

avec une massue de quatre articles, de structure normale : l'article 2 est le peu plus long des sept premiers, les articles 7-11 sont d'un volume identique. Le pronotum (fig. 12) est très large, peu convexe à bords arrondis et le maximum de largeur étant atteint dans le tiers postérieur de sa longueur; cinq fovéoles bien individualisées ornent la base du pronotum. Élytres amples, à peine deux fois et demie aussi longs que larges, avec le maximum de largeur vers le milieu; deux fovéoles sur chaque élytre sont à leur bases ainsi qu'un calus huméral saillant. Dessous normal. Pattes robustes, tibias légèrement explanés vers leur tiers postérieur, puis rétrécis à la base.

Organe copulateur coudé, bilobé (fig. 13) avec une ou deux soies aux paramères.

L'identité de cette espèce est très facile à établir. La structure des yeux, des fovéoles prothoraciques et élytrales, de l'organe copulateur mâle font autant de caractères typiques du genre *Euconnus* (s. str.). Cette espèce sera à rapprocher dans une révision future des *E. congoensis* et *E. micrus* originaires du Congo Français, c'est à dire, non loin de Sierra Leone.

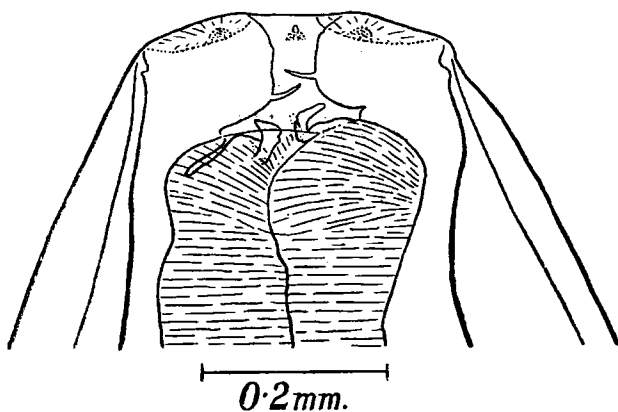
LX.—*A new Species of Oxyuris [Nematoda] from a Rhinoceros.* By H. A. BAYLIS, M.A., D.Sc., Department of Zoology, British Museum (Natural History).

THE species to be described in this paper was obtained from an African rhinoceros (*Rhinoceros bicornis*) in the Karamoja district of Uganda, and specimens of it were kindly forwarded to the writer by the Senior Veterinary Research Officer at Entebbe. The type-specimens will be deposited in the British Museum (Natural History).

Oxyuris karamoja, sp. n.

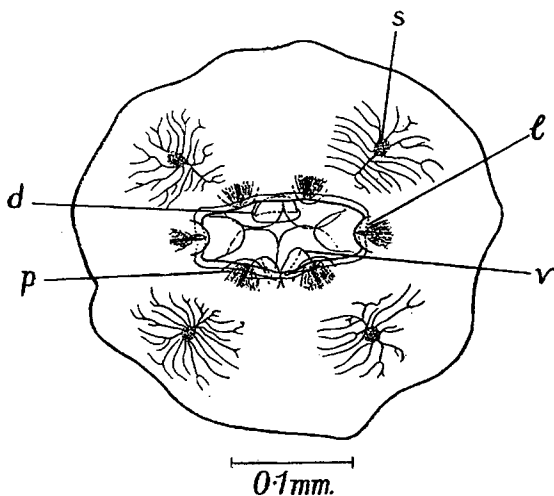
The material included one male and seventeen females, of various sizes and degrees of maturity. The length of the male is about 14 mm. and its maximum thickness 0.8 mm. The largest female measures 68 mm. in length and about 2.6 mm. in maximum thickness. In the smallest female the uterus contains no fully-formed eggs,

Fig. 1.



Oxyuris karamoja, sp. n. Anterior extremity of female, viewed from left side.

Fig. 2.



Oxyuris karamoja, sp. n. Anterior extremity of female, viewed *en face*.

d, dorsal tooth ; *l*, lateral papilla ; *p*, internal papilla ;
s, subdorsal papilla ; *v*, subventral tooth.

