RESEARCH NOTE

Cosmocerca parva Travassos, 1925 (Nematoda: Cosmocercidae) in Toads from Argentina

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Key words: *Cosmocerca parva* - Nematoda - *Bufo granulosus major* - Argentina

Cosmocerca parva Travassos 1925 (Ascaridida, Cosmocercoidea, Cosmocercidae) was originally described from *Helosia nasus* (Leptodactylidae) of Angra dos Reis, State of Rio de Janeiro, Brazil. It has also been reported in *Leptodactylus chaquensis*, *L. elenae*, *Hyla fuscovaria* and *Bufo paracnemis* from Paraguay (MR Baker & C Vaucher 1984 *Rev Suisse Zool 91*: 299-307).

This note enlarges the known morphological variability of *C. parva* in a new host and makes amend for previous descriptions with the aid of scanning electron microscope (SEM) at the same time that presents the first record of *Cosmocerca* species in Argentina.

Specimens of *Bufo granulosus major* Müller & Hellmich, 1936 (Anura: Bufonidae) were captured in Corrientes, Argentina. Nematodes were recovered from the posterior intestine, killed and fixed in hot water (80ºC), (D Gibson 1984 *Syst Parasitol 6*: 241-255), stored in 70º ethyl alcohol, and cleared in lactophenol for further examination. Drawings were made with the aid of a Zeiss Standard 25 light microscope with camera lucida. Specimens studied by SEM were dehydrated in ethanol series, dried using the critical point technique, coated with gold, and examined with a Jeol JSMT 100 microscope.

Morphological characteristics and measurements of the specimens collected, in millimetres (minimum, maximum, followed by mean in parentheses), are as follows: oral opening with three small lips. Dorsal lip with pair of large papillae and ventrolateral lips with a large papilla and the outlet of amphids. SEM photographs do not show the little papillae on the internal labial border described by Baker and Vaucher (*loc. cit.)*(Fig. 1). Short pharynx with its anterior end bearing three cuticular tooth-like projections. Oesophagus with bulb and valvular apparatus. Lateral alae well developed, extending from the cervical region to level of last pair of plectanes in males and slightly behind the anal opening in females. Somatic papillae numerous ligned up in two ventral, two subventral, two dorsal and two subdorsal rows, extending from cervical region to posterior end (Fig. 1). Excretory pore prebulbar. *Males* (n= 2) - Total length 1.428-2.008 by 0.212-0.428 maximum width. Pharynx 0.022-0.026 long. Oesophagus including bulb 0.333-0.490 long. Bulb 0.064-0.076 long by 0.064-0.082 wide. Nerve ring and excretory pore 0.073-0.079 and 0.229-0.246 from apex. Caudal alae absent. Tail with three pairs of ventral papillae continuous with the rows of somatic ones, the proximal pair surrounded by one small rosette of punctations. Adanal region with two to four pairs of papillae which are commonly surrounded by one or two small rosettes of punctations. Anterior lip of cloaca with one large papilla. Preanal region with five to seven pairs of plectanes, each one with two complete rosettes of 12-16 punctations (Fig. 2) and a relatively inconspicuous underlying sclerotized support. An unpaired rosette papilla not mentioned in previous descriptions may exist anteriorly to the plectane series (Fig. 3). Spicules equal 0.090-0.100 long, weakly sclerotized, gubernaculum well sclerotized, Y-shaped, 0.085-0.108 long. *Females* (n= 17) - Total length 1.499-5.913 (3.34) by 0.183-0.571 (0.35) maximum width. Pharynx 0.028-0.057 (0.041) long. Oesophagus including bulb 0.289-0.580 (0.430) long. Bulb 0.076-0.135 (0.11) long by 0.069-0.173 (0.12) wide. Nerve ring and excretory pore 0.13-0.285 (0.16) and 0.20-0.50 (0.34) from apex. Anus 0.141-0.357 (0.23) from posterior extremity. Didelphic. Ovaries parallel anterior to vulva, in immature specimens. Uteri meet in a short vagina anteriorly to the vulva. Vulva 0.294-3.028 (1.73) from anterior end. Eggs thin-walled, 0.076-0.101 (0.08) long by 0.047-0.077 (0.05) wide. Only morulated eggs were observed.

