

FIRST REPORT OF *THELAZIA CALIFORNIENSIS* PRICE  
(NEMATODA, THELAZIOIDEA) IN SOUTH AMERICA FROM THE  
EYES OF A BRAZILIAN DEER, *MAZAMA GOUAZOUIPIRA* (FISCHER)  
(MAMMALIA, CERVIDAE)

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ABSTRACT. Data on *Thelazia californiensis* Price, 1930 are presented. The importance of this eye nematode is also related to a few human cases due to this parasite in the USA. This is the first report of *T. californiensis* occurring in a South American host, *Mazama gouazoupira* (Fischer, 1814), which is also a new record for the species.

KEY WORDS. Nematode, *Thelazia californiensis*, mammal, deer, Brazil

The finding of a single male worm of *Thelazia californiensis* Price, 1930 in the eyes of a Brazilian mammal, justifies the present notification, taking into account that many species remain unreported, if they are overlooked during necropsies scheduled to attend quantitative recoveries.

Thus, the report of *T. californiensis* also referred in cases of human thelaziosis and occurring for the first time in a South American host is presented.

The nematode sample was collected from the eyes of the single specimen of *Mazama gouazoupira* (Fischer, 1814) necropsied in Tapajós, State of Pará, in the middle of the 1940s and was fixed in a 10% formaldehyde solution. Processing of the helminth for study, photomicrography and illustrations were obtained as described elsewhere (PINTO *et al.* 1993; PINTO & VICENTE 1995). Measurements are in micrometers unless otherwise indicated. NHR and NGR refer to New Host Record and New Geographical Record, respectively.