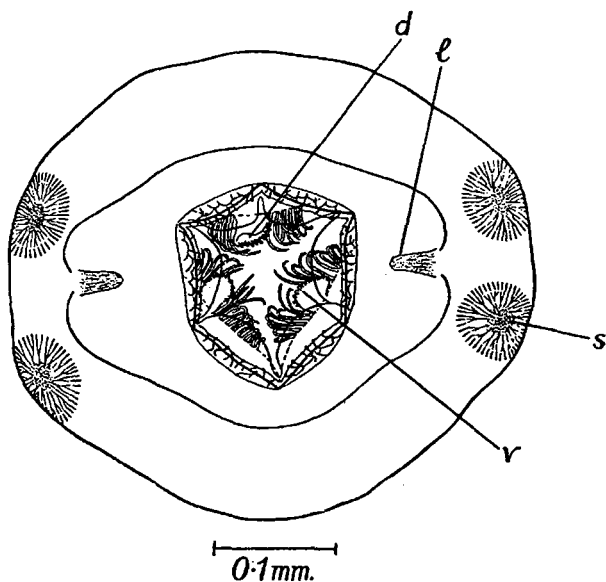
but fertilization had taken place, as shown by the presence of a mass of cement over the vulva. This specimen measures 25 mm. in length and 1.13 mm. in thickness. The smallest female with fully-formed eggs is just over 30 mm. long and about 1.5 mm. thick.

The cuticle shows coarse transverse striations throughout, the intervals between them, at about the middle of the body, reaching about 0.055 mm. in the male and from 0.09 to 0.24 mm. in the females, according to their size. The cuticle near the anterior end is slightly inflated, or, rather, the subcuticular layer is separated from it by a space. The characters of the anterior extremity (figs. 1 and 2) differ somewhat from those of *O. equi* (fig. 3). The aperture of the mouth, instead of being hexagonal, is almost oblong, with its longer axis latero-lateral. The lateral papillæ (fig. 2, *l*) are similar to those of *O. equi* (fig. 3, *l*), but their terminations are situated on the lateral borders of the mouth instead of some distance away from it. The four submedian papillæ (fig. 2, *s*) are somewhat similar in structure to those of *O. equi* (fig. 3, *s*) and have similar branching intracuticular processes radiating from a central point, but they lack the regular peripheral circles of rod-like rays. In addition to these organs there are four internal papillæ (fig. 2, *p*), two subdorsal and two subventral, with terminations projecting on the lining of the buccal cavity, at a deeper level than the lateral papillæ. The existence of these internal papillæ in *O. equi* does not appear to have been described, nor has the writer been able to observe them in that species.

The cuticle lining the mouth-aperture appears to be smooth. This is a further point of difference from *O. equi* (fig. 3), in which the cuticle bordering the mouth shows a delicate network of raised ridges. This structure seems to have been observed by Flögel (1869), who describes it as a "zellenartige Zeichnung," but is more accurately described by Martini (1916). Within the aperture there are, as in *O. equi*, six delicate, more or less semicircular cuticular plates (two lateral, two subdorsal, and two subventral) projecting inwards from the lining of the buccal cavity. The latter has a depth of about 0.05 mm. in the male and 0.1-0.15 mm. in the female. In the female only there are three hook-like teeth

projecting into it from its floor, which is formed by the cuticular covering of the anterior end of the oesophagus. These teeth are broad and flattened when seen in frontal view (fig. 2, *d*, *v*), and curve outwards at their free extremities (fig. 1). Unlike the teeth of *O. equi* (fig. 3, *d*, *v*) they appear to be quite smooth and without denticulations. The cuticular bristles which, in the female of *O. equi*, originate at the same level as the teeth, and project into the buccal cavity, are here absent.

Fig. 3.



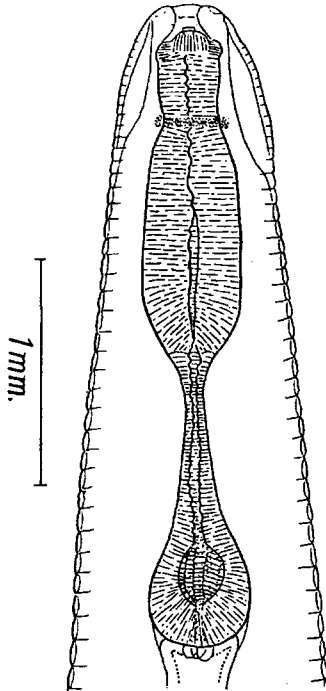
Oxyuris equi. Anterior extremity of female, viewed *en face*.

d, dorsal tooth; *l*, lateral papilla; *s*, subventral papilla; *v*, subventral tooth.

