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NEMATODES FROM MAMMALS IN BRAZIL: AN UPDATING
NEMATODOS DE MAMÍFEROS DE BRASIL: UNA ACTUALIZACIÓN

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Abstract

The present findings update of previously published results on the nematodes parasitizing Brazilian mammals, with the inclusion of other genera, species and hosts. Measurements and illustrations are only related to the nematodes representing new taxa, and to those that were either redescribed or reported in Brazil occurring in mammals since 1997: *Ancylostoma pluridentatum* (Alessandrini, 1905), *Angiostrongylus lenzii* Souza, Simões, Thiengo, Lima, Mota, Rodrigues-Silva, Lanfredi, Maldonado Jr, 2009, *Anisakis physeteris* Baylis, 1923, *A. simplex* (Rudolphi, 1808) Dujardin, 1845, *A. typica* (Diesing, 1860), *Anisakis* sp., *Ascaris elongata* (Rudolphi, 1819), *Avellaria intermedia* Durette-Desset, Gonçalves & Pinto, 2006, *Cheiropteronema globocephala* Sandground, 1929, *Contracaecum* sp., *Dentostomella translucida* Schulz & Krepkorgorskaya, 1932, *Freitastrongylus angelae* Gonçalves, Pinto & Durett-Desset, 2007, *Gracilioxyuris agilisis* Feijó, Torres, Maldonado Jr & Lanfredi, 2008, *Guerrerostrongylus zetta* (Tavassos, 1937) Sutton & Durette-Desset, 1991, *Hadrostrongylus speciosum* Hoppe & Nascimento, 2007, *Halocercus* (*Posthalocercus*) *kleinenbergi* Delyamure, 1951, *Litomosoides chagasfilhoi* Moraes Neto, Lanfredi& Souza, 1997, *Litomosoidesodilae* Notarnicola & Navone, 2002, *Longistriata myopotami* Petrov & Sadykov, 1969, *Moennigia littlei* Durette-Desset, 1970, *Molinema nattereri* Guerrero & Bain, 2001, *Parabronema pecariae* Ivaschkin, 1960, *Physaloptera herthameyrae* Torres, Maldonado Jr & Lanfredi, 2009, *Pseudoterranova* sp., *Pterygodermatites (Multipectines) pluripectinata* Hoppe, Lima, Tebaldi, Nascimento, 2010, *Stenurus globicephalae* Baylis & Daubney, 1925, *Stilestrongylus lanfrediae* Souza, Digiani, Simões, Luque, Rodrigues-Silva & Maldonado Jr, 2009, *Syphacia carlitosi* Robles & Navone, 2007, *Syphacia kinsellai* Robles & Navone, 2007, *Syphacia mesocriceti* Quentin, 1971, *Thelazia californiensis* Price, 1930, *Trichofreitasi alenti* Sutton &Durette-Desset, 1991, *Trichuris didelphis* Babero, 1960, *Trichuris opaca* Barker & Noyes, 1915, *Trichuris thrichomysi* Torres, Nascimento, Menezes, Garcia, Santos, Maldonado Jr, Miranda, Lanfredi & Souza, 2011, *Viannella trichospicula* Durette-Desset Gonçalves & Pinto, 2006. In addition, checklists of other mammalian hosts for nematode species that already had been referenced in the previous catalogue, are included in the present survey.

Key words: Brazil – mammals - nematodes.

Resumen

Los presentes datos complementan resultados publicados anteriormente que se refieren a los nemátodos de mamíferos brasileños, con la inclusión de otros géneros, especies y huéspedes. Son presentadas medidas e ilustraciones solamente de los nemátodos diagnosticados como nuevos o que tuvieron su descripción ampliada y, también, de los que fueron señalados en Brasil ocurriendo en mamíferos desde 1997: *Ancylostoma pluridentatum* (Alessandrini, 1905), *Angiostrongylus lenzii*

