

# New Species *Stilesia Ganeshraoji\_n.sp.* (Eucestoda: Thysanomidae) Fuhrmann, 1907 from *Capra hircus L.* Parbhani (M.S.) India

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**Abstract:** A new species of the genus *Stilesia* Railliet in 1893 namely *Stilesia ganeshraoji n.sp.* is being reported from *Capra hircus 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 pro-uterine 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.*

**Keyword:** *Stilesia ganeshraoji n.sp.* cestode parasite *Capra hircus L.* Parbhani

## 1. Introduction

The genus *Stilesia* was erected by Railliet in 1893 from ovis aries in Europe, Asia, and Africa as *Stilesia globipunctata*. Later on *Stilesia hepatica* added to this genus by Wolffhugel, 1903 from sheep and goat in East Africa *Stilesia vittata* repowered by Railliet in 1893. From camelus dromedaries from Africa and India, *Stilesia okapi* erected as a new species

In 1836 from *okapi* in Africa, regarded by Baer in 1950 as variety of *S. globipunctata*.

Author agrees with Baer to regard *S. Leiperi* from ovis bharal at Parbhani then Majid et al (1982) added a new species to this genus as *Stilesia aurangabadensis* from ovis bharal at Aurangabad. Later on Shinde et al (1985) added *Stilesia marathwadensis* from *Capra hircus L.*, New species to the genus at Aurangabad.

## 2. Materials and Methods

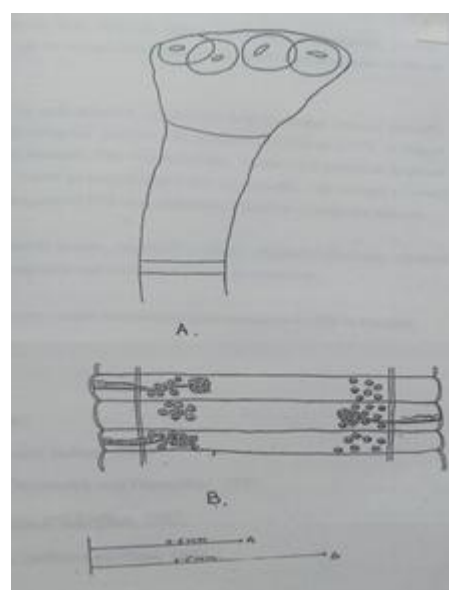
There are twenty six cestode parasites were infected collected from the intestine of *Capra hircus L.* All were flattened, few heavy infected intestines selected for flattened and preserved in 4% formalin, wash with the help of tap water for several times, stained with Harris's haematoxyline, passed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

### Description (Based on Fig. A, B)

There are Twenty two cestodes are collected from the *Capra hircus L.* Goat intestine in the period of January, 2019, at Parbhani (M.S.) India. The worms are very thin and delicate conduct further procedure staining and measurement. The mature segments are small in size, very thin only one set of reproductive organs in each segment, broader than long, with indistinct segmentation, convex lateral margin, without projections and measures 0.303 to 0.265 in length and 2.271

to 1.870 in breadths. The testes are 14 in number, medium in size, rounded in shape, in two lateral fields on lateral sides of the segment, inside the two longitudinal caecals and measures 0.038 to 0.039 in diameter. Cirrus pouch is small in size, oval in shape elongated, transversely placed, interiorly directed, extending up to longitudinal excretory canal and measures 0.265 in length and 0.030 in breadth.

The ovary is medium in size, bilobed, somewhat oval in shape, placed laterally anterior of the segments, with irregular margin and measures 0.136 to 0.121 in length and measures 0.167 to 0.152 in breadth. The vagina is thin, coiled, and posterior to cirrus pouch and measures 0.681 to 0.644 in length and 0.015 in breadth. The ootype is small in size, round in shape, and measures 0.023 in diameter. Vitelline glands are absent. The genital pores are small in size, rounded in shape, regularly alternate, situated just anterior to middle of the segment and measures 0.024 in diameter.



**Figure 1:** *Stilesia ganeshraoji n.sp.* a) Scolex b) Mature Segment

### 3. Results and Discussion

The genus *Stilesia* was established by Ralliet, 1893, type species *Stilesia globipunctata* from *Capra hircus L.* Later on the following nine species are added to this genus.

- 01} *Stilesia globipunctata*.
- 02} *Stilesia vittata* Railliet, 1896.
- 03} *Stilesia hepatica* Wolffugal, 1903.
- 04} *Stilesia leiberi* Kadam, shinde and jadhav, 1980.
- 05} *Stilesia caballero*\_Kalyankar Deshmukh and Hatwalkar, 1981
- 06} *Stilesia aurangabadensis* Majid, shinde and jadhav, 1982
- 07} *Stilesia garhwalensis* Malhotra et al kapoor, 1983
- 08} *Stilesia kotwarensis* Malhotra and kappor, 1983
- 09} *Stilesia marathwadaensis* shinde, Jadhav, and phad, 1985
- 10} *Stilesia jadhavae*\_,jadhav B.V., 1999
- 11} *Stilesia ganeshraoji* n.sp (described earlier).

