Description of Males of *Parabronema pecariae* Ivaschkin, 1960 (Nematoda, Habronematoidea) Parasitizing Peccaries (Mammalia, Tayassuidae) in Brazil

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Nematodes studied herein and identified as Parabronema pecariae *were collected in 1936 in the States of Rio de Janeiro and Pará and in 1940 in the State of Mato Grosso do Sul, Brazil. This species was proposed, with basis on female specimens that had been described earlier as* Parabronema sp. *Although the presence of males of* P. pecariae *was previously reported in Brazil, their description was not provided. The present paper deals with the first complete morphometric data on male specimens of* P. pecariae *recovered from peccaries* (Pecari tajacu *and* Tayassu pecari).

Key words: nematodes - *Parabronema pecariae* - peccaries - mammals - Brazil

Vicente et al. (1997) in a general survey of nematodes parasitizing Brazilian mammals report to eight nematode species distributed in the genera *Dirofilaria* Diesing, 1861, *Eucyathostomum* Molin, 1861, *Gongylonema* Molin, 1857, *Nematodirus* Ramson, 1907, *Oesophagostomum* Molin, 1861, *Monodontus* Molin, 1861, *Hyostrongylus* Hall, 1921 and *Texicospirura* Chitwood & Cordero del Campillo, 1966, respectively and recovered from *Pecari tajacu* (Linnaeus, 1758) and *Tayassu pecari* (Link, 1758).

The present findings refer to the first description of males of *Parabronema pecariae* since the proposal of the species by Ivaschkin (1960) based on the description of two female specimens recovered from North American peccaries and designated as *Parabronema* sp. by Shwartz and Alicata (1933). Although the presence of both sexes of *P. peccariae* has been previously reported in a Brazilian peccary (Neto & Thatcher 1986), males of this species remain undescribed.

MATERIALS AND METHODS

Nematodes were collected by Travassos, Freitas and Lent in May, 1936, from eight specimens of *Pecari tajacu* Linnaeus, 1758 (= *Tayassu tajacu* Thomas) captured in the State of Rio de Janeiro; by Lent and Almeida in October, 1936, from five specimens of *Tayassu pecari* in the State of Pará and by the Instituto Oswaldo Cruz Commission in March, 1940, from two specimens of *Tayassu pecari* (Link, 1795) captured in the State of Mato Grosso do Sul.

Samples were preserved in Railliet & Henry's solution (0.85% NaCl solution: 93 ml; formaldehyde: 5 ml; glacial acetic acid: 2 ml) and deposited in the Helminthological Collection of the Oswaldo Cruz Institute (CHIOC). Processing of the helminths for study and illustrations were achieved as described elsewhere (Pinto et al. 1993). The *en face* glycerine jelly mounts were obtained according to the method of Anderson (1958). Measurements are in micrometers unless otherwise indicated. Classification of the nematodes follows Chabaud (1975) and the taxonomic status of the hosts is that proposed by Wilson and Reeder (1993).

RESULTS

Parabronema pecariae Ivaschkin, 1960
(Figs 1-7)

Morphometrics based on four males and five females. Habronematoidea, Habronematidae.
General: body slender, tapering at the anterior extremity. Mouth bordered by paired lateral lips, with a pair of amphids and median lips presenting four pairs of papillae. The cuticle of the head is thick and folded forming a circlet of six horseshoe-shaped auricular appendages, of which two are lateral, two subdorsal and two subventral. The buccal cavity is elongated longitudinally. The esopha-

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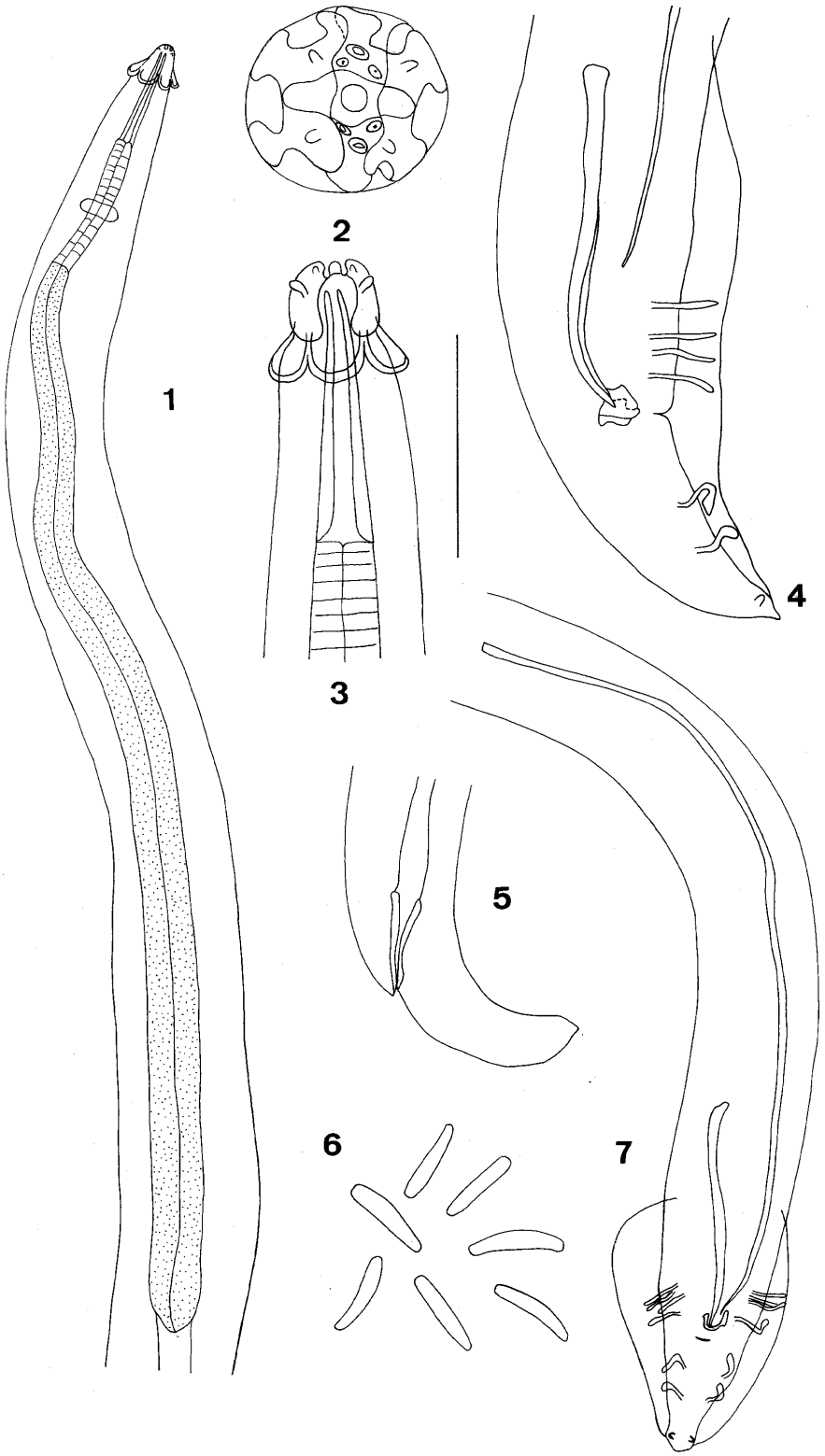

