

On a new species of the genus *Diplopylidium* (Eucestoda : Dilepididae) from *Felis chaus* at Chande Budruk, (MS) India

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ABSTRACT

The present paper deals with the description of a new species under the genus *Diplopylidium* Beddard (1913) as *Diplopylidium chandensis* new species which is having the distinct characters such as scolex medium, dome shaped in appearance, rostellum armed, rostellar hooks are 52 in number, arranged 7 rows, bipronged, mature segments medium, almost two and half times longer than broad, testes medium, oval, 30 in number, unevenly distributed, cirrus pouch large, elongated, oval, placed in 1/4th or 1/5th region of the segments, ovary medium, indistinctly bilobed, lobes with few short, blunt, round acini, vagina thin, posterior to the cirrus pouch, genital pores bilateral, marginal, situated almost at 1/4th from the anterior margin of the segments and vitelline gland medium, roughly triangular, postovarian.

Key words : Cestoda, *Diplopylidium* n.sp., *Felis chaus*, Chande Budruk

The genus *Diplopylidium* was established by Beddard (1913) (syn. *Prognopylidium* Skrjabin, 1924) with the species *D. genettae* from *Genetta dongolona* from London later on the following species are added to this genus.

D. acanthotretum (Parona, 1887) Witenberg, (1932). *D. fabulosm* Meggitt, (1927) syn. of *Joyeuxiella pasqualei* Diamare, (1893) Hughes, Baker and Dawson, (1941). *D. monoophorum* (Luhe, 1898) Dollfus, (1951). *D. fortunatum* Meggitt, (1927) syn. of *Joyeuxiella pasqualei* Diamare, (1893) Hughes, Baker and Dawson, (1941).

D. nolleri Skrjabin, 1924. *Dipylidium trinchesei* of Lopez, Neyra, 1928, Joyeux and Baer, 1936 Lopez, Neyra, 1944 and *Dendrolaphis tristis* Pujatti, 1949.

D. guinguecoronatum, Lopez-Neyra et Munoz-Medina, 1921 syn. of *D. acanthotretum* (Parona, 1886) Hughes, Baker, Dawson, 1941 Lopez-Neyra 1944. *D. Skrjabini* (Popav 1935). *D. trincheseii* (Diamare, 1892) Probably cysticercus *acanthotreta* Parona, (1887) Parrot and Joyeux, (1920).

D. triseriale (Luhe, 1898) Lopez-Neyra, 1927 *D. zschokkei* (Hungerbuhler, 1990) Huges, Baker and (Dawson, 1941).

Above 11 species are considered valid by Yamaguti, (1969). Later on five species were added to this genus

by Shinde *et al.* (1994), Patil *et al.* (1997), Shinde and Pawar (2001), Shinde (2004), Patil and Jadhav (2007).

MATERIALS AND METHODS

Seven specimens of the cestodes parasites were collected from the intestine of a cat, *Felis chaus* collected at Chande Budruk Tq. Karjat, Dist. Ahmednagar M.S. India. Preserved in 4% formalin, stained in H. haematoxyline, dehydrated through alcoholic grade and mounted in D.P.X. The figures are drawn with aid of Camera lucida. All measurements are in millimeters.

Scolex are medium, dome shaped in appearance, indistinctly marked off from the strobila and measures 0.243-0.330 in length and 0.243-0.374 in breadth, rostellum armed, oval and measures 0.049-0.102 in length and 0.146-0.204 in breadth, rostellar sac medium, oval and measures 0.145 in length and 0.049-0.135 in breadth, rostellar hooks are 52 in number, arranged in 7 rows, as follows, I row 04, II row 07, III row 08, IV row 09, V row 09, VI row 08, VII row 07, bipronged with unequal prongs and measures 0.046-0.063 in length and 0.001-0.016 in breadth, neck medium, rectangular and measures 0.631-0.655 in length and 0.209-0.364 in breadth, mature segments medium, longer than broad, roughly barret shaped in appearance, and measures 0.874-0.888 in length and 0.340-0.471 in breadth, testes oval, 30 in number, unevenly distributed, preovarian – 7, 19 postovarian, 4 between, laterally by longitudinal excretory canals and measures 0.019 in length and 0.015-0.039 in breadth, cirrus thin, coiled and measures 0.184 in length and 0.005 in

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breadth, vas deferens thin, coiled and measures 0.447 in length and 0.005-0.010 in breadth, ovary medium, indistinctly bilobed, irregular in shape, lobes with few short, round acini and measures 0.024-0.049 in length and 0.049-0.092 in breadth, vagina thin, posterior to the cirrus pouch and measures 0.015 in length and 0.005 in breadth, ootype small, rounded and measures 0.019 in diameter, genital atrium oval, marginal and measures 0.107 in length and 0.010-0.029 in breadth, longitudinal excretory canal thin and measures 0.005 in width, vitelline gland roughly triangular, with irregular margin, postovarian and measures 0.015-0.039 in length and 0.024-0.039 in breadth.

