

FIRST FINDING OF NEMATODIRUS ROSCIDUS RAILLIET, 1911 (NEMATODA) IN CZECHOSLOVAKIA

During investigations of the helminth fauna of *Sika nippon* performed in the years 1970—1973, the nematode *Nematodirus roscidus* Rail., 1911 was found for the first time in several localities of Czechoslovakia.

The parasites were recovered in post mortem from the abomasum and the small intestine of 10 out of the 86 animals examined. The place of origin of the infected animals were areas in central and western Bohemia (game reservation Lány, Heřmanův Městec and the environs of Konstantinovy Lázně) and in S.-W. Moravia.

In view of the fact that the parasite had not been recovered previously from any game species of Czechoslovakia and also that *Sika nippon* is a new host, the text of this communication contains a description of the nematode and drawings of several of its diagnostic signs.

Body filiform, cuticle with numerous longitudinal striae. Mouth surrounded by 6 small papillae, cervical papilla absent. Cuticular cavity with transverse striation, present on the head. Male: Overall length 11–15 mm, maximum width 0.162–0.188 mm. Length of cephalic

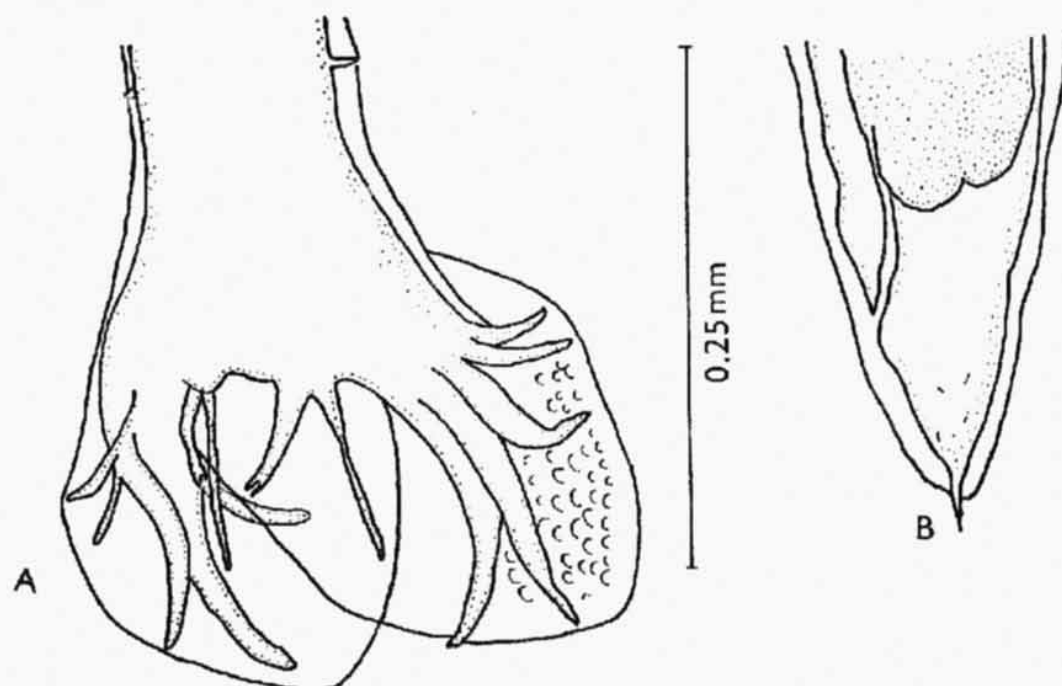


Fig. 1. *Nematodirus roscidus*: A — male bursa; B — posterior end of female.

The first description of the species was given by Railliet from *Cervus elaphus* in France (Travassos L., Monogr. Oswaldo Cruz 1: 282–283, 1937). Its incidence in *Dama dama*, *Capreolus capreolus*, *Cervus elaphus* and *Ovis musimon* has been recorded from Poland, Yugoslavia and Holland (Drózd J., Acta parasit. Polon. 14: 1–13, 1966; Petrović Z., Bordoški A., Popović S., VII^e Congr. U. Int. Biol., Gibier, 449–453, 1967; Jansen J., Van Haaften J., Bull. Wildlife Disease Assoc. 4: 21, 1968). All these reports refer to an occasional finding only. R. Wetzell and W. Rieck recorded in their monograph „Krankheiten des Wildes“ (Hamburg 1972) that the species parasitizes *C. elaphus* and *Rupicapra rupicapra*.

vesicle 0.130–0.138 mm. Maximum length of oesophagus 0.502 mm. Bursa bilobate. Ventral ribs short extending in parallel direction to one another. Posterolateral rib long, separated widely from externodorsal rib. The later bifurcates in its distal end and attains the bursa margin. Spicules thin, fibrillar, close to each other, length 0.902–0.963 mm, their distal end smooth without lateral denticles, their termination sharply pointed, covered with a fine, pointed membrane without lanceolate enlargements similar to those in *N. helveticus*. Gubernaculum absent.

Female: Overall length 22–30 mm, maximum width 0.220–0.277 mm. Maximum length of cephalic vesicle 0.140 mm. Oesophagus

length 0.749 mm. Posterior end attenuated-conically and terminated in a short spine

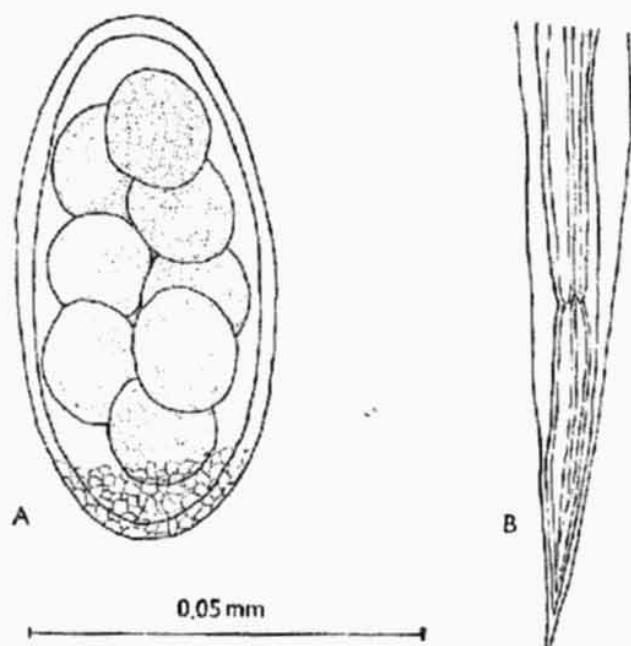


Fig. 2. A — egg with characteristic superficial structure; B — spicules.

(0.013—0.015 mm). Anus at 0.079—0.088 mm from posterior extremity. Vulva situated in posterior third of body at 9.0—9.4 mm from posterior end of body, by contrast to *N. helveticus* in which the vulva is situated at 1—1.2 mm from posterior body end. Eggs oval with widely rounded poles typical of the genus *Nematodirus*, with 6—8 blastomeres. Structure of egg shell fine, irregular, size of eggs 0.176—0.180 × 0.088—0.098 mm.

It is of interest that the nematodes were located mainly in the abomasum, although generally the small intestine is the typical site of location in other hosts. In spite of this atypical location the worms recovered were sexually mature and produced eggs. An occasional specimen only was found in the small intestine.

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