Specimens are stored in the Helminthological Collection of La Plata Museum nos. 3664C, 3669C, 3671C, 3672C, 3674C, 3675C, 3677C, 3751C, 3752C, 3753C, 3754C and 3755C.

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Received 14 October 1997
Accepted 13 July 1998

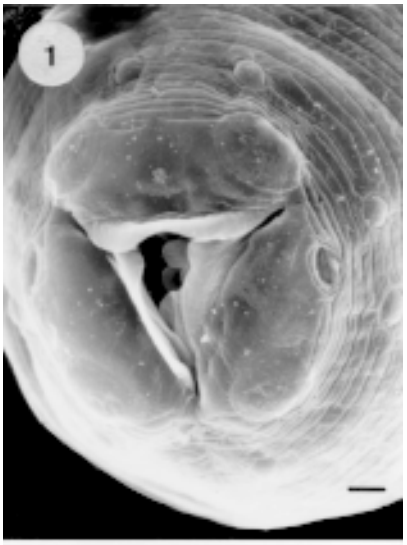
This note provides the first SEM study of an American species of *Cosmocerca.* Previous SEM studies were done with one European species, *C. ornata* Diesing, 1861 (P Navarro et al. 1988 *Rev Ibérica de Parasitol 48*: 167-173, B Grabda-Kazubska & F Tenora 1991 *Acta Parasitol Polonica 36*: 45-50).

Morphology and dimensions of Argentine specimens of *C. parva* conform closely to previous descriptions (L Travassos 1925, Baker & Vaucher *loc. cit.*). However we find little differences such as the absence of the inner labial papillae described by Baker and Vaucher and the number of rows of somatic papillae which are clearly eight rows and not four as described by the same authors. The occasional presence of unpaired rosette papilla anterior to the plectane series confirms the intraspecific variation of cuticular structures of the male posterior end.

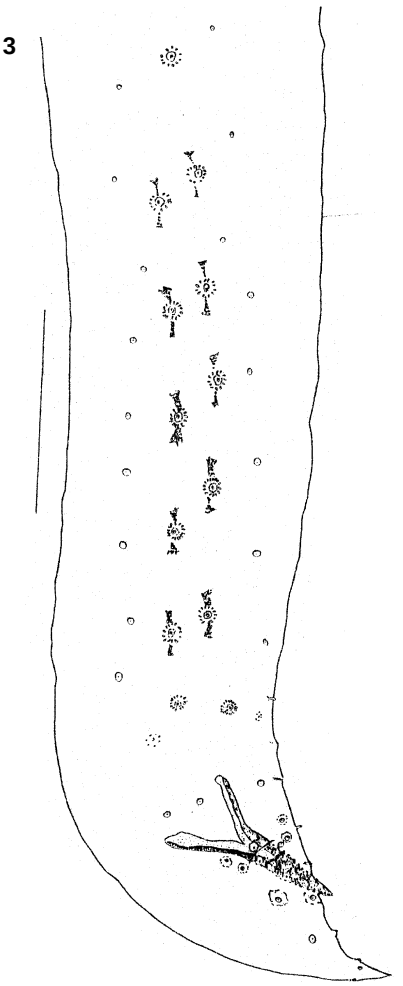
In South America, the genus *Cosmocerca* was reported mainly from frogs, the only report in toads being that of *C. brasiliense* Travassos, 1925 in *Bufo crucifer* and *C. parva* Travassos 1925 in *B. paracnemis* (Baker & Vaucher *loc. cit.*). Therefore, *B. granulosus major* is a new host record for species of the genus.

The present report of *C. parva* Travassos 1925 from Argentina enlarges this species South American distribution, being species of *Cosmocerca* unknown previously in Argentina.

Acknowledgements: to Prof. J Williams, for collecting and determining the hosts and to Mariela A Demicheli for her technical assistance in the necropsies.



Cosmocerca parva - Fig.1: oral view. Bar = 2 µm. Fig.2: plectane. Bar = 2 µm.



Cosmocerca parva - Fig.3: posterior end of male. Ventral view. Bar = 0.1 mm.