The present cestode, is having mature segments, broader than long, testes round in shape 10 to 12 in number, 5 to 7 on each lateral side cirrus pouch oval, elongated broad distally at the middle of the segment, vagina anterior in the cirrus pouch, pro-uterine organs 2 in number, in each gravid segment, oval big, placed laterally in the center of segments ovary medium rounded, in posterior region of segment and found in *Capra hircus L.*

01} The present tape worm differs from *Stilesia globipunctata* which is having the mature segments; broader than long distinct segmentation, testes in two groups 5 to 7 on each side, cirrus pouch small, pyriform ventral to vagina vasdeferens no closely coil, between cirrus pouch and outer wall of excretory vessel ovary somewhat globular, vagina dorsal to cirrus pouch, uterus globular, immediately dorsal and close to ovary and pro-uterine organs develop from uterus.

02} The present tape worm differs from *Stilesia vittata* which is having testes in two groups 5 to 7 on each side, vas-deference closely coiled, in between cirrus pouch and outer wall of excretory vessel, cirrus pouch cylindrical, cirrus armed, ovary rounded, situated between portal vessel; vagina posterior to cirrus pouch, uterus near anterior margin two pro-uterine organs, develops internal to excretory vessel and found in *Camelus drpedaroes* and *camelus bactranus*.

03} The cestode under discussion, differs from *Stilesia hepatica* which is having mature segments craspedote, testes in two groups 6 to 7 on each side, Pro-ovarian, in anterior half of the segment; Vasdeferens not closely coiled, but extends up to the longitudinal excretory vessel; cirrus pouch almost oval, ovary small, compact oval, uterus transverse, a small tube, in the center and found in *Capra hircus L.* and *ovisbharal*.

04} The worm under discussion differs from *Stilesia. Leiperi* in having the testes in two groups 5 to 6 on each side, poster lateral to ovary, vas deferens not closely coiled, cirrus pouch cylindrical, vagina posterior to cirrus pouch, uterus broad, an anterior half of the segments, with two lateral saws pro-uterine organs develops from uterus.

05} The cestode under discussion differs from *Stilesia. caballero* in having testes 1 to 10 on each side, vasdeferens from less dense bundles of convolutions, anterior to the testes; vagina opens into the genital cloacae posterior to cirrus pouch; pro-uterine organs spherical on post lateral surface and found in *Capra hircus L.*

06} The present tapeworm differs from *Stilesia. aurangabadensis* which is having testes in lateral groups, 07 on each lateral side, cirrus pouch elongated cylindrical and cirrus coiled ovary medium circular compact; vagina a thin tube, posterior dorsal to cirrus pouch and uterus with two lateral, elongated sacs, which contain pro-uterine organs.

07} The present cestode differs from *Stilesia garhwalensis* which is having testes 0 to 7 in number on each side vasdeferens coiled; extend 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, pro-uterine organs small 2 in number, on each lateral side of segment, found in *Capra hircus L.*

08}The present from *Stilesia kotdwarensis* in spherical, number varies from segment to segment vas deferens coiled reached up to the longitudinal excretory canal ovary small spherical vagina posterior to cirrus pouch, pro-uterine organs small between dorsal and ventral, longitudinal excretory canal and found *Ovis bharal*.

09} The tapeworm under discussion, differs from *Stilesia marathwadensis* in having testes in two groups 5 to 7 in number; Vasdeferens straight run up to longitudinal excretory canal, cirrus pouch cylindrical present, at anterior margin of the segments; Vagina posterior to cirrus pouch; uterus thin, a transverse tube, near anterior margin of the segments with two large sacs, containing two paruterine organs and reported from *Capra hircus L.*

10} The present tapeworms differs from *S. jadhavae*. Which is having scolex globular, mature segments 8 times broader than long testes rounded, in two groups 5-7 in number, cirrus pouch medium in size, oval in shape, ovary rounded vagina in a thin tube present at the anterior side of the cirrus pouch.

11} The specimen *Stilesia ganeshrooi* n.sp can again be differentiated from *Stilesia parbhaniensis* n.sp. having scolex quadrangular simple, neck short, mature segment thin almost 10-11 times broader, testes medium, oval 8-9 in number, on each side cirrus pouch large, elongated, slightly curved, ovary medium oval, single mass, vagina thin, genital pore small, irregularly alternate situated in posterior half, paruterine organs two in number on each side. The above noted characters are valid enough to accommodate these worms into a new species and hence the name *Stilesia ganeshraoji* n.sp.is proposed in Hon.of Shri.Ganeshrao Dudgaonkar, Ex.Minister of Maharashtra state and Founder of the Dnyanopasak Mahavidyalaya Jintur, Dist. Parbhani M. S.

Type's species	<i>Stilesia ganeshraoji</i> n.sp
Host	<i>Capra hircus L.</i>
Habitat	Intestine.
Locality	Parbhani M. S. India

Date of collection January- 2019.  
 Type of species Holotype & paratype are deposited in  
 Zool.  
 Zoology-Dept, D.S.M.College,,Jintur

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