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MONIEZIA SHINDEI (B) N. SP. FROM *OVIS BHARAL* (SHEEP) AT BEED (MAHARASHTRA) INDIA

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A new cestode species in Maharashtra has been described for the first time from the intestine of sheep.

INTRODUCTION

The present communication deals with the study of *Moniezia shindei* (B) n. sp. The scolex is simple, dome shaped; mature segments are hermaphrodite, testes medium rounded to oval, pre-and postovarian, 30-40 in numbers. Ovary distinctly bilobed, with equal lobes obliquely placed on mid lateral margin of segment. Each lobe is oval in shape, with regular marginal vitelline gland globular, compact, postovarian. Interproglottid glands are present at the postero-anteroior margin, of the subsequent segment and are oblong to oval 12 - 74 in number. Presence of excretory canals in segment run laterally.

MATERIALS AND METHODS

The parasites were collected from the intestine of sheep from Beed district. All the cestodes were flattened, fixed in 4% formaline; stained with Harris Haematoxylin and mounted in D.P.X. Drawings are made with camera lucida. All measurements are in millimeters.

DESCRIPTIONS

Moniezia shindei (Fig. 1a & b)

Blanchard established the genus *Moniezia* in 1891. The present communication deals with the description of new species *Moniezia shindei* from *Ovis bharal* at Beed (Maharashtra) India in the month of June, 1990. The present worm agrees in all the characters with subgenera *Blancharizia* (1891), and Skrjabin & Schulz (1937) such as :

Interproglottid gland - *Moniezia* grouped in rosettes.
Interproglottid glands - *Blanchariezia* arranged lineally (sometime absent).
Interproglottid glands - *Bariezia* absent which having the following five species :

M. (*B*) *benedeni* (Morez, 1879, Skrj. et. Schulz 1937)
M. (*B*) *pallida* Monning 1926
M. (*B*) *aurangabadensis* Shinde *et al.* 1985
M. (*B*) *bharalae* Shinde *et al.* 1985
M. (*B*) *warananagarensis* S.R. Patil & G.B. Shinde 2000

After staining the four worms with an after microscopically observation it has been revealed that the worm belongs to the genus *Moniezia* and subgenus *Blachaiezia.*

The scolexes simple dome shaped and measures 0.552-0.460 in length and 0.776-0.445 in breadth. It bears large rounded muscular suckers and overlaps slightly each other and measures. 0.242-0.232 in length and 0.228-0.194 in breadth. Neck long with thick musculature. Mature segments are having double set of reproductive organs; all the mature segments are harmaphroditic. Segment slightly broader than long and measures 0.211-0.166 in length and 1.044-1.968 in breadth.

The testes are of medium size, rounded to oval in shape and distributed throughout the segment prepost ovarian and 30-40 in number measure 0.060-0.037 in cirrus-pouch in small oval elongated, marginal, nearly at the middle segment of the anterior margin and measures 0.128-0.112 in length and 0.045-0.037 in breadth. Cirrus is thin, straight tube measures 0.112-0.110 in length and 0.015-0.007 in breadth.

Ovary distinctly bilobed, each lobe somewhat oval in shape having regular margins with equal ovarian lobes, ovary is obliquely placed on lateral side at mid region of the segment one on each side it measures 0.363-0.348 in length an opening runs along the posterior margin of the cirrus pouch and swollen at the tip of the posterior end measures 0.757 in length and 0.015-0.007 in breadth. Vagina takes small curve and enlarges into elongated seminal receptaculum, which measures 0.303-0.297 in length and 0.035-0.30 in breadth. Ootype is rounded post ovarian and measures 0.015-0.012 in vagina opens into genital atrium which is submarginal and measures 0.045-0.025 in length and 0.022 in breadth, genital pore slit like, marginal and measures 0.022 in length and 0.015 in breadth.

The vitelline gland is globular, impact, post ovarian and measures 0.037-0.030 in length and 0.053-0.037 in breadth. The interproglottid glands are present at the posterior margin of the subsequent segments and are oblong to oval, 12-14 in number laterally. Excretory canals are present in each segment, measures 0.029 in breadth.

