Parasitic Ciliata of Cavia aperea, Erxl.

by

Prof. GUSTAVO HASSELMANN, M. D.

Professor of Agricultural Zoology and Applied Hydrobiology at the Escola Superior de Agricultura.

(With Plate 1)

In a preliminary note, published on Nov. 9th. 1918 in the «Brazil-Medico», i described the morpholgy and defined the systematic position of a ciliale, parasitic in Cavia aperea (the preá), and named it Cunhaia curvata.

This ciliate is included among the reresentants of the family Ophryoscolecide, founded in 1858 by STAIN, who attributed to it the genera Ophryoscolex and Entodinium, to which later on (in 1888) SCHUBERG, added the genus Diplodinium.

After this, AWERINZEW and MUTA-VOWA included in the same family the genus *Metadinium*, and finally, in 1912, BRUMPT and JOYEUX placed in it also the genus *Trogodytella*.

The family Ophryoscolecidæ was thus represented by five genera, when, in 1918, I described the genus Cunhaia, which belongs to the same group.

Consenquently, since then the family

Ophryoscolecidæ is made up of six genera.

Genus I—Ophryoscolex, STEIN, 1858: With upper half of body horizontally truncated and hollowed out into a funnel representing the entrance to pharynx. Buccal membranellae, inserted in a groove at border of funnel, describe a spiral course, starting of from ventral border, passing on towards the left, backwards and towards the right and finally entering the pharynx.

The borders of the funnel may be doubled inwards, harbouring the membranellæ. Besides this, a little lower in the body there is a spiral row of membranellæ inserted in a groove describing a little less than two thirds of a volution.

The row of membranellæ is broken on the ventral side. The rest of the body is free of cilia. Anus at aboral pole.

This genus comprises the following species: 1. O. inermis, STEIN, 1858. 2.

O. purkinjei, STEIN, 1858. 3. O. cattane-oi (FIORENTINI, 1889). 4. O. caudatus, STEIN, 1859.

Genus II.—Entodinium, STEIN, 1858. Body free of cilia; peristomial crown.

This genus comprises the following species: 5. E. bursa FIORENTINI, 1889.
6. E. rostratum, FIORENTINI, 1889. 7.
E. caudatum, STEIN, 1859. 8. E. minimum, SCHUBERG, 1888. 9. E. edentatum, STEIN, 1859. 10. E. furca, DA CUNHA, 1914, 11. E. bicarinatum, DA CUNHA, 1914.

Genus III.—Diplodinium, SCHU-BERG. Adoral zone after describing a spiral at entrance of pharynx, as in the genus Entodinium, takes the tangential direction towards the left so as to form a second spiral wound towards the left and runing in a depression behind and in a dorsal direction from the mouth.

The species of this genus are the following: 12. D. maggi, FIORENTINI, 1889. 13. D. bursa, FIORENTINI, 1889. 14. D. dentatum, FIORENTINI, 1889. 15. D. denticulatum, FIORENTINI, 1889. 16. D. rostratum, FIORENTINI, 1889. 17. D. minimum, DA CUNHA, 1914. 18. D. anisacanthum, DA CUNHA, 1914. 19. D. eberleini, DA CUNHA, 1914.

Genus IV.—Metadinium, AWERIN-ZEW and MUTAVOWA. Two independent spiral crowns.

Species: M. medium, AWERINZEW and MUTAVOWA.

Genus V—Trogoditella, BRUMPT and JOYEUX. Adoral zone as in genus Ophryoscolex and lower down another zone. It differs on account of having three zones disseminated over body, i. e., besides the adoral zone it has four other

zones of cilia. The two first cover on the left side of body the two rows; the third line is on the right side of body near anus; the fourth line is in the posterior part of body, at the limit of a depression encircling spirally from left to right about three quarters of outline of the body.

Species: 21. T. abrassarti, BRUMPT and JOYEUX, 1912, 22. T. gorillæ, REI-CHNOW, 1920.

Genus VI.—Cunhaia, HASSELMANN, 1918. Peristomial crown of membranel-læ continuous with a zone of cilia extending towards the dorsal border and along it in about a third of its extension.

Species: 23. C. curvata. Body flattened, wider at anterior part, ending posteriorly in a point bent towards the dorsal border.

Dorsal border convex; ventral border concave. Mouth at anterior end near concave border.

Peristoma is contractile and has a crown of membranellæ similar to that of the genus *Entodinium*. It differs by continuing in a zone of cilia extending packwards and accompanying the dorsal border along a third of its length.

The rest of the body is free of cilia

Macronucleus elongate, cylindrical and running parallel and very near to dorsal border. Micronucleus fusiform and lying inwards from macronucleus, near to anterior end.

Two contractile vacuoles, one anterior and one posterior, both near the dorsal border.

Dimensions: length; 60-80 μ ; width; 30-40 μ .

Explanation of Plate 1

All figures are drawn from preparations stained by iron Haematoxylin, HEI-DENHAIN'S method. Fig. 1—Cunhaia curvata, low magnification.

Fig. 2 and 3 - Cunhaia curvata, high magnification