PLATE: XVII

*Dipylidium manthaensis* n.sp.

A  Scolex
B  Mature segment
C  Rostellar hooks
The ootype is medium in size, oval in shape, post-ovarian, placed in the concavity of the ovary and measures 0.010 to 0.019 in length and 0.015 to 0.019 in breadth.

The vitelline gland is medium in size, almost roughly oval in shape, with few short blunt round acini, post-ovarian and measures 0.083 to 0.109 in length and 0.043 to 0.072 in breadth.

The genital pores are small in size, oval in shape, bilateral, almost in the middle or just anterior or just posterior to the middle of the lateral margin, of the segments and measures 0.019 to 0.024 in length and 0.010 to 0.015 in breadth.

The longitudinal excretory canals are medium in width and measure 0.005 to 0.010 in breadth.

The gravid segments were not available.

**DISCUSSION**

The genus *Dipylidium* is established by Leuckart, 1863 as type species *D. caninum* Linne, 1758 later on the following species are added to this genus:

2. *D. buecaminci* Tubangui, 1941.
   Syn. of *D. caninum* Witenberg, 1932.
   Syn. of *D. caninum* Witenberg, 1932.
   Syn. of *D. caninum* Witenberg, 1932.
8. *D. halli* Tubangui, 1925.
   Syn. of *D. caninum* Witenberg, 1932.
   Syn. of *D. caninum* Witenberg, 1932.
    Syn. of *D. caninum* Witenberg, 1932.
    Syn. of *D. caninum* Venard, 1938.
    Syn. of *D. caninum* Witenberg, 1932.
    Syn. of *D. caninum* Witenberg, 1932.
    Syn. of *D. caninum* Witenberg, 1932.
   Syn. of *D. caninum* Witenberg, 1932.

The worm under discussion, is having scolex medium, dome shaped, rostellum hooks 70 in number, testes follicular, small, oval to round, 540 - 560 (550) in number, cirrus pouch medium, elongated, spindle shaped; ovary large, distinctly bilobed, numerous long, separate acini; vitelline gland medium, roughly oval, with few short, blunt, round acini.

After going through the literature, the worm under discussion, comes closer to *D. crassum*, *D. longulum*, *D. glacil* and *D. walkeri* in the number of rows, of rostellar hooks, but differs from them in many other characters, which are as follows:

1. The present worm, differs from *D. crassum* in having the scolex 0.33 X 0.30, suckers 0.165 X 0.145, rows of rostellar hooks 5, but occasionally 6-7 rows; rostellum 0.095 X 0.090; neck short, wide anteriorly; testes 150 – 175; cirrus pouch pyriform, 0.225 X 0.065; ovary bilobed very compact, 0.545 to 0.255; vitelline gland as large as lateral ovarian lobe, compact, 0.160 X 0.240.

2. The present cestode, differs from *D. longulum* in having the scolex 0.410 X 0.440, suckers 0.170 X 0.175, rostellum 0.065 X 0.110; neck long, testes 180 - 240, cirrus
pouch pyriform, 0.270 X 0.175, ovary bilobed, compact, 0.365 X 0.440, vitelline gland smaller than lateral, ovarian lobe and compact.

3. The present form, differs from D. gracile in having the scolex 0.460 X 0.460, rostellum 0.070 X 0.120, 5-7 rows of rostellar hooks, testes 200 - 259, cirrus pouch pyriform, ovary bilobed, but very diffused, vitelline gland diffused and as large as lateral ovarian lobe.

4. The present worm, differs from D. walkerii in having 0.200 - 0.360 width of scolex, suckers 0.118 - 0.150 in diameter, rostellum elongated, 0.063 - 0.100; rostellar hooks in 6-7 rows, neck short, testes 225, cirrus pouch 0.050 X 0.020, ovary bilobed, but very diffused and vitelline gland longer than lateral ovarian lobe.

5. The present cestode, differs from D. porimammillanum in having 6-7 rows of rostellar hooks, testes 300 - 320, cirrus pouch 0.260 - 300 X 0.055 - 0.060, vitelline gland not so prominent and 0.125 in diameter.

On the basis of the above significant, morphological variations, it is proposed, to accommodate the present cestodes, as a new species and hence the name Dipylidium manthaensis n.sp. is proposed, after the locality.
<table>
<thead>
<tr>
<th>Type species</th>
<th>Dipylidium manthaensis n.sp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host</td>
<td>Canis familiaris</td>
</tr>
<tr>
<td>Habitat</td>
<td>Intestine</td>
</tr>
<tr>
<td>Locality</td>
<td>At Mantha, Tq. Mantha,</td>
</tr>
<tr>
<td></td>
<td>Dist. Jalna, M.S., India.</td>
</tr>
<tr>
<td>Date of collection</td>
<td>12th October, 1997.</td>
</tr>
</tbody>
</table>
Dilepididea  Wardle, McLeod and Radinovskv, 1974.
Dipylidiidae  Wardle, McLeod and Radinovskv, 1974.
Diplopylidium  Beddard, 1913.

Diplopylidium singhi n.sp.

