

**A survey of new host records for nematodes from mammals deposited in the Helminthological Collection of the Oswaldo Cruz Institute (CHIOC)**

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**ABSTRACT.** In this survey 1,500 samples of nematodes, representing 151 species, distributed in 20 superfamilies, parasitizing Brazilian mammals (Artiodactyla, Carnivora, Chiroptera, Edentata, Lagomorpha, Marsupialia, Perissodactyla, Primates, Rodentia) and deposited between 1916-1963 in the CHIOC were studied. New host records were established for 52 parasite species distributed in 15 superfamilies, adding new data to previous reports of mammalian nematodes in Brazil.

**KEY WORDS.** Nematodes, mammals, Brazil

Nematodes parasitizing mammals in Brazil were extensively surveyed by VICENTE *et al.* (1997) and more recently, other accounts related to this subject have been accomplished (PINTO *et al.* 1998; VICENTE *et al.* 2000; GONÇALVES *et al.* 2002); nevertheless, a great number of unidentified nematode samples remained deposited in the CHIOC during 47 years. Thus, the present study is related to their identification and the establishment of new host records for some of the species in order to add new data to the nematode parasites of Brazilian mammals.

The 1,500 nematode samples examined are deposited in the CHIOC, preserved as wet material in Railliet & Henry solution (0.85% NaCl solution: 93 ml; formaldehyde: 5ml; acetic acid: 2ml/100 ml); they were recovered from mammals from 1916 to 1963 captured in different regions of Brazil, during institutional scientific expeditions.

For the determination, nematodes were dehydrated in ethanol (70-100°GL) cleared with 100% phenol, studied unstained and returned to the original vials.

Classification of nematodes and hosts follows VICENTE *et al.* (1997) & WILSON & REEDER (1993) respectively.

Authorship of host species is given when they appear for the first time in the text.

Most of the new host records (54.0%) are referred for the southeastern Brazil followed by the central-western (26.2%), northern (17.5%), northeastern (1.8%), and southern (0.5%) regions and represent 2.2% of the total amount of samples.

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In some cases, specific diagnoses were not achieved either due to the absence of males or when the samples were not well preserved.