Souza, Simões, Thiengo, Lima, Mota, Rodrigues-Silva, Lanfredi & Maldonado Jr, 2009, *Anisakis physeteris* Baylis, 1923, *A. simplex* (Rudolphi, 1808) Dujardin, 1845, *A. typica* (Diesing, 1860), *Anisakis* sp., *Ascaris elongata* (Rudolphi, 1819), *Avellaria intermedia* Durette-Desset, Gonçalves & Pinto, 2006, *Cheiropteronema globocephala* Sandground, 1929, *Contracaecum* sp., *Dentostomella translucida S*chulz & Krepkorgorskaya, 1932, *Freitastrongylus angelae* Gonçalves, Pinto & Durette-Desset, 2007, *Gracilioxyuris agilisis* Feijó, et al., 2008, *Guerrerostrongylus zetta* (Travassos, 1937) Sutton & Durette-Desset, 1991, *Hadrostrongylus speciosum* Hoppe & Nascimento, 2007, *Halocercus* (*Posthalocercus*) *kleinenbergi* Delyamure, 1951, *Litomosoides chagasfilhoi* Moraes Neto, Lanfredi & Souza, 1997, *Litomosoides odilae* Notarnicola & Navone, 2002, *Longistriata myopotami* Petrov & Sadykov, 1969, *Moennigia littlei* Durette-Desset, 1970, *Molinema nattereri* Guerrero & Bain, 2001, *Parabronema pecariae* Ivaschkin, 1960, *Physaloptera herthameyrae* Torres, Maldonado Jr & Lanfredi, 2009, *Pseudoterranova* sp., *Pterygodermatites (Multipectines) pluripectinata* Hoppe, Lima, Tebaldi & Nascimento, 2010, *Stenurus globicephalae* Baylis & Daubney, 1925, *Stilestrongylus lanfrediae* Souza, Digiani, Simões, Luque, Rodrigues-Silva & Maldonado Jr, 2009, *Syphacia carlitosi* Robles & Navone, 2007, *Syphacia kinsellai* Robles & Navone, 2007, *Syphacia mesocriceti* Quentin, 1971, *Thelazia californiensis* Price, 1930, *Trichofreitasia lenti* Sutton & Durette-Desset, 1991, *Trichuris didelphis* Babero, 1960, *Trichuris opaca* Barker & Noyes, 1915, *Trichuris thrichomysi* Torres, Nascimento, Menezes, Garcia, Santos, Maldonado Jr, Miranda, Lanfredi & Souza, 2011, *Viannella trichospicula* Durette-Desset, Gonçalves & Pinto, 2006. En adición, listas relacionadas a otros huéspedes mamíferos para las especies de nemátodos que habían sido reportados en el catálogo anterior, son incluidas en el presente inventario.

Palabras clave: Brasil - mamíferos - nematodos.

INTRODUCTION

The nematodes parasites of vertebrates in Brazil have systematically been surveyed, since the decade of 1980, with the reports of nematodes from fishes (Vicente *et al.,* 1985), amphibians (Vicente *et al.,* 1991), reptiles (Vicente *et al.,* 1993), birds (Vicente *et al.,* 1995) and mammals (Vicente *et al.,* 1997). Further, and considering that fishes have been investigated for helminths most frequently in Brazil, data on the nematodes infecting this group of hosts and previously published were updated by Vicente & Pinto (1999). With this same criterion, the present results deal with the updating of the catalogue of nematode parasites of mammals, considering the large amount of data related to these nematodes that have not been surveyed so far. This procedure is justified, taking into account that the gathering of detailed information about the nematodes, their classification, morphological and metric data geographical distribution and hosts, besides related bibliographical references in a same publication, facilitate further accesses. The original catalogue of 1997, supplies data on 21 superfamilies, 45 families, 160 genera and 495 species of nematodes parasites of mammals, together with a list of 176 host species, representing 34 families. Therefore, those previous results are now enlarged and updated, with brief morphological, metric and figurative data on 36 nematode species distributed in 12 superfamilies, 17 families, 27 genera, occurring in 46 of the 107 mammalian host species that also appeared infected with nematodes that although previously reported (Vicente *et al.,* 1997), were found in other hosts and thus are included in the check lists presented here. Results based only on the identification of nematode eggs in stool samples were not taken into account.

