

***Tetrameres (Tetrameres) spirospiculum* n. sp.**  
**(Nematoda, Tetrameridae) from the Buff-necked Ibis,**  
***Theristicus caudatus caudatus* (Boddaert) (Aves,**  
**Threskiornithidae)**

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*Tetrameres (T.) spirospiculum* n. sp. is proposed, taking into account the very unusual aspect of the longer spicule, which is slender and progressively spiralled from its middle, towards the distal end, that promptly distinguishes it from all the species of the genus.

Key words: nematodes – *Tetrameres (Tetrameres) spirospiculum* n. sp. – Ciconiiformes – birds – Brazil

This paper refers to the proposal of a new species of nematode parasite of a Brazilian ciconiid bird. The present findings add new data to partial results previously reported during a study regarding nematode parasites of Ciconiiformes avian hosts (Vicente et al. 1995).

**MATERIALS AND METHODS**

Six samples of nematodes recovered from *Theristicus caudatus caudatus* (Boddaert) between 1922 and 1940 during institutional scientific expeditions to the State of Mato Grosso do Sul, Brazil, were studied.

The samples were deposited in the Helminthological Collection of the Oswaldo Cruz Institute (CHIOC), preserved in vials with Railliet & Henry's solution (0.85% NaCl solution: 93 ml; formaldehyde: 5 ml; glacial acetic acid: 2 ml) and were processed for study as described elsewhere (Pinto et al. 1993).

The preparation of *en face* mounts was made according to the method of Anderson (1958). Photomicrography was obtained in a Zeiss mod. Axiophoto microphotographic system. Illustrations were made with a drawing tube connected to an Olympus light microscope. Measurements are in micrometers, unless otherwise indicated.

Classification of the nematodes regarding generic and subgeneric diagnoses follow Chabaud (1975) and confirmation of the taxonomic status of the host was based on Sick (1984).

**DESCRIPTION**

*Tetrameres (Tetrameres) spirospiculum* n.sp.  
(Figs 1a-h, 2)

Morphometrics: based on nine specimens, seven males and two females; Habronematoidea, Tetrameridae, Tetramerinae.

Males (Figs 1a, d, f, h): body 2.52-4.06 mm long, 110-150 wide, with thinly dispersed, feeble developed spines, easily overlooked. Mouth oval-elongate, lips absent, with three pairs of small teeth surrounding mouth; four small papillae in inner circle, two amphids and four large, globose papillae in outer circle. Buccal capsule with thick sclerotized lining, 10-14 long. Muscular and glandular esophagus 230-320 and 730-860 long, respectively. Nerve ring and excretory pore 140-210 and 190-250 from anterior extremity, respectively. Spicules very unequal in size and dissimilar in shape. The longer spicule is slender and presents from its middle, towards the distal end, a progressive twisting that increases gradually in a corkscrew spiral (Figs 1f, 2) and is 0.82-1.08 mm long. The shorter spicule is stout, alate, 150-160 long. Gubernaculum absent. Caudal papillae not observed. Cloacal aperture 10-14 from posterior extremity.

Females (Figs 1b, c, e, g): body (uncompressed) globose in midregion, tapering to a very small diameter at anterior extremity and bluntly rounded posteriorly, 3.23-5.00 mm long, 2.14-3.50 mm wide. Mouth round-oval, lips absent. Buccal capsule with thick sclerotized lining, 14 in diameter. Muscular and glandular esophagus 210-220 and 0.98-1.20 mm long, respectively. Nerve ring 120-140 from anterior extremity. Excretory pore

