CATEDRA DE PARASITOLOGIA, ENFERMEDADES PARASITARIAS
Y ENFERMEDADES INFECCIOSAS
(Prof. Dr. M. CORDERO DEL CAMPILLO)

ON A NEW SPECIES OF AVIAN CESTODE OF THE GENUS AMOEBOTAENIA (DILEPIDIDAE: DILEPIDINAE) COHN, 1900 FROM INDIA

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INTRODUCTION

Cohn (1900) described *Amoebotaenia cuneata* (LINSTOW, 1872) syn. *A. sphenoides* RAILLIET, 1892 from the domestic fowl. Since then, some 17* more species have been added in this genus. YAMAGUTI (1959) gave a key to the genera of the subfamily Dilepidinae Fuhrmann, 1907. He has taken into account the testes number while, separating the genera of the subfamily Dilepidinae. If the suggestion accepted then *A. oligorchis* having 5 to 6 testes does not come under the genus *Amoebotaenia*. Because, in the generic characters it is clearly mentioned that the genus *Amoebotaenia* contains more than 7 testes. *A. oophorae* described without hooks by BELOPOLSKAYA (1971) and hence, it is not taken for comparison. SPASSKI *et al* (1966) transferred *A. volvulus* to the genus *Choanotaenia*. Again SPASSKI *et al* (1966) accepted only four species as valid, out of 17 species described under this genus.: *A. cuneata*, *A. longisaccu-lus*, *A. oligorchis*, and *A. spinosa*. But they did not allocate remaining 13 species to other genera. QURESHI (1944) and SUNDARAM *et al* (1962) redescribed type species from India.

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(*) *A. awogera* YAMAGUTI (1956), *A. brevicollis* FUHRMANN (1907), *A. brevis* (LINSTOW, 1884), *A. fuhrmanni* TSENG (1932) *A indiana* SHINDE (1972), *A. longisacculus* YAMAGUTI (1956), *A lumbrici* (VILLOT, 1883), JOYEUX et BAER, (1939), *A maharashtrai* SHINDE (1972), *A. megascolexi* SHINDE (1972), *A. oligorchis* YAMAGUTI (1935), *A. oophorae* BELOPOLSKAYA (1972), *A. pekinensis* TSENG (1932), *A. setosa* BURT (1940), *A. Sphenoides* COHN (1900), *A. Spinosa* YAMAGUTI (1956), *A. vanelli* FUHRMANN (1907), *A. volvulus* SPASSKI *et al* (1966), and *A. yamasigi* YAMAGUTI (1956).

DESCRIPTION

A large number of cestodes were collected from the intestine of *Gallus domesticus* (Indian fowl) during the survey of helminth parasites of vertebrates.

The cestodes were white in colour in live condition measuring 1.08 to 1.10 mm. in length. The total number of proglottids is 13. The segments are broader than long. The length and breadth of the proglottids are:

i) Immature – 0.035 – 0.055 mm long and 0.15 – 0.16 mm broad.
ii) Mature – 0.059 – 0.061 mm long and 0.21 – 0.22 mm broad.
iii) Gravid – 0.15 – 0.16 mm long and 0.31 – 0.32 mm broad.

The scolex is small, almost quadrangular in shape and measures 0.12 – 0.13 mm by 0.18 – 0.20 mm. The rostellar pouch is well developed and is 0.14 – 0.15 mm long and 0.059 – 0.061 mm broad. The rostellum is also well developed and measures 0.071 mm in length and 0.042 mm in breadth. The rostellum is armed with 12 hooks, arranged in a single crown. Rostellum extends posteriorly beyond the margins of the suckers. The rostellar cap is distinct, measuring 0.035 mm in length and 0.042 mm in breadth. The hooks measure 0.033 – 0.035 mm. in length. The suckers are four in number, large and rounded in shape with a average diameter 0.084 – 0.087 mm. The neck is absent and proglottids short immediately behind the scolex. The lateral ventral excretary canals run straight and are joined by narrow transverse ducts in the posterior region of the segment.

The testes are eight in number but only in one segment observed nine testes which are posterior to ovary. The testes are in one line. The testes measure 0.02–0.03 mm in diameter. The vas deferens is slightly thick and coiled but well developed. The cirrus pouch is short and opens laterally at $^1/_4$ from the anterior margin. The cirrus pouch measures 0.10 – 0.12 mm in length and 0.01 – 0.02 mm in breadth.

The ovary is bilobed, well developed, occupies $^3/_4$ of breadth of the segment and extending to the longitudinal excretary canal. It measures 0.23 – 0.25 mm in length and at the end of both the ovarian lobes is 0.029 – 0.047 mm. in breadth. The aporal and poral are same in length and also has blunt acini. The vitelline gland is a compact body, well developed and irregular in shape. It measures 0.022 – 0.024 mm in diameter. The receptaculum seminis is oval and prominent measuring 0.041 – 0.043 mm in length and 0.017 mm in breadth. The vagina is narrow elongated tube and running parallel to male genitalia being 0.11 – 0.12 mm in length. It runs dorsal to the ovary and opens immediately behind the male genital pore into a small and well developed genital atrium. The genital pores are regularly alternating.

The gravid uterus occupies the entire proglottid and contains numerous eggs measuring 0.01 – 0.017 mm in diameter.

DISCUSSION

In possessing more than seven testes, rostellum with hooks in a single crown, genital pores alternating regularly, genital atrium small and cirrus pouch extravascular, the present form belongs to the genus *Amoebotaenia* COHN, 1900, so far 17** species are included in this genus.