MATERIAL AND METHODS

The bibliographical survey related to the nematode parasites of mammals in Brazil was obtained from 1995 onwards (to exclude the period of editing process regarding the paper published in 1997) and was in accordance with

databases available in *CAB International*, *Current Contents*, *Index Catalogue*, *Helminthological Abstracts* and *Zoological Records*. The adopted systematical classification of nematodes was mostly based on Anderson (1978), Vicente *et al*. (1997) and Gibbons (2010). Measurements are in millimeters (mm). Scale bars of the figures appear either in millimeters (mm) or micrometers (μm), depending on the original sources from which the most relevant data and illustrations were extracted. Specific names of mammalian host species are reproduced in accordance with original references.

RESULT

Genera and/or species of nematodes from Brazilian mammals not referred by Vicente *et al.* (1997).

ANCYLOSTOMATOIDEA

Ancylostoma pluridentatum (Alessandrini, 1905) (Ancylostomatidae) (Figs 1-6).
Brief morphometric data:
Males: 7-8 long, 0.29 wide in the middle of body. Buccal capsule 0.13-0.17 wide. Two pairs of teeth in the anterior and ventral portion of the mouth, together with three small teeth on each side of the dorsal wall. Esophagus 0.63-0.74 long. Nerve ring anterior to the middle of esophagus. Spicules slender, 1.15-1.17 long. Gubernaculum 0.06-0.07 long, 0.01 wide. Caudal bursa 0.47-0.55 wide. A rugged structure is present on each side of the cloaca, appearing granular under light microscopy.

Females: 10.0-11.0 long, 0.34-0.37 wide in the region of vulva. Buccal capsule 0.16-0.21 wide. Distribution of teeth as described for the males. Esophagus 0.73-0.80 long. Nerve ring as in the males. Vulva near the beginning of the posterior third of body. Tail 0.12-0.17 log, gradually attenuated. The slender bristle that is inserted in the tip of the tail is 0.01-0.02 long.
(Modified and adapted from Schwartz, 1927).
Hosts: *Leopardus wiedii* (Schniz, 1821) and *Puma concolor* (Linnaeus, 1771).
Infection site: intestine.
Localities: municipalities of Duque de Caxias, State of Rio de Janeiro, Belém, State of Pará and State of Amazonas (*sensu lato*).
References: Alessandrini (1905), Schwartz (1927), Thatcher (1971), Noronha *et al*. (2008) and Vieira *et al*. (2008).

HELIGMOSOMOIDEA
Avellaria Freitas & Lent, 1934
Emended diagnosis: Viannaiidae, Viannaiinae, with didelphic female; synlophe with ventral ridges strongly developed in anterior part of body, caudal bursa of type 1-3-1 with large rays 4, straight spicules with small and marked handle. Parasites of Neotropical Agoutidae and Dasyproctidae. Type species: *Avellaria avellari* Freitas & Lent, 1934. (After Durette-Desset *et al*., 2006).

Another species: *Avellaria intermedia* Durette-Desset, Gonçalves & Pinto, 2006

A. intermedia Durette-Desset, Gonçalves & Pinto, 2006 (Figs 4-6).

Brief morphometric data:
Males: 4.0 long, 0.13 wide. Cephalic vesicle 0.09 long, 0.04 wide. Synlophe with longitudinal cuticular ridges, distributed in groups of 12, 16 and 17, close to the cephalic vesicle, esophagus-intestine junction, and mid-body, respectively. Nerve ring, excretory pore and deirids 0.27, 0.32 and 0.33 from the anterior end, respectively. Esophagus and spicules 0.42 and 0.29 long, respectively. Gubernaculum absent. Caudal bursa of the type 1-3-1.
Females: 4.9 long, 0.13 wide. Cephalic vesicle 0.07 long, 0.04 wide. Synlophe as observed in males. Nerve ring, excretory pore and deirids 0.20, 0.29 and 0.31 from anterior end, respectively. Esophagus 0.52 long. Vulva 1.3 from posterior extremity. Ovejector and uterus 0.36 and 1.95 long, respectively. Eggs 0.05 long, 0.03 wide. Tail conical, 0.06 long, with round extremity. (Modified and adapted from Durette-Desset *et al*., 2006).