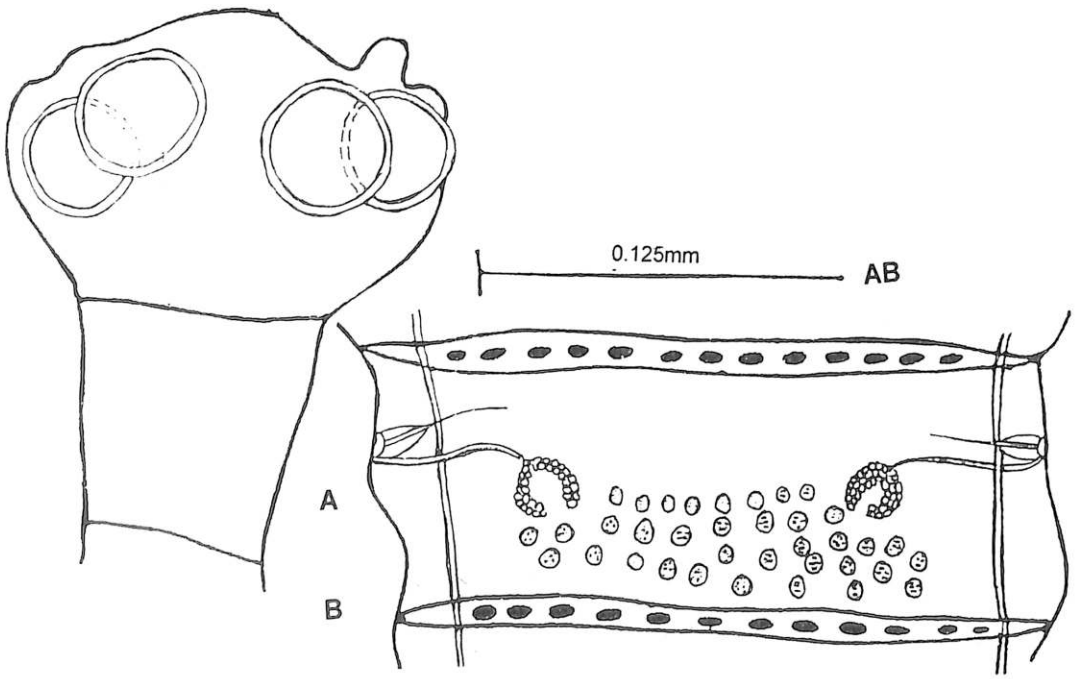

Fig. 1 : *Moniezia shindei* (B) n. sp. A. Scolex (w.m.); B. Proglottid.

DISCUSSION

The present worm comes closer to the same species. It differs from above species in having scolex is simple and dome shaped. Mature segments broader than long, testes are 30-40 in number, distributed throughout the segment pre-and postovarian, ovary distinctly bilobed, oval but much elongated with middle upper and lower constriction. The present tapeworm differs from the *M.* (*B*) *bendeni* which is having mature segments broader than long, posterior segment. Fleshy testes 500 in number arranged in the form of two triangles in the two fields, ovary compact with acini, present at the center of the segment on each side. Interproglottid glands varying in size narrow short and in transverse row, cirrus pouches wide, short ovals do not touch excretory canal. Host is the horse.

The worm under discussion differs from the *M.* (*B*) *aurangabadensis*, which is having simple scolex, segments broader than long, testes 1100-1200 in number, distributed fully anterior to posterior of the segments. Ovary bilobed each long with acini, interproglottid glands 12-14 in number in a row. Seminal vesicle oval and large. Cirrus pouch small cylindrical, viteiline gland small, rounded. Vagina posterior to the cirrus pouch. Host is *Ovis bharal* (sheep).

The present cestodes differ from *M.* (*B*) *bharalae* which is having scolex not available, mature segments broader than long, testes 190-220 in number, distributed in 1/2 to 3/4 of the segment ovary compact, bilobed, interproglottid gland is too rows out posterior margin of the segments and 38-44 in number seminal vesicles elongated and fusiform, cirrus pouch small oval, obliquely placed vitelline gland absent, vagina posterior to the cirrus pouch, host *Ovis bharal* (sheep).

It differs from *M.* (*B*) *jalnaensis*, scolex squarish slighly broader than large, mature segment squarish, broader than long testes oval scattered almost in the middle of the segment 150-160 in number. Cirrus pouch in the anterior half of the segment. Horse shoe shaped numerous short blunt, round acini. Interproglottid glands oval, situated in the middle region 19 in number space on each lateral side.

It differs from *M.* (*B*) *warananagernesis*, scolex large, globular and mature segment four to five times broad than long, testes 300-320 in number. Ovaries indistinctly bilobed with 13 to 15 short, blunt round acini. Interproglottid glands are 56 in number. Excretory canal situated at the middle of vitelline gland near posterior margins of the uporal ovarian lobe. Vagina wide posterior to cirrus pouch.

These above characters are distinct that the present worms accomodate separately and another has only the way to raise the new species for worms and hence the name *M.* (*B*) *shindei* n. sp. is proposed in honour of Ex-Professor G.B. Shinde, Cestologist, Deptt. of Zoology, Dr. B.A. Marathwada University, Aurangabad.

Type species	: *M.* (*B*) *shindei* n. sp.
Host	: *Ovis bharal*
Habitat	: Small intestine
Locality	: Beed (Maharashtra), India
Date of collection	: 10. vi. 1990

Type specimens : Holotype and Paratype are deposited in Helminthology Laboratory, Deptt. of Zoology, Dr. B.A. Marathwada University, Aurangabad.

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