



New Tapeworm *Stilesia Gangadharraoi* n.sp. (Eucestoda: Thysanomidae) Fuhrmann, 1907 from *Capra hircus* L. Parbhani (M.S.) India.

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Manuscript details:	ABSTRACT
<p>Received: 14.02.2020 Accepted: 25.03.2020 Published: 10.04.2020</p> <p>Cite this article as: Thakare BG (2020) New Tapeworm <i>Stilesia Gangadharraoi</i> n.sp. (Eucestoda: Thysanomidae) Fuhrmann, 1907 from <i>Capra hircus</i> L. Parbhani (M.S.) India, <i>Int. J. of Life Sciences</i>, Volume 8(1): 194-197.</p> <p>Copyright: © Author, This is an open access article under the terms of the Creative Commons Attribution-Non-Commercial - No Derives License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.</p> <p>Available online on http://www.ijlsci.in ISSN: 2320-964X (Online) ISSN: 2320-7817 (Print)</p>	<p>ABSTRACT</p> <p>A new species of the genus <i>Stilesia</i> Railliet in 1893 namely <i>Stilesia gangadharraoi</i> n.sp. is being reported from <i>Capra hircus</i> L. (Goat) intestine. The present cestode is having mature segments broader than long testes round to oval in shape, 18 to 20 in number and 8 to 10 on each lateral side; cirrus pouch oval, elongated, broad. Laterally at the middle of the segment; Vagina anterior to the cirrus pouch. The paruterine organs 2 in number in each gravid segment, oval, big, placed laterally in the center of segment, ovary medium, 2 in number horse shoe shaped in the middle region of segment and found in <i>capra hircus</i> L.</p> <p>Keyword: <i>Stilesia gangadharraoi</i> n.sp cestode parasite <i>Capra hircus</i> L.</p> <p>INTRODUCTION</p> <p>The genus <i>stilesia</i> was erected by Railliet in 1893 from <i>ovis aries</i> in Europe, Asia and Africa as <i>Stilesia glybipunctatus</i>. Later on <i>S hepatica</i> added to this genus by wolffhugal 1903 from sheep and goat in east Africa <i>stilesia vittata</i> repowered by Railliet in 1893. From <i>camelus dromedaries</i> from Africa and India, <i>Stilesia okapi</i> erected as a new species In 1836 from <i>okapi</i> in Africa, regarded by Baer in 1950 as variety of <i>S. globipunctata</i>. The Author agrees with Baer to regard <i>S. Leiperi</i> from <i>ovis bharal</i> at parbhani then majid etal (1982) added a new species to this genus as <i>S. aurangabadensis</i> from <i>ovis bharal</i> at Aurangabad. Later on shinde <i>et al.</i> (1985) added <i>S Marathwadensis</i> from <i>Capra hircus</i> L. as a new species to the genus at Aurangbad. Bele (2017) Studies on the cestode genus <i>Gangesia</i>, woodland, 1924 from <i>Wallago attu</i> a report on new species, <i>Gangesia ahmedpurenesis</i>. Kale (2017) studied systematic of Cestode parasite <i>Moniezia (Blanchariezia) Caprae</i> n. sp. of <i>Capra hircus</i>, Kalse and Suryawanshi (2016) studied Taxonomic of Mammalian tapeworm <i>Moniezia (B.) bhalchandrai</i> n. sp. from <i>Capra hircus</i> (L.),</p>

MATERIALS AND METHOD

Twenty seven cestode parasites were infected collected from the intestine of *Capra hircus* L all were flattened, few heavy infected intestines selected for flattened and preserved in 4% formalin, wash with the help of tap water for several times, stained with Harris haematoxyline, passed through various alcoholic grades, cleared in xylol, mounted in D.P.X. and prepared whole mount slides. Drawing are made with the help of Camera lucida.

Description

Fifteen species of cestodes collected from the intestine of *Capra hircus* in the month of May 2019 at jintur Dist- Parbhani M.S., India. The worms are very thin and delicate.

The scolex in large in size, globular in shape, broad anteriorly and measures 0.802 to 0.782 in length and 0.984 to 0.681 in breadth. It bears four oval, Large suckers arranged in two pairs, separated from each other and measures 0.417 to 0.288 in length and 0.454 to 0.303 in breadth.

The mature segments are broader than long, and measure 0.155 to 0.107 in length and 1.22 to 1.12 in breadth.

