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faire une recherche systématique de ce cestode chez les enfants en Afrique au sud du Sahara, et nous serions heureux d'étudier tous les matériaux que l'on voudrait bien nous faire parvenir.

Bibliographie.

- Baer, Jean G. (1939). Proc. 3rd Int. Congr. Microbiol. New York, p. 453.
Baylis, H. A. (1949). Trans. R. Soc. Trop. Med. & Hyg. 42, 531-542, 5 fig.
Fain, Alex. (1950). Bull. Soc. Path. Exot. 43, 438-443.

On a New Species of *Trichuris* from Okapi.

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(Received November 19th, 1954.)

Leiper (1935) mentioned the occurrence of *Trichuris giraffae* (Diesing, 1851) in the Okapi which died in 1935 in the Zoological Gardens, London. Van den Berghe (1937), presumably referring to the same collection, mentioned *Trichuris skrjabini* Baskakov, 1924, as having occurred in the Okapi that died in the Zoological Gardens, London. Both the foregoing authors failed to give any descriptions of the species. Baer (1950), in his critical studies on the parasites of Okapi, has recorded a useful description of the *Trichuris* species and has placed the specimens under *Trichuris discolor* (v. Linstow, 1906), basing his determination on the length of spicules which measure 1.7 mm. long and 10 μ in diameter. The size of the spicule as the determining factor for the species was based on strong grounds by Baer, since it is now generally agreed that it is the most dependable factor in the species of the genus *Trichuris*. The placing of the species thus under *T. discolor* seems to have been the only logical alternative in view of the paucity of details on the morphology of the species. The species under description which is presumed here to refer to *T. giraffae* of Leiper (1935), *T. skrjabini* of Van den Berghe (1937), and *T. discolor* of Baer (1950), is distinguishable from *Trichuris parvispiculum* Ortlepp, 1937, and *T. skrjabini* Baskakov, 1924, by the greater length of its spicule and from *T. discolor* by the shape of its sheath. The spicules in *T. parvispiculum* and *T. skrjabini* have been recorded to measure about 1 mm. long, respectively, by Ortlepp (1937), and Baskakov (1924), Zarnowski (1929), and Skrjabin and Sulc (1937). *T. skrjabini* and *T. parvispiculum* are parasites of sheep and goats, while *T. discolor* is restricted to cattle and buffaloes. The spicular sheath in *T. discolor* is similar to that of *T. globulosa* in consisting of a proximal tubular shaft and a distal bulb, while in *T. parvispiculum* and *T. skrjabini* the spicular sheaths are, while disregarding the mouth piece, club-shaped. *Trichuris gazellae* Gebauer 1933, while possessing a club-shaped sheath, has a spicule measuring about 4 mm. long.

The species under description was found to be present in all the five collections of trichurids from Okapi from Buta, Belgian Congo, and is here named after Prof. Jean G. Baer, through whose advice and kind cooperation the present work was made possible.