Host: *Dasyprocta fuliginosa* Wagler, 1832.
Site of infection: small intestine.
Locality: municipality of Barcelos, State of Amazonas.
Reference: Durette-Desset *et al*. (2006).
Viannella trichospicula Durette - Desset, Gonçalves & Pinto, 2006 (Viannaiidae)(Figs 7-11).

Brief morphometric data:
Males: 2.4 long, 0.07 wide. Cephalic vesicle 0.05 long, 0.02 wide. Synlophe with eleven longitudinal, continuous cuticular ridges (4 dorsal, 7 ventral). Nerve ring, excretory pore and deirids 0.13, 0.17 and 0.21 from the anterior end, respectively. Esophagus and spicules 0.29 and 0.14 long, respectively. Gubernaculum absent. Caudal bursa of the type 1-3-1.
Females: 2.9 long, 0.07 wide. Cephalic vesicle 0.07 long, 0.025 wide. Synlophe with twelve longitudinal, continuous cuticular ridges (5 dorsal, 7 ventral). Nerve ring, excretory pore and deirids 0.18, 0.22 and 0.23 from the anterior end, respectively. Esophagus 0.31 long. Vulva 0.22 from posterior end. Ovejector and uterus 0.10 and 0.44 long, respectively. Eggs 0.05 long, 0.03 wide. Tail thin, with sharp point, 0.08 long. (Modified and adapted from Durette-Desset *et al*., 2006).
Host: *Dasyprocta fuliginosa* Wagler, 1832.
Site of infection: small intestine.
Locality: municipality of Barcelos, State of Amazonas.
Reference: Durette-Desset *et al*. (2006).

Guerrerostrongylus Sutton & Durette-Desset, 1991
Diagnosis: Heligmonellidae. Nippostrongylinae worms with more than 8 mm long. Synlophe with at least, 40 cuticular ridges; ridges unequal in length on the anterior of the body and of equivalent size at midbody; caudal bursa with rays 6 and dorsal lobe showing hypertrophy. Genital cone not hypertrophied. Tail of female not bent, invaginable. Parasites of Cricetids and Caviomorphs. Type species: *Guerrerostrongylus uruguayiensis* Sutton & Durette-Desset, 1991. Another species: *Guerrerostrongylus zeta* (Travassos, 1937) Sutton & Durette-Desset, 1991 [= *Longistriata zeta* Travassos, 1937 = *Hassalstrongylus zeta** (Travassos, 1937) Durette -Desset, 1971]. (Modified and adapted from Sutton & Durette-Desset, 1991).
* This species although referred in the previous catalogue of 1997, has recently been reported in Brazil as *Guerrerostrongylus zeta* by Simões *et al*. (2011) and, for this reason, is included here, with its present generic diagnosis.
Guerrerostrongylus zeta (Travassos, 1937) Sutton & Durette-Desset, 1991
Hosts: *Akodon cursor* Winge, 1887, *Akodon montensis* (Thomas, 1913) and *Oligoryzomys nigripes* Olfers, 1818.
Site of infection: intestine.
Locality: Serra dos Órgãos (Órgãos Mountain) and vicinity, Rio de Janeiro, State of Rio de Janeiro.
References: Sutton & Durette-Desset (1991) and Simões *et al*. (2011).

Stilestrongylus lanfrediae Souza, Digiani, Simões, Luque, Rodrigues-Silva & Maldonado Jr, 2009 (Heligmonellidae)(Figs 12-14).

Brief morphometric data:
Males: 4.42 long, 0.1 wide. Cephalic vesicle 0.05 long, 0.02 wide. Synlophe with longitudinal, continuous cuticular ridges with the following distribution: 23 at the level of esophagus-intestine junction, 26 in mid-body, 23 anterior to caudal bursa. Excretory pore, deirids and nerve ring 0.23, 0.21 and 0.13 from anterior end, respectively. Esophagus and spicules 0.34 and 1.08-1.09 long, respectively. Gubernaculum 0.02 in diameter. Genital cone well developed 0.06 long, 0.05 wide. Caudal bursa with the left lobe more developed than the right, both of the type 2-2-1.