The testes are 08 to 10 in number medium in size, oval in shape, arranged in two laterals filled, 08 on postal and measures 0.049 to 0.029 in length and 0.039 to 0.029 in breadth. The cirrus pouch are small, cylindrical, oval in shape, anteriorly directed, placed anteriorly from middle of the segment and measures 0.072 to 0.039 in length and 0.058 to 0.029 in breadth. The vas deferens thin, small in size, coiled, anteriorly directed and measures 0.112 to 0.058 in length and 0.005 in breadth.

The ovary is oval in shape small in size, roughly rounded with remarkable deep riation in between this tube and measures 0.067 to 0.049 in length and 0.097 in breadth.

The vagina is thin tube, posterior to cirrus pouch, coiled and open into ootype and 0.029 in length and 0.015 in breadth. Ootype small, round in shape and measure 0.010 in diameter

The genital pores are small in size, oval in shape, regularly alternate, situated anterior to middle of the segment and 0.008 in diameter.

Vitelline gland are absent, a pair of paruterine organs are in each segment on lateral side.

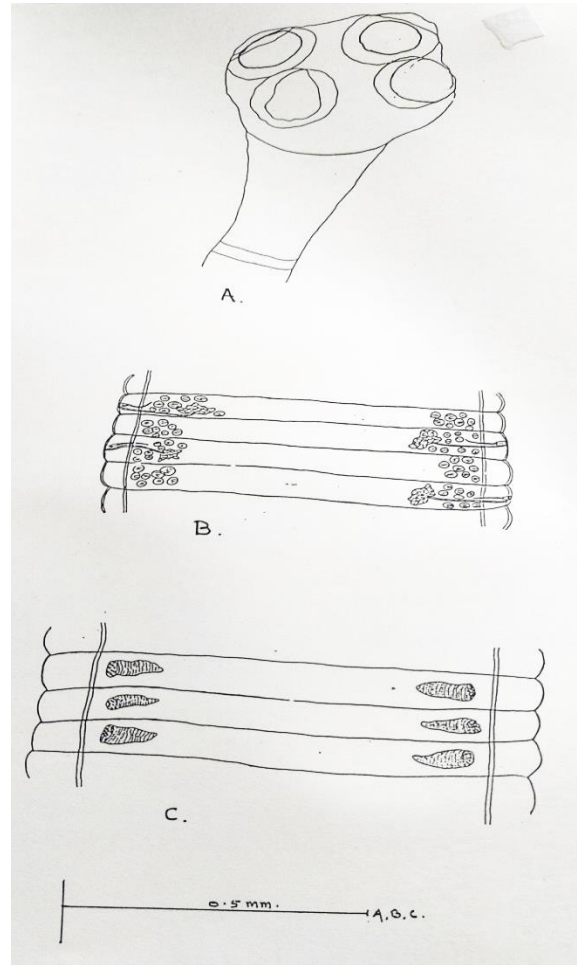


Figure 1: *Stilesia gangadharraoi* n.sp. a) Scolex b) Mature Segment c) Gravid Segment.

RESULT AND DISCUSSION

The genus *Stilesia* is erected by Railliet, 1893 (Rivota-1874) with type species *S. globipunctata*. Later on the following species are added to this genus.

1. *Stilesia. Vittata* Railliet, 1896.
2. *Stilesia Hepatica* wolfhuegal, 1903
3. *Stilesia. Leiperi* Kadam *et al.*, 1903.
4. *Stilesia. Cabellerai* Kalyankar, *et al.*, 1981.
5. *Stilesia Southwelli* shinde, jadhav and kadam, 1982.
6. *Stilesia Aurangabadensis* Majid *et al.*, 1982.
7. *Stilesia Garhwalensis* Malhotra *et al.*, Capoor, 1983
8. *Stilesia Kotwarensis*. Malhotra *et al.* Capoor, 1983.
9. *Stilesia. Marathwadaendis* Shinde *et al.*, 1985.
10. *Stilesia. Jadhavae*, Jadhav, 1999 from Ovis bharal.
11. *Stilesia yavalensis* Kalse *et al.*, 1999.