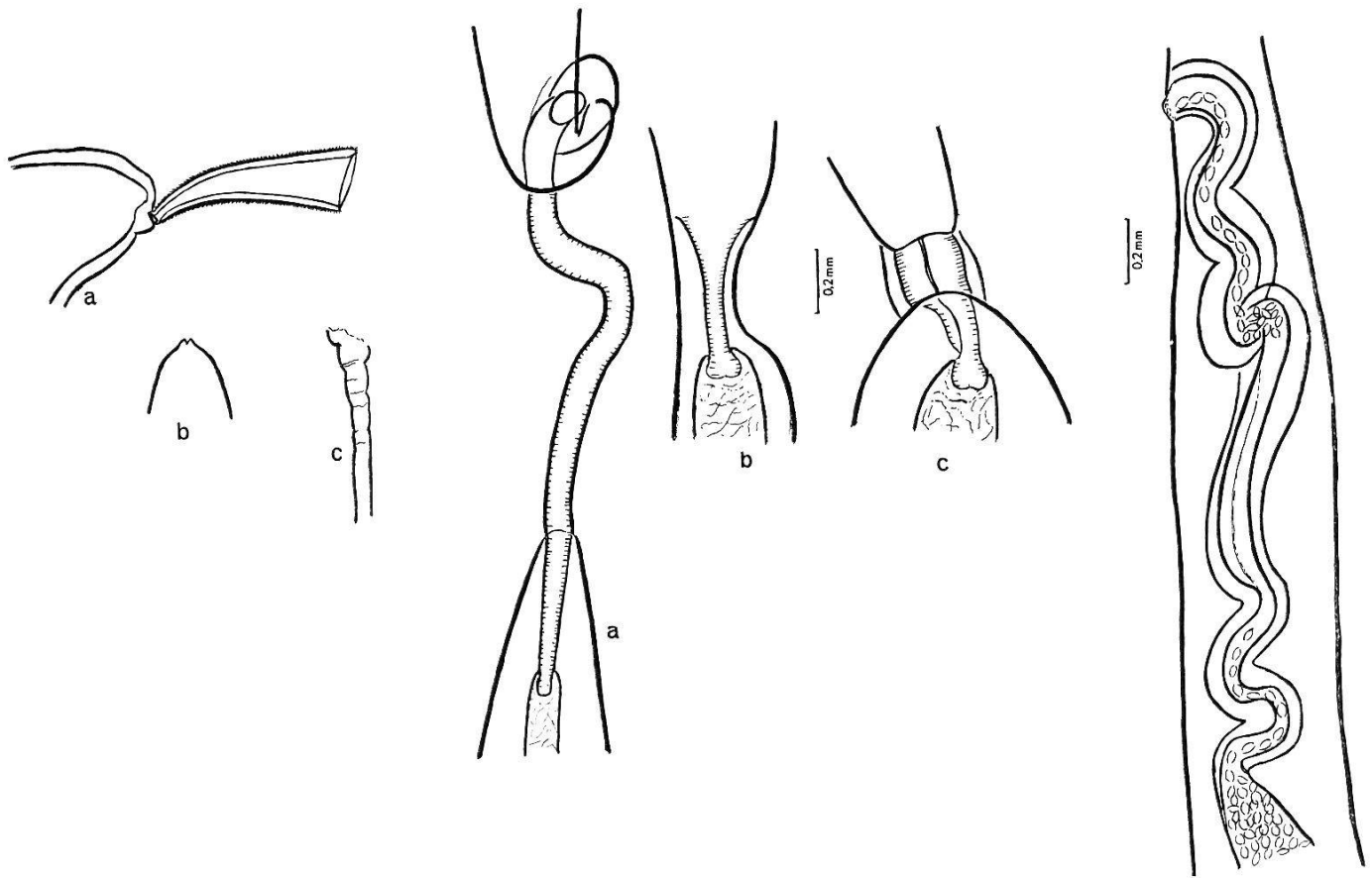


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 1. *T. baeri*. a) Hind end of male; b) Head end; c) Proximal portion of spicule.
 Fig. 2. Junction of vas deferens and ejaculatory duct, in a) *T. baeri*; b) *T. skrjabini*; c) *T. discolor*.
 Fig. 3. *T. baeri*, vagina.

Trichuris baeri n. sp.

Male: Anterior portion measure about 23 mm. and the posterior thick about 17 mm. In the specimens in which the anterior portion is damaged, the thick posterior portions measure 19-22 mm. Roughly the posterior portion measures two-thirds the length of the anterior portion. The body width is greatest near the junction of vas deferens and ejaculatory duct, measuring 0.56-0.64 mm. The body tapers gradually anteriorly and measures 0.32-0.36 mm. near the junction of oesophagus with the intestine. A double row of plaques or vesicles is present along the bacillary band in the first half of the anterior thin portion and a pair of prominent conical papillae are located at the hind end.

The spicule measures 1.68-1.76 mm. long and 0.008-0.009 mm. broad at about the middle portion, ending posteriorly in a bluntly rounded end. The sheath in the drawing (fig. 1 a) is only partially extruded and is seen to increase in width posteriorly. A fully extruded sheath has been drawn by Baer (1950) (Fig. 51). The spines on the sheath are closely set and backwardly directed in the proximal portion and decrease in size posteriorly. The long mouth-piece is apparently devoid of spines.

The genital organs are comparatively greater in length than either in *T. discolor*, *T. parvispiculum*, or *T. skrjabini*. The vas deferens measures 4-6.4 mm. and the muscular ejaculatory duct is 8.4-11 mm. long. The anterior end of the

ejaculatory duct is prolonged in the shape of a characteristic cone. The cloaca is 4-5.2 mm. long and the spicular tube joins it 3.2-3.7 mm. from the posterior end. A comparison of the latter measurements with those of *T. discolor* and *T. parvispiculum* is reproduced below. The tubular sphincter joining the vas deferens and ejaculatory duct (fig. 2 a) is, unlike those of *T. discolor* and *T. skrjabini*, very long and characteristic.

Species	Length of cloaca mm.	Distance from the posterior end at which spicular tube joins the cloaca mm.
<i>T. baeri</i>	4.0 -5.2	3.2-3.7
<i>T. discolor</i>	0.95-1.9	0.5-0.75
<i>T. parvispiculum</i>	1.2 -1.7	0.4-0.55

The testis starts near the commencement of the cloaca, is nearly straight in the region of the distal half of the ejaculatory duct, but is closely convoluted in the rest of its anterior course.

Female: Anterior portion measure 26-36 mm. long and the posterior 14-18 mm. long. The posterior portion is comparatively long and slender and has a maximum width of 0.6-0.64 mm. The vagina shows an inconspicuous protrusion at the vulva preceded by two proximal loose curves. The latter are preceded by a highly characteristic dorsally flexed curve showing a dilated lumen, the egg reservoir. This feature of vagina is a characteristic of the species and was found constant in more than fifty females examined. The egg reservoir is preceded by a few rather close curves before joining the uterus. The vagina occupies a portion of the body measuring 1.6-1.8 mm. long. The eggs are melon-shaped with an operculum on either end and measure 0.05-0.052 × 0.023-0.026 mm.

References.

- Baer, Jean G.* (1950). Etude critique des helminthes parasites de l'Okapi. — Acta Tropica, 7, 164-186.
- Baskakov, V. P.* (1924). Parasitic worms in Turkestan camels. — Rep. State Vet. exper. Inst., 2, 92-105 (in Russian).
- Leiper, R. T.* (1935). Proc. Zool. Soc., London, Abstract No. 389.
- Ortlepp, R. J.* (1937). Whipworms from South African ruminants. — Onderstepoort J. vet. Sci. & Anim. Ind., 9, 91-100.
- Skrjabin, K. J. & Šulc, R.* (1937). Gelmintogi krupnogo rogatogo skota i ego molodnjaka. Moscow.
- Van den Berghe, L.* (1937). Contributions à l'étude des parasites de l'Okapi. (Troisième partie). — Rev. Zool. Bot. afric., 30, 117-139.
- Zarnowski, E.* (1949). Contributions à la connaissance des nématodes parasites du tractus intestinal chez les brebis en Pologne. — Fragmenta faun. Mus. Zool. Polon., 6, 35-93, No. 3.