

## SHORT COMMUNICATION

MORPHOLOGICAL ASPECTS OF *PARAMPHISTOMUM LEYDENI*  
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**SUMMARY:** Some examined specimens of Paramphistomidae parasites of bovines from Maracay (Venezuela) were identified as *Paramphistomum leydeni* Nasmark, 1937. Morphological aspects of internal organs are presented under optical microscopy and a study of the distribution of the papillae examined under Scanning Electron Microscope.

**KEY WORDS:** *Paramphistomum*, *Paramphistomum leydeni*, Trematoda, Paramphistomidae.

*Paramphistomum leydeni* was described by NASMARK (1937) and later by EDUARDO (1982). It has been referred in many European and Asian countries (SEY, 1991). In South America it has already been referred in Venezuela (EDUARDO, 1982). In Brazil it was described by VELÁZQUEZ - MALDONADO (1976) as *Paramphistomum juliamarinorum* sp. n. and *Paramphistomum nicabraziliorum* sp. n. (worms from bovines in Rio Grande do Sul).

The examining material was collected from bovines in Maracay (Venezuela). Measurements are given in mm.

Body dorso-ventrally recurved, turning gradually wider at the posterior region (Fig. 5). Body 4.7 - 5.2 long (measurements of whole worms) and 2.3 - 2.8 maximum width (dorso-ventral cuts). Anterior region with oral sucker of approximately 0.353 diameter. Pharynx of the *Liorchis* type sensu Nasmark (Fig. 4) ranges from approximately 0.575 to 0.586 long by 0.380 - 0.657 wide, it can be seen in its stretched form or highly dilated (that explains the variation in width), with internal long papillae that can extend itself to over a third of the pharynx. Oesophagus 0.678 long and by 0.201 - 0.207 in width (shortly after the pharynx), becoming wider 0.250 - 0.298 near the posterior region, with fine muscular tissue evenly developed, without bulb formation. Lobed testicles are found in the tandem position (Figs 1-2); the anterior is 0.499 - 0.966 long at the maximum and 1.546 - 2.117 wide (dorso ventral); the posterior

is 0.694 - 0.900 long at the maximum and 1.682 - 2.135 wide (dorso ventral). Well developed ovary with 0.988 - 1.302 long and 1.064 - 1.107 wide, located dorsally between the posterior testicle and the acetabulum. Oötype just after the ovary, 0.331 long by 0.271 wide. Vitelaria not confluent in their anterior limit, go through the lateral fields, leaving from the final part of the pharynx and possibly becoming confluent at the post-acetabulum region. The genital opening is near the caecum bifurcation. Terminal genitalia of the *Leydeni* type sensu Nasmark. Genital papillae 0.201 - 0.228 long with post-bifurcal genital pore (Fig. 3). Poorly developed pars muscosa and well developed pars prostatica. Operculated eggs 0.141 - 0.160 by 0.080 - 0.083. Acetabulum of the *Paramphistomum* type sensu Nasmark, sub-ventral, 1.563 - 1.676 in diameter (measurements of whole worms, frontal view). The dorso-ventral cut is similar to that described by EDUARDO (1982).

Under Scanning Electron Microscopy one can note the anterior region end covered by a considerable amount of papillae until just after the genital opening. This becomes more scarce till they practically disappear well before the acetabulum (Figs 5-6). Small papillae circles can be seen around the oral opening (Figs 6-7) which are shown in detail in Fig. 8. Area of the genital opening covered by small discreet papillae contrasting with the ones on the body surface (Fig. 9). Very small and irregularly distributed papillae can be seen in the acetabulum region (Fig. 10).

*Paramphistomum leydeni* Nasmark, 1937. Figs. 1 and 2: Dorso-ventral and lateral sections; Fig. 3: Terminal genitalia of the *Leydeni* type sensu Nasmark; Fig. 4: Pharynx of the *Liorchis* type sensu Nasmark.

ac = acetabulum;

fd = female duct;

gp = genital pore;

i = intestine;

md = male duct;