The present cestode is having mature segments broader than long testes round to oval in shape, 18 to 20 in number and 8 to 10 on each lateral side; cirrus pouch oval, elongated, broad. Laterally at the middle of

the segment; Vagina anterior to the cirrus pouch. The paruterine organs 2 in number in each gravid segment, oval, big, placed laterally in the center of segment, ovary medium, 2 in number horse shoe shaped in the middle region of segment and found in *capra hircus L.*

1. The present worm differs from *Stilesia globipunctata* is having mature segments broader than long, distance segmentation; testes in two groups, 4 to 7 on each side, cirrus pouch small, pyriform, ventral to vagina vas-deferens not closed, coiled, between cirrus pouch and outer wall of excretory canal vessel; ovary somewhat globular, immediately dorsal and to ovary and paruterine organs develop from uterus.

2. The present worm differs from *Stilesia vittata*, which is having testes in two groups 5 to 9 on each side; Vas-deferens closely coiled, in between cirrus pouch cylindrical, cirrus armed, ovary rounded, situated between portal vessels; vagina posterior to cirrus pouch, uterus near anterior margin, two big paruterine organs, develop internal to excretory vessel and found in camelus, dromedaries and camelus bactranus.

3. The cestode under discussion, differs from *Stilesia heptica* which is having mature segments craspedote, testes in two groups 6 to 7 on each side, preovarian, on anterior half of the segments; Vasdeferens are not closely coiled, but extends up to the longitudinal excretory vessels; cirrus pouch almost oval, ovary small, compact, oval, uterus transverse, a small tube, in the center and found in *capra- hircus L.* and *ovis ghral.*

4. The worm under discussion differ from *Stilesia lieperi* in the having the testes in two groups 5 to 6 on each side, post lateral to ovary, vasdeferens not closely coiled, cirrus pouch cylindrical, vagina posterior to cirrus pouch, uterus broad, in anterior half segment, with two lateral rows and paruterine organs develop from uterus.

5. The cestode under discussion, differ from *Stilesia caballerio* in having testes 1 to 8 on each side, Vasdeferens forms 0 less dense bundles of convolutions, anterior to the cirrus pouch; paruterine organ spherical, on post lateral surface and found in *Capra hircus L.*

6. The present tape worm differs from *Stilesia aurangabadensis* which is having testes in lateral groups, round 08 on each lateral side, cirrus pouch elongated cylindrical and cirrus coiled ovary medium circular compact; vagina a thin tube, dorsal to cirrus pouch and uterus with two laterals. enlarged sacs, which contain paruterine organs.

7. The present cestode differs from *Stilesia garhwalensis* which is having testes 0 to 8 in number on each side vas-deferens coiled; extend up to longitudinal excretory canals;

Cirrus pouch oval; extending up to longitudinal excretory canals; cirrus pouch oval extending half way between lateral margin and longitudinal excretory canal; Ovary small, spherical, vagina posterior to cirrus pouch paruterine organs small 0 in number, one in each lateral side of segment and found in *Capra- hircus L.*

8. The present from *Stilesia Kotwarensis* in spherical, number varies from segment to segment, Vasdeferens coiled reached up to the longitudinal excretory canal ovary small spherical vagina posterior to cirrus pouch, paruterine organs small, between dorsal and ventral, longitudinal excretory canals and found in *Ovis-aries.*

9. The tape worm under discussion, differs from *Stilesia Marathawadaensis* in having testes in two groups 5 to 8 in number, vas-deferens straight, runs up to longitudinal excretory canal, cirrus pouch cylindrical present, at anterior margin of the segments; Ovary medium, oval compact, in anterior half of the segment; vagina posterior to cirrus pouch; Uterus thin, a transverse tube near anterior margin of the segment with two large sacs, containing two paruterine organs and reported from *Capra- hircus L.*

10. The present tapeworm differs from *Stilesia yavalensis_kalse etal.* 1999. Which is having scolex quadrangular, with long neck mature segments broader than long with single set of reproductive organs testes rounded, 5-6 in number cirrus pouch oval, ovary medium, globule a single mass, vagina thin, anterior to the cirrus pouch genital pores marginal at 1/3rd to 1/4th of the segments and reported from *Capra- hircus L.*

The above noted characters are valid enough to accommodate these worms into a new species and hence the name *Stilesia gangadharraoii* n. sp. is named after the authors father Shri. Gangadharao Thakare.

Types species	<i>Stilesia gangadharraoii</i> n.sp.
Host	<i>Capra hircus L.</i>
Habitat	Intestine.
Locality	Parbhani
Date of collection	May 2019
Type of species	Holotype Paratype deposited
Helminthology Research Laboratory,	Department of
Zoology, D.S.M. College, Parbhani.	

Conflict of Interest

The author declares that there is no conflict of interest.

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