Parabronema pecariae. Fig. 1: anterior portion of female, lateral view. Fig. 2: head of male, *en face* view. Fig. 3: anterior extremity of male, lateral view. Fig. 4: posterior extremity of male, lateral view. Fig. 5: posterior extremity of female, lateral view. Fig. 6: eggs *in utero;* Fig. 7: posterior portion of male, ventral view. Bar (common to Figs 1-7) = 0.2 mm in Fig. 1, 0.04 mm in Fig. 2, 0.1 mm in Figs 3, 4, 5, 7 and 0.08 mm in Fig. 6

gus consists of a short, narrow anterior portion and a long, somewhat wider posterior portion.

Males (Figs 2-4, 7): body 7.99-8.75 mm long, 98-120 wide. Buccal cavity 90-110 long. Anterior portion of esophagus 120-160 and posterior 1.12-1.26 mm long. Distance from the posterior margin of the circlet to the anterior end of the body, 36-39. Nerve ring 130-180 from anterior extremity. Excretory pore not observed. Tail coiled ventrally, lateral alae near the posterior extremity. The spicules are markedly unequal, the left slender, 850-910 long, the right stouter, 270-280 long. Gubernaculum somewhat triangular, 36-43 long. Six pairs of pedunculate caudal papillae and one pair sessile. Four pairs are precloacal and three pairs postcloacal. Cloacal aperture 140 from the posterior extremity.

Females (Figs 1, 5, 6): body 14.28-22.78 mm long, 100-150 wide. Buccal cavity 90-140 long. Anterior portion of esophagus 160-220 and posterior 1.26-1.40 mm long. Distance from the posterior margin of the circlet to the anterior end of the body, 46-54. Nerve ring 190-220 from anterior extremity. Excretory pore not observed. The vulva is 3.43-4.90 mm from anterior extremity. Tail short, conically pointed or blunt and characteristically curved towards the dorsal side. Eggs elongate, with thin shell 32-36 long by 7-10 wide. Anal aperture 130-160 from posterior extremity.

Taxonomic summary

Hosts: *Pecari tajacu* (Linnaeus, 1758), *Tayassu pecari* (Link, 1795); common names: peccary, "pecari, caititu, cateto, queixada, porco-do-mato".

Sites of infection: intestine and stomach.

Localities: Belém and Cachoeira, PA, Estrela, RJ, Salobra, MS, Brazil.

Specimens deposited: CHIOC no. 34248 a-l (whole mounts derived from the sample 9904), 9028, 9029 (Cachoeira); 9707, 9893, 9894, 9895, 9904, 9905, 9906, 9907 (Estrela); 11874, 11930 (Salobra); 13488, 13489 (Belém) (wet material).

REMARKS

P. pecariae was proposed by Ivaschkin (1960) for female specimens parasitizing *Pecari a. angulatus* (Cope) (= *P. tajacu*) from Texas, USA, that were formerly figured and referred to as *Parabronema* sp. by Schwartz and Alicata (1933). Skrjabin and Sobolev (1963) present the same short description and original figures of Schwartz and Alicata (1933). Samuel and Low (1970), Corn et al. (1985) in studies of parasites of Texan peccaries (*Dicotyles tajacu angulatus* and *T. tajacu*, respectively), only refer to the occurrence of this species without any further comments either on sex or morphological aspects of the recovered nematodes. Males and females of *P. pecariae* were reported for the first time in Brazil by Neto and Thatcher (1986) in a study of parasites recovered from Amazonian peccaries. Nevertheless, full descriptions of the worms were not provided and data only refer to the length of body in both sexes. Vicente et al. (1997) overlooked this paper and only reported to the occurrence of *Parabronema bonnei* (van Thiel, 1925) Baylis, 1926 in Brazil, parasitizing the monkey *Allouatta caraya* (Humb.).

The present description adds new data to the knowledge of nematodes parasites of peccaries that have been introduced as alternative meat producers in the conventional Brazilian market by farm suppliers (Neto & Thatcher 1986).

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