SUPERFAMILY – Family – identified *nematode species* (in bold + italic types) – *host(s)* (in italic type) – site – locality – CHIOC deposited numbers, respectively, of nematodes from mammals representing new host records are: RHABDITOIDEA – Strongyloidea – ***Strongyloides sp.*** – *Agouti paca* (Linnaeus, 1766) – small intestine – Linhares, Espírito Santo – 17598; TRICHINELLOIDEA – Trichuridae – ***Capillaria sp.*** – *Didelphis aurita* Wied-Neuwied, 1826 – uterus – Rio de Janeiro, Rio de Janeiro – 7168, 8609, *D. marsupialis* Linnaeus 1758 – palate – Salvador, Bahia – 19256, 19260, 19294, 19295, 19297, 19300, 19302, 19305, 19308, 19309, 19311, 19312, 19319, 19322, 19324, 19326, 19331, 19335, 19338, 19341, 19342, 19449, *Metachirus nudicaudatus* (Desmarest, 1817) – small intestine – Angra dos Reis, Rio de Janeiro – 9130, *Felis catus dom.* (Linnaeus, 1758) – urinary bladder – Rio de Janeiro, Rio de Janeiro – 2727, 2728, 2729, 2999, 5497, *Tadarida brasiliensis* (Geoffroy, 1824) – stomach – Rio de Janeiro, Rio de Janeiro – 6294, ***Eucoleus fluminensis*** (Freitas, 1946) Lopéz-Neira, 1947– *Didelphis marsupialis* – mouth – Belém, Pará – 22652, 22679, ***Trichuris minuta*** (Rudolphi, 1819) – *Chironectes sp.* – cecum – Salesópolis, São Paulo – 17735, *Dasyprocta novemcinctus* Linnaeus, 1758 – large intestine – Belém, Pará – 13500, *Didelphis aurita* – large intestine – Rio de Janeiro and Petrópolis, Rio de Janeiro – 9255-9263, 10036, 10044-10046, *D. marsupialis* – large intestine – Angra dos Reis, Rio de Janeiro, Belém, Pará, Salvador, Bahia, Linhares, Espírito Santo – 15470, 16928, 19201, 19291, 19299, 19301, 19312, 19317, 19452, 33479, *Marmosa murina* (Linnaeus, 1758) – intestine – Belém, Pará – 21361, 21381, ***Trichuris serratus*** (Linstow, 1879) Gedoelst, 1911 – *Felis silvestris* Schreb, 1775 – cecum – São Paulo, São Paulo – 8543, ***Trichuris sp.*** – *Dasyprocta agouti* (Linnaeus, 1776) – cecum – Angra dos Reis, Porta da Ribeira and Rio Estrela, Rio de Janeiro, Cachoeira do Tronco, Pará, Salobra, Mato Grosso do Sul – 6678, 9005, 9006, 9008, 9842, 10048, 12291, *Mus musculus* (Linnaeus, 1758) – cecum – Lorena, São Paulo – 5759, *Philander opossum* (Temnick, 1824) – large intestine – Angra dos Reis, Rio de Janeiro – 5343, *Pseudalopex gymnocercus* (Fisher, 1814) – cecum – Salobra, Mato Grosso do Sul – 13062; ANCYLOSTOMATOIDEA – Ancylostomatidae – ***Ancylostoma braziliense*** Faria, 1910 – *Herpailurus yagouaroundi* (Lacépède, 1809) – body cavity, intestine – Belém, Pará, Salobra, Mato Grosso do Sul – 15061, 16070, 21373-21637, *Puma concolor* (Linnaeus, 1771) – stomach – Zoological Garden, Rio de Janeiro, Rio de Janeiro – 4258, *Leopardus pardalis* (Linnaeus, 1758) – intestine – Piratuba, Pará – 10128, ***A. caninum*** (Ercolani, 1859) Hall, 1913 – *Euphractus sexcinctus* (Linnaeus, 1758) – small intestine – Ilha Seca, São Paulo, Salobra, Mato Grosso do Sul – 5839-5841, 7395, 11861, 15156, 15159, 15164; METASTRONGYLOIDEA – Filarioiidae – ***Filariopsis barretoii*** (Travassos, 1921) Rêgo, 1974 – *Cebus apella* (Linnaeus, 1758) – lungs – Rio de Janeiro, Rio de Janeiro – 6158, 6169, ***Heterostrogylus sp.*** – *Didelphis marsupialis* – lungs – Rio de Janeiro, Rio de Janeiro – 23386, ***Metastrongylus sp.*** – *Didelphis aurita* – nostrils – Sooretama, Espírito Santo – 29494, Protostrongylidae – ***Aelurostrongylus obstrusus*** (Railliet, 1898) Cameron, 1927 – *Herpailurus yagouaroundi* – lungs – Salobra, Mato Grosso do Sul – 15063;

