

**TAXONOMIC STUDY OF *APLECTANA* SP. (NEMATODA: COSMOCERCIDAE)  
PARASITIZING *LEPTODACTYLUS VASTUS* LUTZ 1930 (ANURA, LEPTODACTYLIDAE) IN A  
CAATINGA REGION, MUNICIPALITY OF PETROLINA, PERNAMBUCO, BRAZIL.**

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This study taxonomically analyzed *Aplectana* sp. nematodes parasitizing *Leptodactylus vastus* in the Caatinga region, Petrolina, Pernambuco, Brazil. The nematodes were collected from a *L. vastus* specimen at Universidade Federal do Vale do São Francisco. They were fixed in heated 4% formalin and stored in 70° GL ethanol. Specimens were clarified in Amann's lactophenol, mounted on temporary slides, and examined under a light microscope. For SEM analysis, they were dehydrated, dried in HMDS, gold-coated, and studied using a JEOL JSM 6390LV microscope (15 kV). *Aplectana* species are distinguished by the presence or absence of a gubernaculum and an odd precloacal papilla in males, as well as body size, papillae distribution, and sclerotized structures (spicule and gubernaculum). *Aplectana* sp. belongs to a group with males exhibiting both a gubernaculum and an odd precloacal papilla. These species are further classified by spicule size (above or below 150 µm) and gubernaculum size (above or below 60 µm). The species most similar to *Aplectana* sp. is *A. membranosa* (sensu Miranda, 1924), as both share morphometric variations and papillae distribution. *A. membranosa* has 13+1 (8+1:1:4) papillae, while *Aplectana* sp. has 12+1 (7+1:1:5). Despite similarities, differences in papillae arrangement exist. In *Aplectana* n. sp., the first two pairs of post-cloacal papillae are aligned transversely near the cloacal opening, while in *A. membranosa*, the first pair is farther from the cloaca and more distant from the second. Additionally, *A. membranosa* has blunt, forked spicules, whereas *Aplectana* sp. has tapered, unforked spicules. The analyzed specimens exhibit unique morphological and morphometric traits not observed in other *Aplectana* species. Further studies are ongoing for definitive identification.

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