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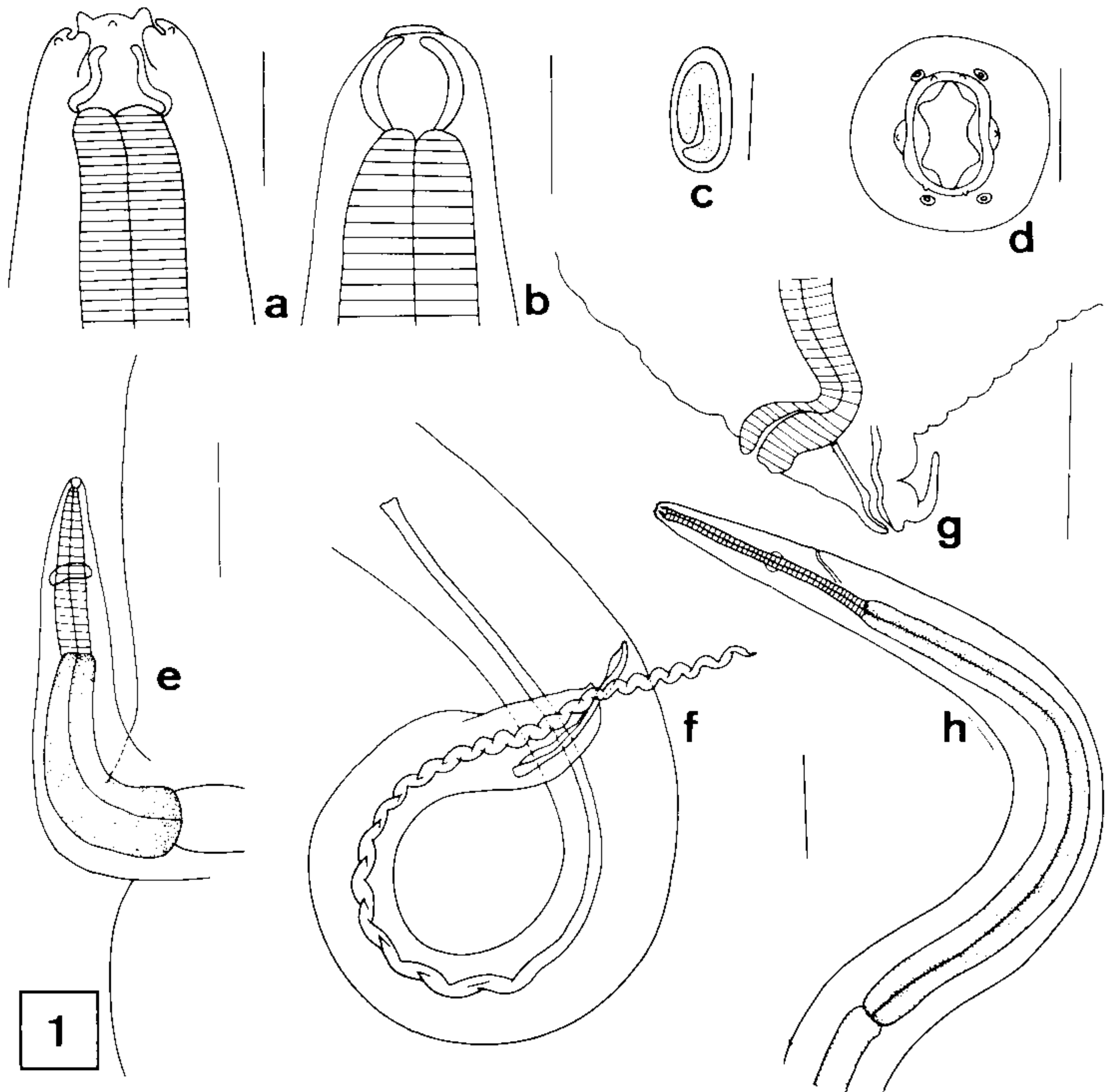


Fig. 1: *Tetrameres (T.) spirospiculum* n. sp. a: anterior extremity of male, lateral view. b: anterior extremity of female, lateral view. c: egg. d: oral aperture of male, *en face* view. e: anterior portion of female, lateral view. f: posterior portion of male, lateral view. g: posterior portion of female, lateral view. h: anterior portion of male, lateral view. Bars: 0.02 mm in Figs a-d; 0.1 mm in Figs e-h.

not observed. Uterus coiled, filling most of the body. Vulva 210-230 from anus, 350 from posterior extremity. Eggs oval-elongate, embryonated, without polar filaments, 39-43 long, 25 wide. Tail, not always visible, may be confined within body folds, is 97-110 long. Anus 140 from posterior extremity.

**Taxonomic summary**

Type host: *Theristicus caudatus caudatus* (Boddaert); common name: buf-necked ibis ("curicaca")

Site of infection: gizzard (females in proventricular glands, males free in the lumen)

Type locality: Salobra, State of Mato Grosso do Sul, Brazil

**Etymology:** the specific name derives from the Latin *spira* + *spiculum*, meaning "spiralled spicule"

**Specimens studied:** CHIOC no. 33, 173 a (holotype), 33, 186 c (alotype), 33, 173 b-c (paratypes), 33, 185 a-b, 33, 186 a, b, d-f, 33, 267 a-e (whole mounts), 8, 466, 11, 501, 11, 710, 11, 959 (wet material) (vouchers).

**REMARKS**

Actually, the genus *Tetrameres* Creplin, 1846, is represented by species grouped in two subgenera, namely *Tetrameres* and *Microtetrameres*, according to Chabaud (1975) on basis of the body shape in females, globular or twisted in tight spi-



Fig. 2: *Tetrameres (T.) spirospiculum* n. sp.: posterior portion of male, lateral view. Bar: 0.05 mm.

ral and the presence or absence of cuticular spines in the males, respectively.

The species of the genus recovered from Ciconiiformes hosts are: *Tetrameres (Tetrameres) ardeae* Shigin 1953, *T. (T.) ardamericanus* Boyd 1966, *T. (T.) aspinosa* Pence 1973, *T. (Microtetrameres) canadensis* Mawson 1956, *T. (T.) coccineus* (Seurat 1914) Travassos 1917, *T. (T.) cochleariae* Travassos 1917, *T. (T.) cubanus* Viguera 1941, *T. (T.) deccani* Ali 1970, *T. (T.) fermini* Viguera 1935, *T. (T.) fissispinus* (Diesing 1861), *T. (T.) gynaecophilus* (Molin 1858) Travassos 1914, *T. (T.) micropenis* Travassos 1915, *T. (T.) microspinosus* Viguera 1935, *T. (T.) schigini* Oschmarin 1956, *T. (M.) spiralis* Seurat 1915 and *T. (T.) williamsi* Bush et al. 1973 (Skrjabin & Sobolev 1963, Boyd 1966, Ali 1970, Bush et al. 1973, Pence 1973).

The referred papers provide complete morphometric data on these species.

For the peculiar and unusual shape of the longer spicule, *Tetrameres (T.) spirospiculum* n. sp. is very remarkable and differs from all the spe-

cies of the genus, including those reported in other birds than the Ciconiiformes.

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