STRONGYLOIDEA – Syngamidae – *Mammomonogamus laryngeus* (Railliet, 1899) Ryzikov, 1948 – *Didelphis marsupialis* – nostrils – Belém, Pará, Vale do Itaúna Espírito Santo, Salvador, Bahia – 15824, 19259, 19334, 19336, 19455, 22680, Eustrongylidae – *Eucyathostomum copulatum* Molin, 1861 – *Dasyprocta azarae* Lichtenstein, 1823 – Salobra, Mato Grosso do Sul – 11862, 12652, 12653, 13433, 15062, ***Strongylus* sp.** – *Agouti paca* – small intestine – Linhares, Espírito Santo – 17598, *Galictis vittata* (Schreb, 1776) – small intestine – Angra dos Reis, Rio de Janeiro – 10096; TRICHOSTRONGYLOIDEA – Heligmonellidae – ***Hassalstrongylus* sp.** – *Akodon cursor* (Winge, 1887) – intestine – Engano and Santa Teresa, Espírito Santo – 14332, 14333, 17682, 17683, *Galea wellsi* Osgard, 1832 – small intestine – Engano, Espírito Santo – 17545, 17546, ***Heligmostrongylus agouti*** (Neiva, Cunha & Travassos, 1914) Durette-Desset & Chabaud, 1981 – *Agouti paca* – Sooretama, Espírito Santo – 29510, ***Heligmostrongylus* sp.** – *Sciurus aestuans* Linnaeus, 1766 – small intestine – Linhares, Espírito Santo – 17664, Molineidae – ***Graphidiops assimilis*** Freitas & Mendonça, 1959 – small intestine – *Tamandua tetradactyla* Linnaeus, 1758 – Salobra, Mato Grosso do Sul – 11402, ***Molineus* sp.** – *Conepatus chinga* (Molina, 1782 – unavailable – Estância, São Gabriel, Rio Grande do Sul – 14004, 14025 a-b, Viannaiidae – ***Travassostrongylus callis*** (Travassos, 1914) Orloff, 1933 – *Didelphis aurita* – small intestine – Rio de Janeiro and Petrópolis, Rio de Janeiro, Sooretama, Espírito Santo – 8426, 8584, 8589, 9118, 9608, 29504, 29505, ***Viannaia hamata*** Travassos, 1914 – *Philander opossum* – intestine – Rio de Janeiro, Rio de Janeiro – 29289, 29290, ***Viannaia* sp.** – *Metachirus nudicaudatus* – small intestine – Angra dos Reis, Rio de Janeiro – 9150; OXYUROIDEA – Oxyuridae – ***Helminthoxys urichi*** Cameron & Reesal, 1951 – *Dasyprocta azarae* – cecum, intestine – Rio de Janeiro and Angra dos Reis, Rio de Janeiro, Salobra, Mato Grosso do Sul – 11460, 11614, 11615, 11844, 11932, 12514, 15066, 15067, 15069-15072, 15075, 15253, 15258, 15265, 15459, ***Syphacia* sp.** – *Akodon cursor* – small intestine – Engano, Espírito Santo, Belém, Pará – 14311, 15736, 15737, 15742-15744, 15763, 15774, 15864, 17862, 17863, 22635-22637; HETERAKOIDEA – Aspidoderidae – ***Aspidodera raillieti*** Travassos, 1913 – *Chironectes* sp. – large intestine – Aurá, Pará – 12291, *Didelphis* sp. – large intestine – Crato, Ceará – 14058, ***A. subulata*** (Molin, 1860) Railliet & Henry, 1912 – *Philander opossum* – large intestine – Santa Teresa, Espírito Santo – 10175 (site and locality unavailable), 14284, 14306, 14310, ***Aspidodera* sp.** – *Marmosa murina* – large intestine – Belém, Pará – 21380, *Didelphis marsupialis* – unavailable – Ubatuba, São Paulo – 13648, Heterakidae – ***Heterakis* sp.** – *Proechymis cayenensis* Desmarest, 1817 – São Marcos, Rio de Janeiro – 18081; ASCARIDOIDEA – Ascarididae – ***Bairdascaris dasydodina*** (Baylis, 1922) Sprent, 1982 – *Euphractus sexcinctus* – small intestine – Lassance, Minas Gerais – 3017, ***Toxascaris leonina*** – *Eira barbara* Linnaeus, 1758 – small intestine – Barranco Alto (Rio Aquidauana), Mato Grosso do Sul – 14563, 14566, *Puma concolor* (Linnaeus, 1771) – small intestine – Rio de Janeiro (Zoological Garden) and Estrela, Rio de Janeiro – 4208, 8994, ***Toxocara canis*** – *Cerdocyon thous* (Linnaeus, 1766) – small intestine – Rio de Janeiro, Rio de Janeiro, 3321, 4516, *Leopardus pardalis* – small intestine – Belém, Pará – 21391, *Puma concolor* – small intestine – Estrela, Rio de Janeiro – 8994, ***Toxocara mistax*** –