INTRODUCTION

The genus Diplopylidium was erected by Beddard, 1913 (Syn Progynopylidium Skrjabin, 1924) with type species D. genettae from Genetta dongojana. Later other the following species are added to this genus:

2. **D. fubulosum** Meggitt, 1927 (Syn of **Joyeuxiella** Pasqualae Diamare, 1893).


8. *D. trinchesii* (Diamare, 1892) probably *Cysticercus acanthotreta* Parona, 1887, Parrot and Joyeux, 1920;
   Lopez-Neyra, 1927.


10. *D. zschokkei* (Hungerbuchler, 1910) Hughes, Baker and Dowson, 1941.

The above 11 species, are considered valid by Yamaguti (1959) and later on no new species are added to this genus.

The present communication, deals with the description of a new species under the same genus, as *D. singhi* n.sp.
collected from the intestine of a domestic cat, *Felis domesticus* collected at Jafrabad, Tq. Jafrabad, Dist. Jalna,
M.S., India; in the month of October, 1997.
DESCRIPTION

Eleven specimens, of the cestode parasites, were collected, from the intestine of a cat, *Felis domesticus* at Jafrabad Tq. Jafrabad, Dist. Jalna, M.S., India; in the month of October, 1997.

All the worms were medium in length, with thick musculature, white in colour, with scolex, numerous, immature, mature and gravid segments.

The worms were flattened, preserved in 4% formalin, stained with Harris haematoxylin, passed through various alcoholic grades, cleared in xylol, mounted in D.P.X. and whole mount slides were prepared, for further anatomical studies.

The scolex is medium in size, dome shaped in appearance, indistinctly marked off from the strobila, narrow anteriorly and posteriorly, broad in the middle and measures 0.471 to 0.728 in length and 0.199 to 0.388 in breadth.

The scolex bears four suckers, which are medium in size, oval in shape, overlapping on each other in each pair, arranged in two pairs, one pair in each half of the scolex and measures 0.099 to 0.17 in length and 0.72 to 0.087 in breadth.
The scolex bears rostellum, which is armed, medium in size, oval in shape, narrow anteriorly, broad posteriorly, almost elongated transversely and measures 0.097 to 0.130 in length and 0.146 to 0.180 in breadth.

The rostellar hooks are present on the rostellum, which are large in size, bipronged, with slightly unequal prongs, arranged in 5 rows as follows: I - row = 6; II = 10 III row = 10, IV row = 9, V row = 12, = 47 hooks. The small rostellar hooks measure 0.233 to 0.243 in length, large rostellar hooks measure to 0.248 in length and 0.010 to 0.024 in breadth.

The neck is medium in length, longer than broad, slightly broader anteriorly narrow posteriorly and measures 0.325 to 0.350 in length and 0.204 to 0.379 in width.

The mature segments are medium in size, roughly barral shaped in appearance, longer than broad, one and half times longer than broad, with straight and convex lateral margins each with double set of reproductive organs, without projections at the anterior and posterior corners of the segments and measure 0.043 to 0.679 in length and 0.354 to 0.359 in breadth.
The testes are small to medium in size, round in shape, in a single field, 50 - 55 (51) in number, unevenly distributed, placed in the central medulla, from the anterior to the posterior margin and from one lateral to the other by lateral margin of the segments, bounded laterally by the longitudinal excretory canals and measure 0.019 to 0.024 in length and 0.019 to 0.024 in breadth.

The cirrus pouch on each side, is small in size, elongated spindle shaped in appearance, broad in the middle and narrow at both the ends, slightly obliquely placed and posteriorly directed, extends upto the longitudinal excretory canals and measures 0.063 to 0.067 in length and 0.010 to 0.024 in breadth.

The cirrus is thin, slightly curved, cointained within the cirrus pouch and measures 0.063 in length and 0.005 in breadth.

The vas deferens is thin, slightly curved, anteriorly directed and measures 0.089 in length and 0.005 in breadth.

The ovary on each side, is medium in size, dumb-bell shaped in appearance, present in the anterior half of the segments, anteroposteriorly elongated, with 6 - 10 short,
blunt, round acini, and measures 0.243 to 0.257 in length and 0.0025 to 0.018 in breadth.

The isthmus is narrow, long, connecting the two ovarian lobes and measures 0.067 to 0.080 in length and 0.005 in breadth.

The vagina is a thin tube, posterior to the cirrus pouch, arises from the genital pore, runs, parallal to cirrus pouch, crosses the longitudinal excretory canals, runs obliquely, takes a turn medially, reaches and opens in to the ootype and measures 0.170 to 0.194 in length and 0.005 in breadth.

The ootype is small in size, round in shape, post-ovarian, or internal to the isthmus or just below the centre of isthmus and measures 0.010 in length and 0.010 in breadth.

The genital atrium is medium in size, oval in shape, and present in the anterior: one fourth of the segments and measures 0.012 to 0.015 in length.

The genital pores are medium in size, oval in shape, bilateral, situated almost at anterior 1/4th of segments and measure 0.015 to 0.019 in length and 0.015 to 0.010 in width.

The vitelline gland on each side, is small, triangular, post-ovarian, or internal to the ovary, obliquely placed