The oesophagus (fig. 4) is of a very characteristic shape. Its total length, measured from the anterior extremity, is 1.75 mm. in the male and about 2.5–3 mm. in the female. Its anterior portion is somewhat flask-shaped, being narrow near the mouth and expanding rather suddenly just behind the nerve-ring. This is in strong contrast to the shape of this portion of the oesophagus

in *O. equi*, the widest portion of which is near its anterior end. This anterior portion, in *O. karamoja*, measures 0.85 mm. in length in the male and 1.3–1.55 mm. in the female, and attains a maximum width of 0.32 and 0.43–0.54 mm. respectively. It is followed by a bulb with an elongate, narrow neck. The length of the whole bulb is about the same as that of the anterior portion (0.85 mm.

Fig. 4.



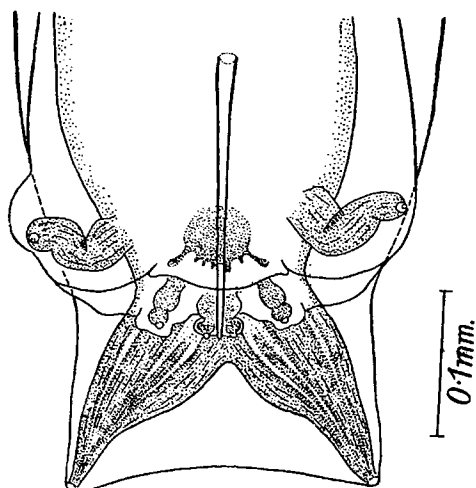
Oxyuris karamoja, sp. n. Anterior end of female; dorsal view.

in the male and 1.2–1.5 mm. in the female). In the male the maximum diameter of the bulb is 0.33 mm., in the female 0.44–0.6 mm. The bulb contains a valvular apparatus with a relatively thick, transversely corrugated cuticular lining. The nerve-ring surrounds the anterior portion of the œsophagus at a distance of about 0.3 mm.

in the male, and about 0.5 mm. in the female, from the anterior extremity. The excretory pore is situated far behind the oesophageal bulb, at a distance of 4.5 mm. in the male, or 7.8-5 mm. in the female, from the anterior end. In the female it is about 1.5-3.5 mm. in front of the vulva.

The form of the caudal end in the male (fig. 5) is similar to that of *O. equi*. The papillæ have the same arrangement, there being one pair of preanal papillæ with long, stout peduncles, and three pairs of postanal papillæ.

Fig. 5.



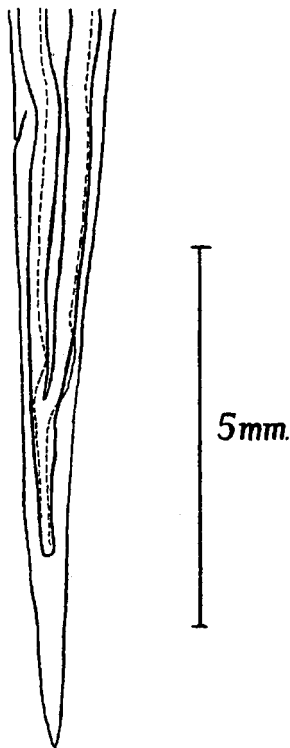
Oxyuris karamoja, sp. n. Posterior end of male; ventral view.

Of these the most posterior pair are very large, with stout, conical peduncles supporting a rectangular cuticular expansion. The two smaller pairs are close to the cloacal aperture, the inner pair on a process which is grooved ventrally and forms a support for the spicule when the latter is protruded. Ehlers (1899) describes and figures a median preanal papilla in *O. equi*. The writer has been unable to confirm the existence of this papilla in either species, or of the two other papilla-like structures figured in front of it by Ehlers, but not mentioned in his text. The anterior lip of the cloacal aperture contains a parenchymatous structure with a fringe of rays or processes

on its posterior border. The spicule, in the single specimen available, measures about 0.21 mm. in length. Its extreme tip is possibly missing.

