

ON A COLLECTION OF NEMATODES FROM AUSTRALIAN MARSUPIALS.

By

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(Figures 1-12.)

A small collection of parasitic nematodes belonging to the Australian Museum was submitted to us by the Director, Dr. C. Anderson, for examination, those from marsupials being dealt with here. The host names, Museum registered number, locality and species recorded in this paper are as follows:

Macropus major Shaw (W.3212), probably from N.S.W.; *Zoniolaimus bipapillosus* J. & M.; (W.3213) *Pharyngostromgylus macropodis* Yorke and Maplestone.

Macropus ocydromus Gould, (W.886), from near Cranbrook, south-western Australia: *Pharyngostromgylus beta* J. & M.; *Cloacina curta* J. & M.; *C. obtusa* J. & M.

Macropus sp., probably *major* Shaw, (W.370), from Eidsvold, Queensland: *Dipetalonema roemeri* (Linstow).

Macropus rufus Desm., (W.1072), from Mt. Lyndhurst, Northern Flinders Range, South Australia: *Pharyngostromgylus beta* J. & M.

Macropus rufus Desm., (G.11181), no locality mentioned: *Zoniolaimus longispicularis* (Wood).

Macropus fuliginosus Desm., (W.1064), from Deep Creek, near Kingscote, Kangaroo Island: *Zoniolaimus communis* J. & M.

Macropus robustus Gould (W.3214), from Armidale, N.S.W.; *Zoniolaimus longispicularis* (Wood).

Thylogale eugenii Desm., (W.1069), from Deep Creek, near Kingscote, Kangaroo Island: *Zoniolaimus eugenii*, n. sp.; *Cloacina petrogale* J. & M.; *Physaloptera* sp.

Thylogale thetis Lesson (W.3173), Huonbrook, near Mullumbimby, N.S.W.; *Zoniolaimus uncinatus* J. & M.

Wallabia irma Jourdan, (W.887), near Cranbrook, south-western Australia: *Macrostrongylus irma*, n. sp.; *Pharyngostromgylus beta* J. & M.; *Zoniolaimus communis* J. & M.; *Cloacina curta* J. & M.

Wallabia sp. "wallaby", (G.11103), without locality: *Dipetalonema* sp.

Wallabia sp. "wallaby", (G.11113), without locality: *Contracaecum erraticum*, n. sp.

Collections W.886, 887, 1064 and 1072 were made in 1921 by E. Le G. Troughton, Museum Mammalogist, Australian Museum. G.11103, 11113 and 11181 formed part of collections obtained long ago and have no names of localities associated with them. They must have been made about seventy years ago, as the labels are all in the handwriting of G. Krefft, who was Curator of the Australian Museum and

read a paper before the Entomological Society of N. S. Wales in 1871 (published in 1873) on Australian Entozoa. In addition to describing a number of cestodes, mostly from Australian birds and marsupials, he recorded under broad generic names, e.g. *Ascaris*, *Distoma*, etc., the presence of helminths in various animals, chiefly birds and reptiles. The material was stated to have been collected by himself and by Mr. George Masters in the neighbourhood of Sydney and in Queensland. Since all the specimens recorded as obtained by Masters are stated to be from Queensland, presumably Krefft secured the New South Wales material and Masters that from the northern state. Some of it must have come from the Burnett River district of Queensland, e.g. *Ascaris* sp. (which we can safely attribute to *Amblyonema terdentatum* Linstow) from *Ceratodus forsteri*, and perhaps material from *Elseya dentata* (a tortoise) and from "northern wallabies" (*Halmaturus*), Krefft actually naming *Halmaturus mastersi* (now known as *Wallabia bicolor* var. *mastersi*; syn. var. *ingrami* Thomas) from that region, his *Taenia mastersi* probably coming from the same host. *Ascaris* sp. was recorded (Krefft, 1873, 212) from a bandicoot, *Perameles nasuta*, a species formerly common in the Sydney district, which was probably the locality for Krefft's material, his parasite belonging without doubt to our *Physaloptera peramelis* (also from the vicinity of Sydney), but his specimens are no longer available for comparison. Collection G.11113, labelled "Ascaris from Wallaby", but without any other data, contains only a species of *Contraecaecum*, an occurrence so striking as to suggest an error in labelling, as we indicate in a later portion of this paper. Regarding G.11181 from *Macropus rufus*, the host animal must have been taken somewhere on the great inland plains and we are not able to suggest any more definite locality for these particular parasites, though the species, *Zoniolaimus longispicularis*, has been recorded by us from many kangaroos and wallabies from various parts of Australia. An account of several of Krefft's cestodes was published by one of us (T.H.J.) in 1912.

***Contraecaecum erraticum*, n. sp.**

(Figs. 1-2.)

G.11113: "Ascaris from wallaby."

Males about 16-17 mm.; females 15-30 mm. long. A collar region behind the lips, 45 μ deep. Lips large, each with a pair of laterally-projecting horns; interlabia nearly as long as the main lips; each sublateral lip with one, and the dorsal lip with two large rounded papillae.

In a male 16.5 mm. long the oesophagus was 2.25 mm, the stout conical intestinal caecum 1.65 mm., and the thin, club-shaped oesophageal diverticulum 0.55 mm. long. In the same male the spicules were 3.8 mm. long, i.e. 1:4.3 of body length; but in others they ranged to 1:5.5 of body length. There were twelve pairs of preanal papillae arranged in two linear rows, with the larger papillae more anteriorly situated. Postanally were six pairs of papillae, those of each side being arranged in three groups of two each, one group just posterior to the anus, another near the mid-line behind these and one laterally.

In some females the cuticle just behind the collar formed a ridge. The position of the vulva was 1:3.6 of body length from anterior end. The conical tail was 0.3 mm. long.

The form of the head and the number and arrangement of the postanal papillae suggest *C. microcephalum* (Rud.), but there are fewer preanal papillae and a