Thelazioidea, Thelaziidae, Thelaziinae

*Thelazia californiensis* Price, 1930

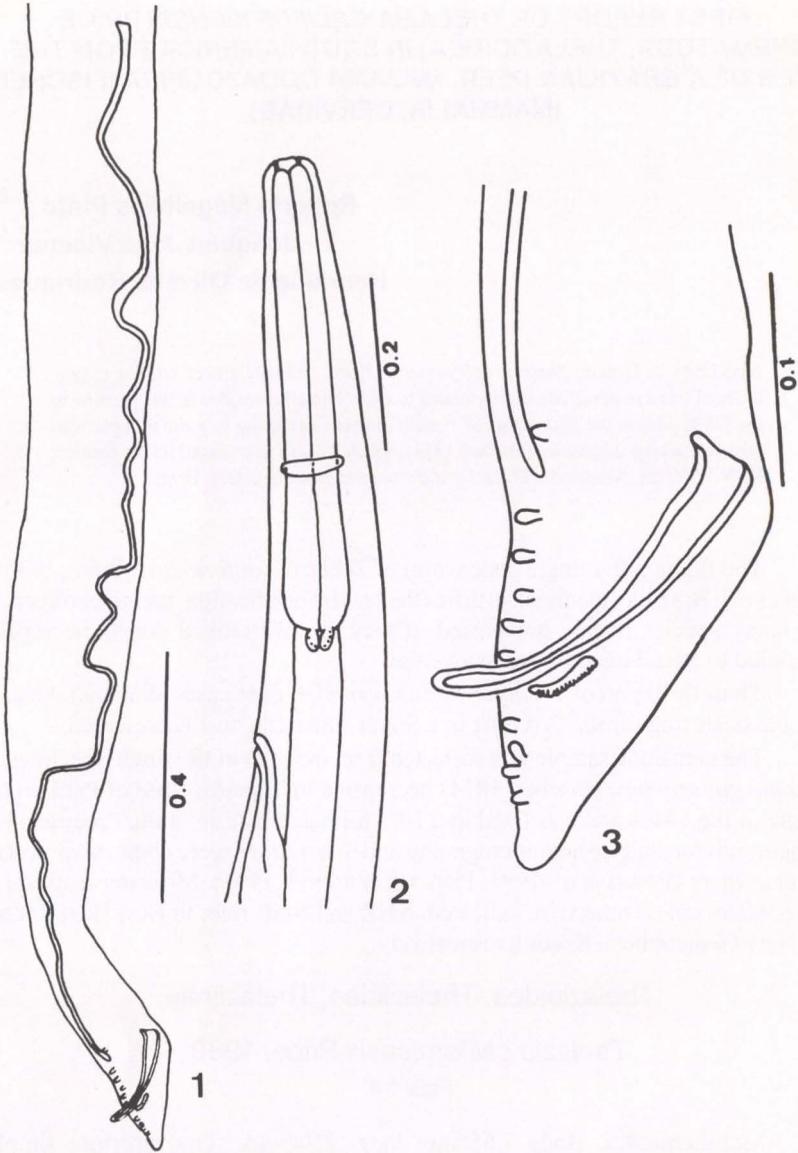
Figs 1-4

Morphometrics. Body 7.65 mm long, 250 wide. Oral aperture simple, surrounded by six small and inconspicuous papillae. Buccal capsule 14 long, 21 wide. Esophagus 380 long. Nerve ring 230 from anterior extremity. Left spicule long, slender, wrinkled in the fixed specimen, 2.01 mm long. Right spicule stout,

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Figs 1-3. *Thelazia californiensis*. (1) Posterior portion of male, lateral view; (2) anterior portion of male, lateral view; (3) posterior extremity of male, lateral view. Bars in millimeters.

160 long. Gubernaculum 25 long with a spongy aspect, easily overlooked (Fig. 4). Ten pairs of pedunculate caudal papillae. Caudal alae absent. Cloacal aperture, 90 from posterior extremity.

Host: *Mazama gouazoupira* (Fischer, 1814) – NHR

Site of infection: surface of the eyeball

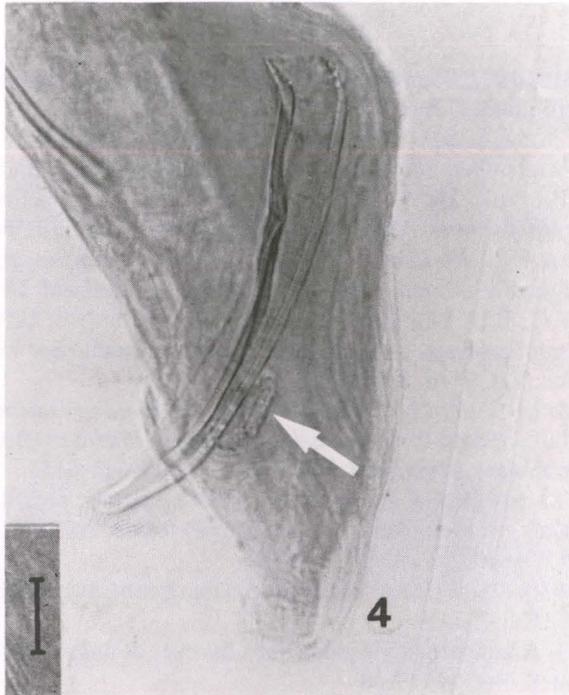


Fig. 4. *Thelazia californiensis*. (4) Posterior extremity of male, lateral view. Gubernaculum is indicated by the arrow. Bar = 0.03 mm.

Locality: Tapajós, State of Pará, Brazil – NGR

Other localities: several counties in California, USA.

Specimen deposited: Helminthological Collection of the Oswaldo Cruz Institute no. 33,736 (whole mount).

*Thelazia californiensis* was proposed by PRICE (1930) on basis on specimens recovered from the eyes of dogs in the USA. Although the full description of the species only appeared later (PRICE 1931), the valid year is undoubtedly 1930, in spite of some authors refer erroneously to 1931 (HOSFORD *et al.* 1942).

*Thelazia californiensis* has been reported parasitizing the exterior region of the eyes of dogs, deers and less commonly the eyes of several mammals, including man (PARMELEE *et al.* 1956). The third-stage infective larvae occurring in muscid flies, migrate to the head of the fly, which they leave when the latter feeds about the eyes of the definitive host. Female worms produce large numbers of eggs, which embryonate “in utero” into active fully differentiated first-stage larvae which are deposited into the lacrimal secretions of the host, to be ingested by the flies during the feeding process (ANDERSON 1992).

The infection of *T. californiensis* in man generally produces rather mild symptoms, related to conjunctivitis and excessive lacrimation (KOFROID & WILLIAMS 1935; HOSFORD *et al.* 1942; KIRSCHNER *et al.* 1990).

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