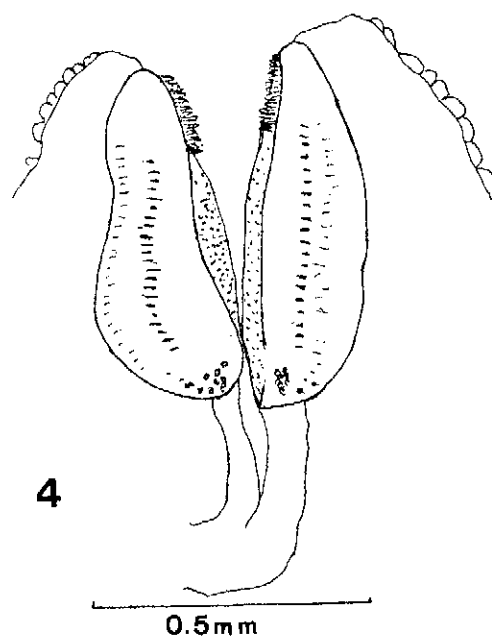
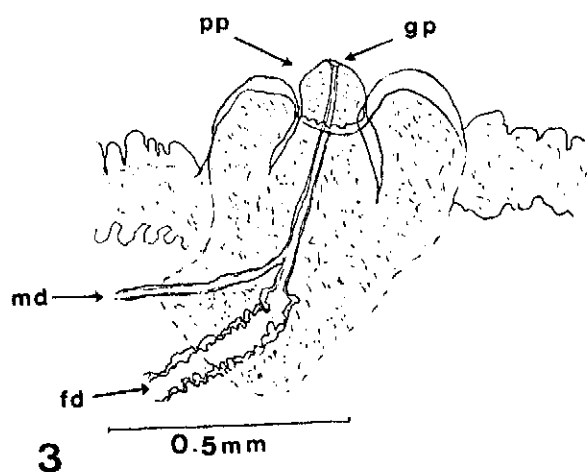
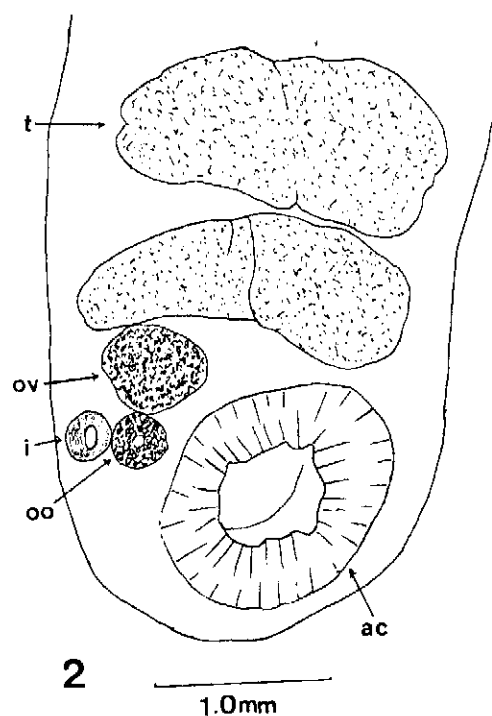
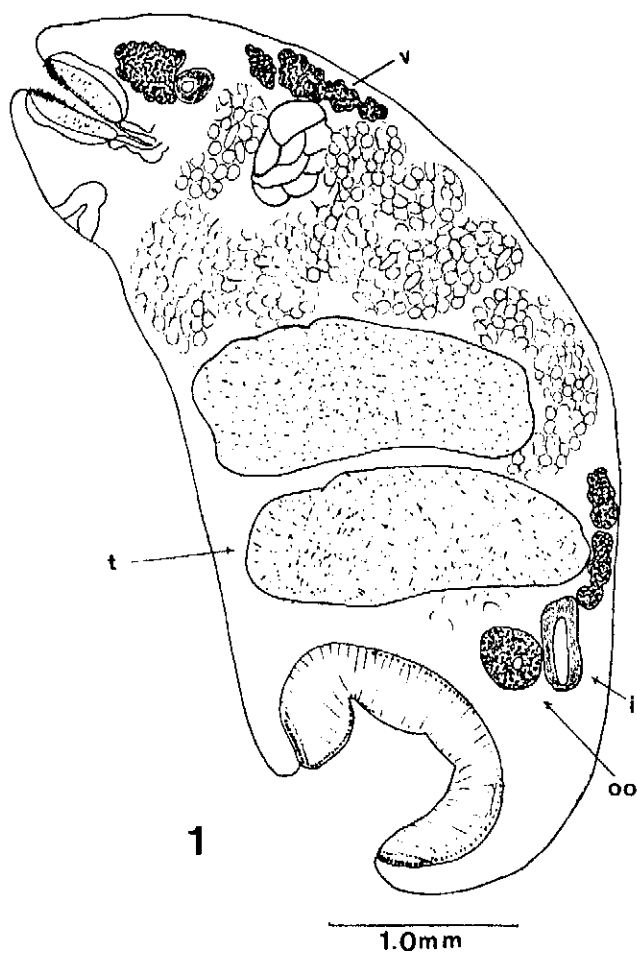
pp = genital papilla;

oo – oötype;

