flats, and *M. capensis* from the Eastern Cape Province. A third species of this genus has now been discovered in the Kruger National Park, and is here described as *Makatinus macropunctatus* n.sp.

The specimens were killed by the gradual application of heat, fixed in F.A.A. and mounted in glycerine. The slides are in the collection of the Plant Protection Research Institute, Pretoria.

MAKATINUS MACROPUNCTATUS N.SP.

Measurements:

Holotype (female): L = 3.19 mm; a = 38; b = 4.3; c = 133; V = ²⁰54.5¹⁶

Allotype (male): L = 2.76 mm; a = 42; b = 4.1; c = 91

Paratype (male): L = 2.84 mm; a = 39; b = 3.8; c = 118

Description:

Body cylindroid, somewhat ventrally curved when relaxed. Cuticle 6-7 μ thick on neck and middle region, 9-10 μ on dorsal side of tail; with a thin hyaline outer layer; inner layer thick, with very prominent radial lines, these lines ending in large punctations on the outer surface; punctations arranged in transverse rows. Lips conspicuous, not closely amalgamated, set off by a deep constriction. Lip region three times as wide as high, and one-third as wide as the body at the base of the oesophagus. Spear 26 μ long, measured from apex to base of dorsal sector. Spear aperture about 14 μ long. Depth of pharynx equal to three times the width of the lip region; basal junction between walls of pharynx and lumen of oesophagus prominent, thickened. Plications of wall of pharynx prominent beyond base of lip region. Amphid slightly more than half as wide as lip region. Oesophagus with very gradual

expansion starting about 33 per cent from anterior end, the enlarged part being two-thirds the corresponding body diameter. Dorsal gland nucleus prominent, located near expansion; other gland nuclei obscured by the presence of well-developed tubules. Cardia one-third the corresponding body diameter. Hemizonid and nerve ring both about 165-170 μ from anterior end. Intestine five or six cells in circumference. Rectum about one and one-half times as long as anal body diameter, and prerectum one and one-half times as long as rectum. Tail two-thirds as long as anal body diameter, in the female convex-conoid with broadly rounded terminus, in the male dorsally convex, ventrally slightly concave. Lateral field in the holotype one-fifth the corresponding body diameter, in the allotype and paratype one-tenth the corresponding body diameter. Lateral pores obscured by the very prominent radial lines. Dorsomedially six pores can be seen on the front part of the neck, while ventromedially about 15 pores are visible in the neck, but further

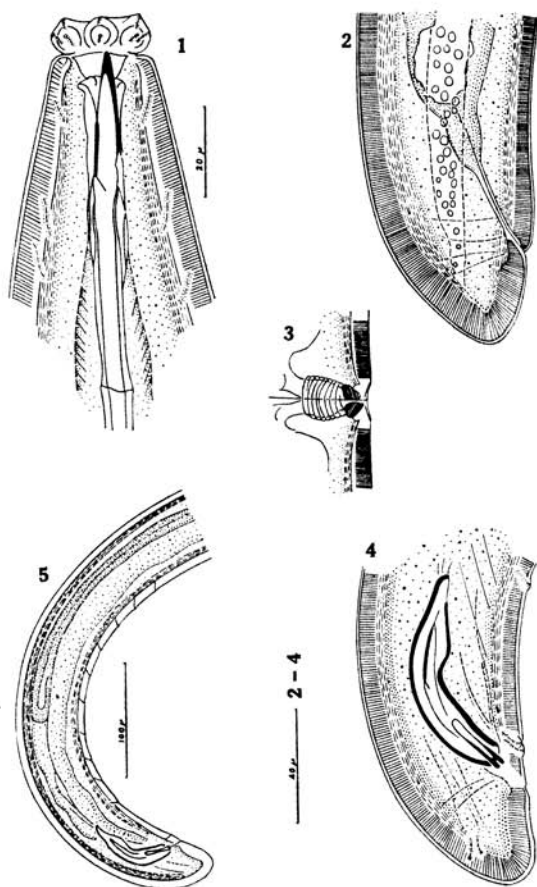


Fig. 1-5. *Makatinus macropunctatus* n.sp.

1. Head of allotype male; 2. Tail of holotype female; 3. Vulva and vagina; 4. Tail of allotype male; 5. Posterior part of male.

backwards they become indistinct. The ventromedian pore occurring opposite the nerve ring and hemizonid is exceptionally large.

Vulva a short longitudinal slit, bordered by two triangular cuticularized pieces. Vagina strongly muscular, reaching halfway across body. Details of uterus and oviductus not discernible, being obscured by the large, reflected ovary. Uterine egg present in holotype, measuring $136 \times 57\mu$, with the egg shell 2.5μ thick around the sides, 8μ around the ends.

Spicules $76-80\mu$ long, measured along the curved median line. Lateral guiding pieces 22μ long, the distal ends deeply notched and bluntly rounded. Supplements poorly developed, inconspicuous, consisting of an adanal pair and a ventromedian series of ten, starting opposite the anterior end of the spicules.

Type locality: In virgin grass veld at Tshokwane in the Kruger National Park, South Africa.

Type specimens: Holotype female on slide 5969, allotype and paratype male on slide 5965.

Diagnosis: *Makatinus macropunctatus* n.sp. differs from *M. punctatus* Heyns, 1965 and *M. capensis* Heyns, 1965 in the more prominent and strongly offset lip region, the more conspicuous radial lines and cuticular punctations, differently shaped tail and the smaller number of supplements in the male.

I am indebted to Miss D. Argo for assistance and for inking in the drawings.

REFERENCE

- Heyns, J. (1965) — On the morphology and taxonomy of the Aporcelaimidae, a new family of dorylaimoid nematodes. Entom. Mem. 10, Dept. Agric. Tech. Serv., 51 pp., 130 figs.