The tail of the female (fig. 6) shows a similar variation in length to that of *O. equi*. This variation, as in that species, is evidently correlated with the age and maturity of the specimen, the tail becoming longer as more space

Fig. 6.



Oxyuris karamoja, sp. n. Posterior end of female; lateral view.

is occupied by the developing uterus. In the smallest female, without eggs, the anus is situated at 2.4 mm. from the posterior extremity. In other specimens the tail varies from 6 to 22 mm. in length. There is no constriction marking it off from the body, the latter beginning to taper gradually some distance in front of the anus.

The female genital organs are similar to those of *O. equi*. The vulva is situated at 7.5 mm. from the anterior end in the immature female, and at 9–12 mm. in older specimens. The muscular vagina runs forward at first from the vulva, then doubles back and passes into the long, straight egg-reservoir. This extends to just behind the anus in the immature worm, and to within 2–3 mm. of the tip of the tail in older females, maintaining this relationship as the tail elongates. The growth of the tail thus appears to take place between this point and the anus. The arrangement of the uterine branches and ovarian tubes is the same as in *O. equi*. The eggs are also similar, the shell having an operculum at one end. They measure 0.086–0.094 mm. \times 0.038–0.04 mm. The shell is sometimes regularly oval, sometimes more pointed at one end than at the other. In the latter case the operculum is at the broader end.

As has been shown in the foregoing description, this species differs in several respects from *Oxyuris equi* (syn. *O. curvula*), the common form occurring in Equidæ, though it bears a very close superficial resemblance to it. Mönnig (1927, p. 224) has recorded the occurrence of *O. equi* in *Rhinoceros bicornis* in Zululand, but gives no description of the specimens. It seems possible that these may actually have been examples of the species here described as *O. karamoja*. The other species at present assigned to *Oxyuris* (sens. strict.) are *O. tenuicauda* v. Linstow, 1901, from a zebra (*Equus crawshayi*) in East Africa, and *O. poculum* v. Linstow, 1904, from ponies in Ceylon. It appears uncertain whether either of these is really distinct from *O. equi*. In *O. poculum*, however, the spicule of the male is said to be 0.44 mm. long, and thus much longer than is usually recorded for *O. equi*. The male of *O. tenuicauda* is unknown, and the female is very inadequately described. *Oxyuris triradiata* Hall, 1916, which was doubtfully referred to *Oxyuris* (s. s.) by Yorke and Maplestone (1926), has been shown by Manter (1930) to belong to the genus *Citellina* Prendel, 1928.

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LXI.—*On the Systematic Status of the Crustacean Genera Naushonia, Homoriscus, and Coralliocrangon.* By FENNER A. CHACE, Jr., Museum of Comparative Zoölogy, Cambridge, Mass.

DR. ROBERT GURNEY has recently called my attention to the fact that the branchial structure of the genus *Homoriscus* Rathbun does not justify the inclusion of this form in the family Cragonidæ, where it has recently been placed. Examination of a perfect female specimen of *Homoriscus portoricensis* Rathbun collected last year among rocks along the shore at Havana, Cuba, by Dr. Luis Howell Rivero of the University of Havana bears out this contention. This study has also indicated that both *Homoriscus* and *Coralliocrangon* Nobili from the Red Sea should be synonymized with *Naushonia* Kingsley from the southern coast of Massachusetts, and that this genus is best accommodated by the erection for it of a new subfamily, the Naushoniinæ, in the family Laomediidæ of the Thalassinidea.

Naushonia was established by Kingsley (1897) for a shrimp found by Professor Hermon C. Bumpus of Brown University on the Island of Naushon, one of the Elizabeth Islands, off the southern coast of Massachusetts. Kingsley called this form *Naushonia crangonoides* and noted a superficial similarity between it and the members of the Cragonidæ, but at the same time he called attention to certain differences which might subsequently warrant the erection of a new family for it. Gray (1901) published a brief note on a second specimen of the same species collected by himself at Ram Island in the harbour at Woods Hole, Massachusetts. Thompson (1903) re-described these two specimens with good figures and also described several of the larval stages taken in the plankton