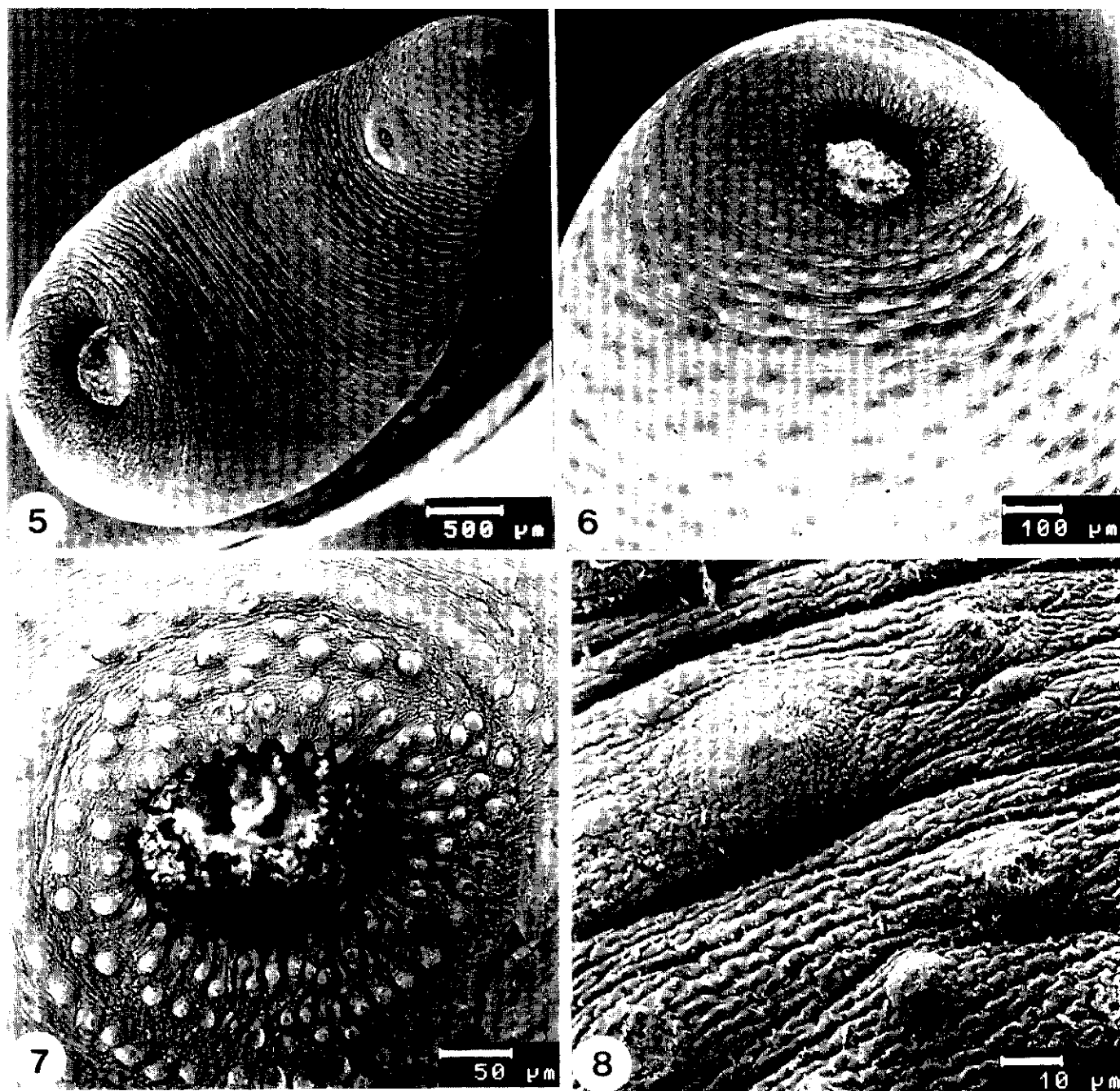
ov – ovary;

t = testicle;