*Herpailurus yaguaroundi* – Salobra, Mato Grosso do Sul – 15049, *Felis pardalis* – stomach, intestine – Piratuba, Pará, Porto Cabral, São Paulo – 10086, 15716, 15718, *Panthera onca* (Linnaeus, 1778) – site and locality unavailable – 15706-15708, *Puma concolor* – stomach – Barreiro Rico, São Paulo – 27271, – **Toxocara sp.** – *Felis pardalis* – small intestine – Mato Grosso -8115; COSMOCERCOIDEA – Kathlaniidae – **Cruzia tentaculata** – *Chironectes minimus* – faeces – Rio de Janeiro, Rio de Janeiro – 1590, *Didelphis albiventris* Lund, 1840 – large intestine – Belém, Pará – 21302, *Didelphis sp.* – site unavailable – Rio de Janeiro, Rio de Janeiro – 8398, *Metachirops sp.* – cecum – Rio de Janeiro, Rio de Janeiro – 9633, Subuluridae – **Subulura sp.** – *Didelphis aurita* – large intestine – site and locality unavailable – 10097, *Sciurus aestuans* – large intestine – Angra dos Reis, Rio de Janeiro – 5377; PHISALOPTEROIDEA – Physalopteridae – **Physaloptera digitata** – *Leopardus wiedii* – stomach – Belém, Pará – 13505, **P. papillotruncata** – *Choleopus didactylus* – stomach – Belém, Pará – 13495, **Physaloptera sp.** – *Didelphis aurita* – small intestine – Angra dos Reis, Rio de Janeiro – 8313, *Leopardus wiedii* – small intestine – Belém, Pará – 13493, *Philander opossum* – stomach – Belém, Pará – 14994, 22730, Rictulariidae – **Rictularia sp.** – *Tadarida brasiliensis* – small intestine – Rio de Janeiro, Rio de Janeiro – 7087, **Turgida turgida** – *Chironectes minimus* – stomach – Rio de Janeiro, Rio de Janeiro, Santo Antonio, Pará – 15915, 33461, *Didelphis albiventris* – stomach – Engano, Espírito Santo, Anápolis, Goiás, Rio de Janeiro, Rio de Janeiro – 14876, 18075, 20200, *Didelphis sp.* – stomach, intestine – Angra dos Reis, Rio de Janeiro, Crato, Ceará, Pernambuco, Goiás, Rio Grande do Sul – 8324, 9960, 13966, 14050, 14055, 14056, 14059, 14068, 14070-14073, 14077, 14091, 18804, 18805, *Philander opossum* – stomach – Rio de Janeiro, Rio de Janeiro – 30148; SPIRUOIDEA – Gongylonematidae – **Gongylonema pulchrum** – *Capra hircus* Linnaeus, 1758 – esophagus – Rio de Janeiro, Rio de Janeiro – 19918, 19921, Spirocercidae – **Physocephalus meridionalis** – *Agouti paca* – stomach – Cachoeiro do Tronco, Pará, Engano, Sooretama and Linhares, Espírito Santo, Rio de Janeiro, Rio de Janeiro – 9104, 9631, 10177, 15766, 16934, 16942, 16929, *Dasyprocta azarae* – large intestine – Bodoquena, Mato Grosso do Sul – 13433, 14278, Spiruridae – **Protospirura muris** – *Holochilus physodes melanogaster* (authorship not available) – stomach – Salesópolis, São Paulo – 16690; THELAZIOIDEA – Thelaziidae – **Thelazia iheringi** – *Dasyprocta agouti* – unavailable – Maracajú, Mato Grosso – 18086-18089, *Dasyprocta sp.* – unavailable – Maracajú, Mato Grosso – 18074; FILARIOIDEA – Onchocercidae – **Dipetalonema gracilis** – *Cebus apella* – body cavity – Cachoeira da Paciência, Pará, Salobra, Mato Grosso do Sul – 9032, 29843, 29847, **Dipetalonema sp.** – *Alouatta caraya* (Humboldt, 1812) – body cavity – Barra Sêca, Espírito Santo – 29524, *Chironectes minimus* – peritoneum – Aurá, Pará – 12227, *Dasyprocta sp.* – body cavity – Lassance, Minas Gerais – 3055, *Didelphis marsupialis* – liver (cyst), peritoneum, under the skin – Angra dos Reis and Rio de Janeiro, Rio de Janeiro – 15454, 15455, 29183, *Philander opossum* – under the skin – Petrópolis, Rio de Janeiro, Santa Teresa, Espírito Santo – 8327, 14305, **Dirofilaria repens** – *Nasua nasua* (Linnaeus, 1766) – under the skin, on the heart – Bodoquena and Salobra, Mato Grosso do Sul – 13454, 13455, 14979, 15102-15107, **D. spectans** – *Eira barbara* – heart, pulmonary artery – Salobra, Mato

Grosso do Sul – 11612, *Lontra longicaudis* (Olfers, 1818) – under the skin – Angra dos Reis, Rio de Janeiro – 20108 – *Dirofilaria* sp. – *Cerdocyon thous* – kidney – Salobra, Mato Grosso do Sul – 15160 – *Lontra longicaudis* – under the skin – Angra dos Reis, Rio de Janeiro – 20103, 20104, *Litomosoides petteri* – *Marmosa murina* – pleural cavity – Belém, Pará – 22734, 22735, *Litomosoides* sp. – *Chironectes minimus* – lungs – Aurá, Pará – 12294, 15918, *Didelphis* sp. – under the skin – Sooretama, Espírito Santo – 29496, 29506, *Marmosa murina* – pleural and peritoneal cavities – Belém, Pará – 22733; DRACUNCULOIDEA – Dracunculidae – *Dracunculus* sp. – *Lontra longicaudis* – under the skin – Angra dos Reis, Rio de Janeiro – 8124, *Metachirus nudicaudatus* – under the skin – Bom Retiro, Rio de Janeiro – 1803.

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