The present form apparently resembles *A. oligorchis* YAMAGUTI (1935), *A. indiana* SHINDE (1972), & *A. brevis* (LINSTOW, 1884) in possessing 12 hooks, beginning of genital organs in the fourth segment and range of proglottids number. But, it is distinguished from *A. oligorchis* in not having 28 proglottids (25-33), and 5-6 testes. It differs from *A. indiana* in the number of hooks (12 against 10), in the number of testes (8-9 against 10-12) and extension of rostellar pouch (rostellar pouch extends posteriorly beyond the margins of the suckers against rostellar pouch extends posteriorly up to the middle of the suckers). It is separated from *A. brevis* in the number of proglottids (13 against 12), in the size of the body (1.08 – 1.1 × 0.21 – 0.32 against 4.2 × 1.6 mm) and in the beginning of the genital organs in the segments (4th against 7th). It also differs from *A. Maharashtrai* in the total number of hooks (12 against 14) and in the testes number (8-9 against 11). It can also be separated from *A. megascolexi* in not having the testes number 14-17. The present form differs from *A. awogera* YAMAGUTI (1956), *A. indiana* SHINDE (1972), *A. setosa* BURT (1940) and *A. spinosa* YAMAGUTI (1956) in not having the cirrus spinose. Lastly, it also differs from all the species described so far in having less number of testes (i. e. 8-9) except *A. oligorchis* YAMAGUTI, 1935 (5-6).

The differences described above are enough to erect a new species to accomodate the present form and named as *Amoebotaenia cohni* n. sp.

Host: *Gallus domesticus* (Indian fowl)
Habitat: Intestine
Locality: Aurangabad (Maharashtra: INDIA)
Type Specimens: Deposited in the Parasitology Section, Dept. of Zoology, Marathwada University, AURANGABAD.

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** Unfortunately authors could not get the account of *A. lumbrici* (VILLOT, 1883) JOYEUX *et al* (1939) and hence it is not compared.

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RESUMEN

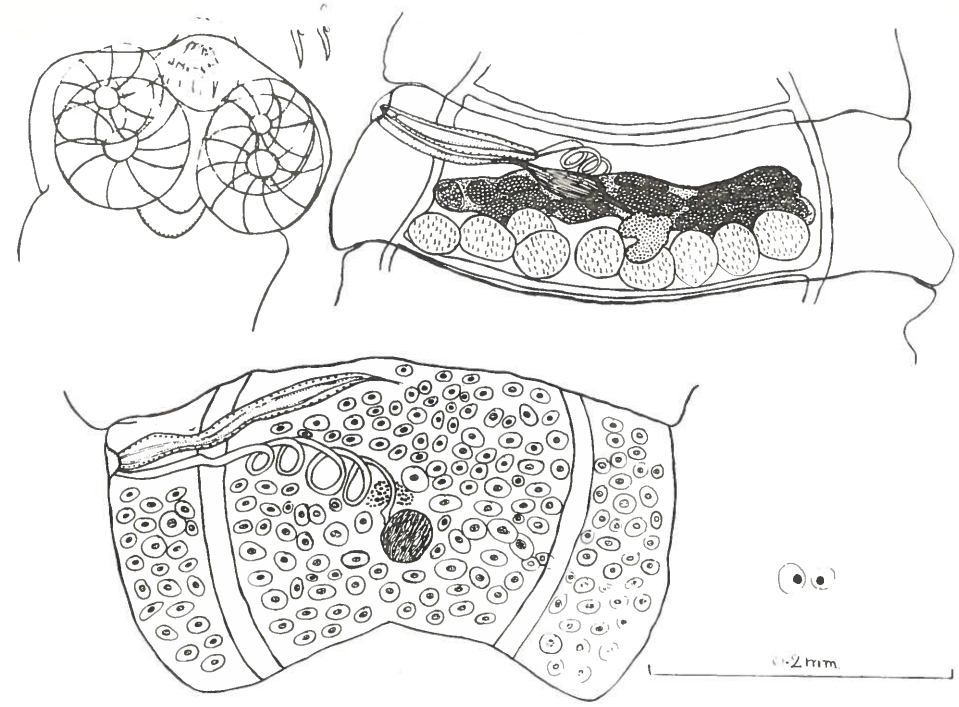
A. cohni n. sp., aunque se parece al *A. oligorchis*, al *A. indiana* y al *A. brevis* en número de ganchos, en el comienzo del órgano genital de los segmentos y en el número de proglótis, y se diferencia de todos estos en una característica u otra, por ejemplo, en el número de testículos, en el número de segmentos y en el comienzo de los órganos genitales en los segmentos.

RÉSUMÉ

A. cohni n. sp., quoiqu'il se ressemble à l'*A. oligorchis*, à l'*A. indiana* et à l'*A. brevis* quant au nombre des crochets, le commencement de l'organe génital dans les segments at au nombre de proglottides, il diffère de tous ceux-ci dans quelqu'une de ses caractéristiques, par exemple, dans le nombre de testicules, dans le nombre de segments et dans le commencement des organes génitaux des segments.

SUMMARY

A. cohni n. sp. though resembling *A. oligorchis*, *A. indiana*, and *A. brevis* in number of hooks, in the beginning of genital organ in the segments and in the number of proglottids and differs from all these in one character or another i. e. in the number of testes, in the number of segments and in the beginning of genital organs in the segments.



PLATE

Amoebotaenia cohni n. sp.