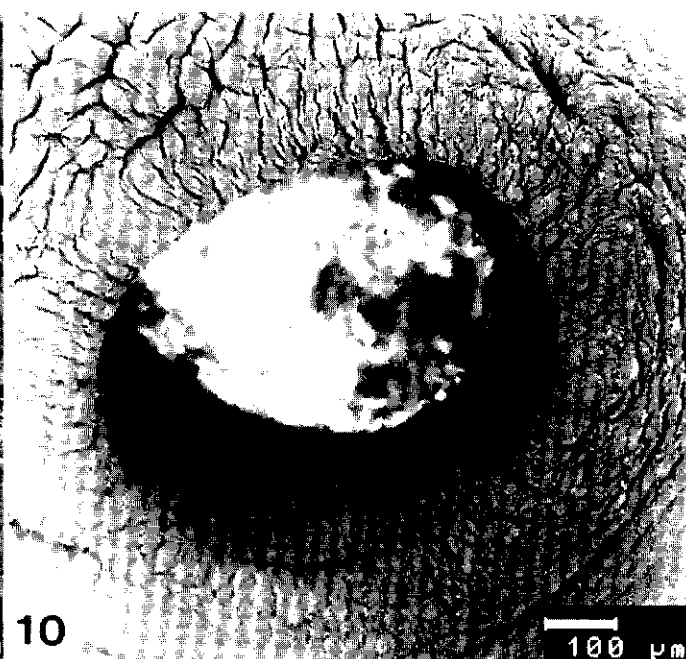
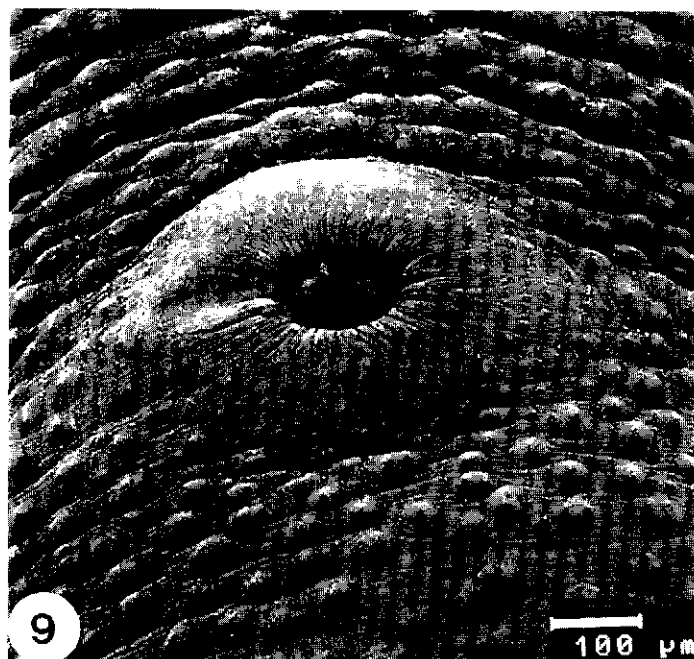
v = vitelaria



*Paramphistomum leydeni* Nasmak, 1937 (Observations under MEV). Fig. 5: The whole worm; Fig. 6: Papillae of the anterior region; Fig. 7: Circles of papillae around the oral opening; Fig. 8: Details of the papillae around the oral opening.



*Paramphistomum leydeni* Nasmark, 1937 (Observations under MEV). Fig. 9: Papillae of the ventral surface and small papillae around the genital opening; Fig. 10: Very small and irregularly disposed papillae in the acetabular region.



## SUMÁRIO

Algumas espécies de Paramphistomidae parasitas de bovinos de Maracay (Venezuela) foram identificadas como *Paramphistomum leydeni* Nasmark, 1937. Aspectos morfológicos de órgãos internos são mostrados em microscopia ótica e um estudo da distribuição de papilas feito sob microscopia eletrônica.

PALAVRAS-CHAVE: *Paramphistomum*, *Paramphistomum leydeni*, Trematoda, Paramphistomidae.

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