RESULTS AND DISCUSSION

The genus *Diplopylidium* was erected by Beddard, 1913 (syn. *Progynopylidium* Skrjabin, 1924) with type species *D. genettae* from *Genetta dongolana* from London, so far the following species are included in the genus which are considered valid by Yamagutti (1969) later on five species were added to genus by Shinde *et*

al. (1994) and Patil *et al.* (1997), Shinde and Pawar (2001), Shinde *et al.* (2004), Patil and Jadhav (2007).

The worm under discussion is having scolex medium, dome shaped, rostellar hooks 52 in number, arranged in 7 rows, neck medium, broad anteriorly narrow posteriorly, testes 30 in number, cirrus pouch large, elongated, oval in shape, ovary medium, bilobed, irregular in shape, vagina thin, posterior to the cirrus pouch, genital pore medium, oval, vitelline gland medium, roughly triangular or oval, post ovarian.

The present cestode, differ from *D. monophorum*, which is having the rostellum with three crown of hooks, testes 25-29, cirrus pouch pear shaped, curved, genital pore in 1/5 of the segment margin, ovary avoid, with a single lobe, corresponding to middle lobe of other from and collected from *civetticts civetata* and *Genetta afva*. Differ from *D. fabulosum* which is having the rostellum with 4 circles of hooks, testes 36-39 in number, genital aperture in 1/4th of segment margin. Differ from *D. triseriale* which is having the rostellum with 3 circles of hooks, testes 39-44 in number, genital aperture in 1/3rd to 1/4th of the segment margin. Differs from *D. zschokkei* which is having the rostellum with 3 circle of hooks, testes 30 in number, genital aperture in 1/4th the segment margin and collected from the host *cynicits penicillata*. Differs from *D. fortunatum* which is having 13 rows of hooks testes 30, genital pore at anterior 5th part of proglottid margin.

As the differentiating characters are sufficient to erect a new species and hence the *Diplopylidium chandensis* n.sp. is proposed, after the locality.

Type species	<i>Diplopylidium chandensis</i> n.sp.
Host	<i>Felis chaus</i> .
Habitat	Intestine.
Locality	Chande Budruk, Tq. Karjat, Dist. Ahmednagar (M.S.) India.

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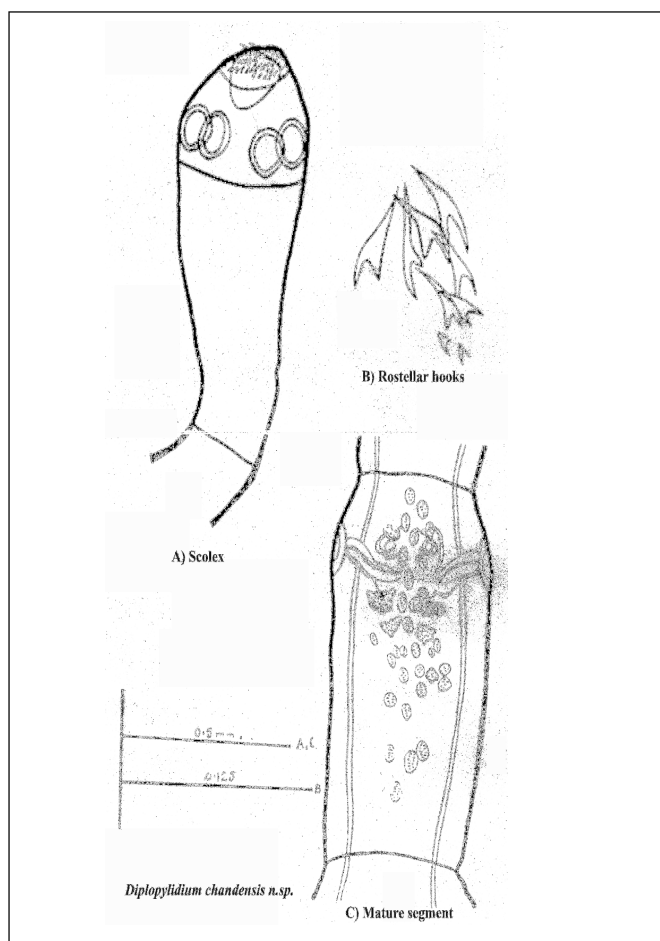


Fig. 1: Camera Lucida diagram of *Diplopylidium* n.sp.

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