

SHORT COMMUNICATION

PARACOOPERIA NODULOSA IN A LOCAL DOMESTIC GOAT

SUMMARY: A male *Paracooperia nodulosa* was recovered from the small intestine of a slaughtered four-year-old female goat from Perak, Malaysia. Its morphology and measurements are provided. This constitutes a new record of *P. nodulosa* in the domestic goat.

Key words: *Paracooperia nodulosa*, goat, Malaysia

INTRODUCTION

Cooperia nodulosa was included in the genus *Paracooperia* Travassos (1937). In a revision of the genus, *Paracooperia nodulosa* was listed in the hosts of *Antilope cervicapra*, *Bubalus bubalis* (buffalo) and sheep only (Gibbons, 1978). *Paracooperia nodulosa* has been recorded in cattle and buffalo (Lancaster, 1957; Shanta, 1982; Mustaffa-Babjee, 1984; Sheikh-Omar *et al.*, 1985) but the nematode has not been reported in goats and sheep in Malaysia.

We report the finding of *P. nodulosa* in a local goat slaughtered in the Shah Alam abattoir, Malaysia. This is the first record of *P. nodulosa* in the domestic goat.

MATERIALS AND METHODS

In February 1988, 22 gastro-intestinal tracts of the local domestic goat were obtained from the Shah Alam abattoir and examined for parasites. The total worm counts were carried out according to the technique of Whitten (1971). Parasites recovered were fixed in 10 percent formalin, studied under lactophenol and preserved in 70 percent alcohol with 5 percent glycerol added.

Drawings and measurements were prepared using the camera lucida.

RESULTS AND DISCUSSION

One male nematode of the genus *Paracooperia* was recovered from one of 22 gastro-intestinal tracts studied. It was recovered from the small intestine of a local four-year-old female Kambing Katjang-cross from Perak, Malaysia. The measurements of the parasite are shown in Table 1.

The morphology (Fig. 1) and the measurements are consistent with those of *P. nodulosa* (Gibbons, 1978). No nerve ring is observed. Each of the spicules possesses one main stem and two shorter branches; one of the branches has eight ridges. The gubernaculum is absent whereas the genital cone is complex. Since all the species of the genus have ten longitudinal cuticular ridges arranged in similar crossed section pattern (Gibbons, 1978), we did not study the cross sections of this worm for we wanted it intact for future reference. The worm is likely an accidental infection as it is mainly a nematode of the buffalo.

The valid species of *Paracooperia* are *Paracooperia serrata*, *P. daubneyi*, *P. magabukae*, *P. nodulosa*, *P. raphiceri*, *P. devossi* and *P. horaki* (Gibbons, 1978; Boomker and King-sley, 1984; Boomker, 1986).

TABLE 1
Measurements of a male *Paracooperia nodulosa* from a local goat

Feature	Measurement (μm)
Length (mm)	4.0
Width, anterior to bursa	153
Cephalic vesicle, width	59
Excretory pore from anterior end	198
Cervical papillae from anterior end	186
Pre-bursal papillae, anterior of bursa	55
Oesophagus, length	456
Spicules	268

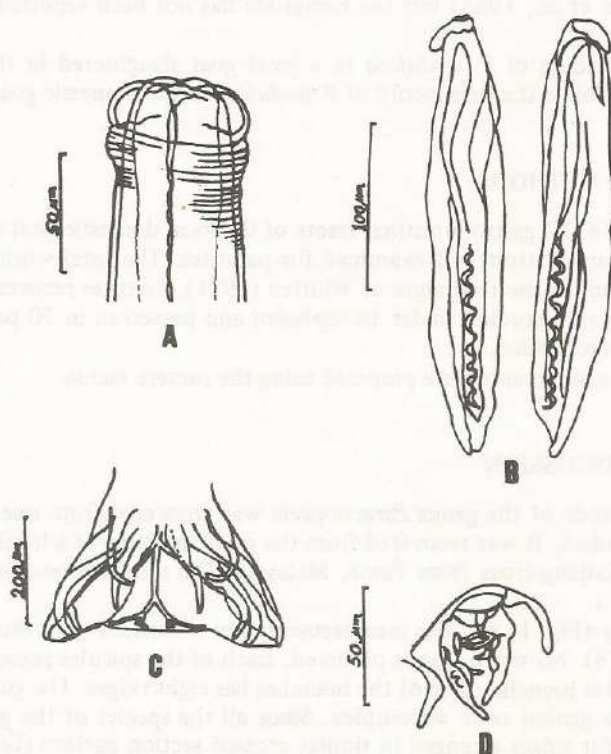


FIG. 1: *Paracooperia nodulosa*, male:
A. Anterior end showing the cephalic vesicle
B. Spicules showing the ridges
C. Bursa, ventral view
D. Genital cone, ventral view

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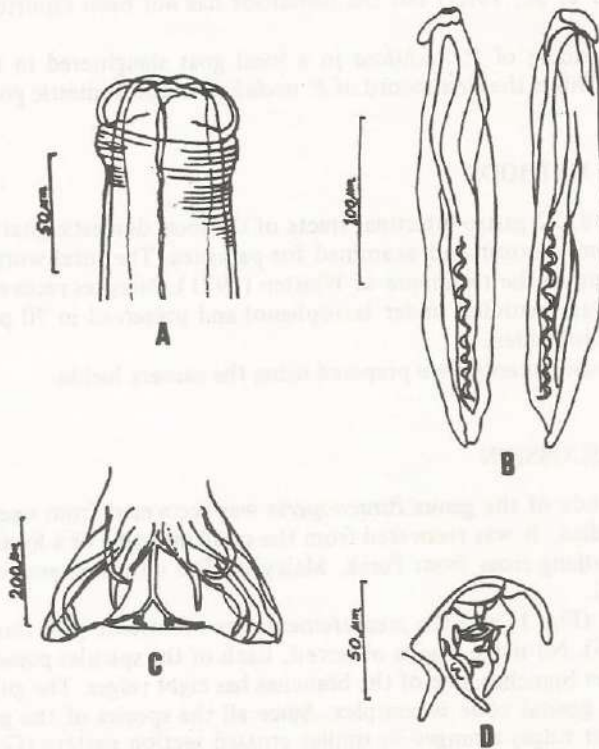


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- A. Anterior end showing the cephalic vesicle
- B. Spicules showing the ridges
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Besides the *P. nodulosa*, this particular animal was also infested with 75 *Haemonchus contortus* and 400 *Trichostrongylus axei* in the abomasum, 35 *Gaigeria pachyscelis* and ten *Capillaris longipes* in the small intestine and 200 *Oesophagostomum columbianum* in the large intestine. The body condition of the goat was fair.

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RINGKASAN

PARACOOPERIA NODULOSA DALAM SEEKOR KAMBING.

Seekor cacing jantan Paracooperia nodulosa telah diperolehi daripada usus kecil seekor kambing betina tempatan, berumur empat tahun yang telah disembelih dari Perak Darul Ridzuan. Bentuk rupa dan ukuran cacing ini diberikan. Ini merupakan catitan baru bagi P. nodulosa pada kambing.