Females: 4.4 long, 0.12 wide. Cephalic vesicle 0.06 long, 0.025 wide. Synlophe with longitudinal, continuous cuticular ridges with the following distribution: 25 at the level of esophagus-intestine junction, 25 at mid-body, 25 anterior to vulvar aperture. Excretory pore and nerve ring 0.24 and 0.13 from anterior end, respectively. Esophagus 0.35 long. Vulva 0.04 from posterior extremity. Ovejector (*vagina vera* + vestibulum + sphincter + infundibulum) and uterus 0.14 and 1.02 long, respectively. Eggs 0.06 long, 0.03 wide. Tail 0.02 long. (Modified and adapted from Souza *et al*., 2009a).

Hosts: *Akodon cursor* Winge, 1887, *Akodon montensis* (Thomas, 1913) and *Oligoryzomys nigripes* Olfers, 1818.
Site of infection: small intestine.
Locality: Serra dos Órgãos (Órgãos Mountain), municipality of Teresópolis, State of Rio de Janeiro.
Reference: Souza *et al.* (2009a) and Simões *et al*. (2011).

Trichofreitasia Sutton & Durette-Desset, 1991
Diagnosis: Heligmononellidae. Body length over 8 mm. Synlophe: longitudinal articular ridges of arête type, perpendicular to body surface except anterior, where there is an oblique axis of orientation. Male: bursa with large lateral lobes. Spicules delicate. Genital cone not enlarged. Female: cuticle inflated at level of ovejector. Posterior end strongly curved ventrally. Parasites of small intestine of South American Cricetidae (*Oryzomys flavescens*). Type species: *Trichofreitasia lenti* Sutton & Durette-Desset, 1991 (After Gibbons 2010).
Trichofreitasia lenti Sutton & Durette-Desset, 1991 (Figs 74-76).

Brief morphometric data:
Males: body 7.0 long, 0.20 wide at mid-region; cephalic vesicle 0.06 long, 0.04 wide. Nerve ring, excretory pore and deirids, 0.22, 0.37 and 0.39 from anterior end, respectively. Esophagus 0.41 long. Caudal bursa subsymmetrical of the 2-2-1 type, with hypertrophy of the lateral lobes. Spicules filiformes, alate, 0.24 long with joined but not fused extremities. Gubernaculum is triangle-like, 0.04 long, 0.37 wide at its base.

Females: body 13.4 long, 0.30 wide at mid-region; cephalic vesicle 0.07 long, 0.04 wide. Nerve ring, excretory pore and deirids, 0.29, 0.42 and 0.45 from anterior end, respectively. Esophagus 0.47 long. Monodelphic. Vulva at 0.14 from posterior extremity. *Vagina vera*, vestibule, sphincter and tube, 0.02, 0.19, 0.08 and 0.19 long, respectively. Uterus 3.0 long. Eggs 0.07 long, 0.04 wide. Posterior extremity strongly inflated at a distance of 0.33 from the vulvar aperture. Tail 0.05 long ventrally curved. (Modified and adapted from Sutton & Durette-Desset, 1991).

Hosts: *Akodon cursor* Winge, 1887, *Akodon montensis* (Thomas, 1913) and *Oligoryzomys nigripes* Olfers, 1818.
Site of infection: small intestine.
Locality: Serra dos Órgãos (Órgãos Mountain), municipality of Teresópolis, State of Rio de Janeiro.
References: Sutton & Durette-Desset (1991), Simões *et al*. (2011).

METASTRONGYLOIDEA

Angiostrongylus lenzii Souza, Simões, Thiengo, Lima, Mota, Rodrigues-Silva, Lanfredi & Maldonado, Jr., 2009 (Metastrongylidae)
(Figs 15-17).
Brief morphometric data:
Males: body 9.3-14.1 long, 0.2 wide. Esophagus 0.23 from anterior end. Caudal bursa, slightly asymmetrical, type 2-3-1. Spicules with strongly cuticularized sheath, thick, 0.35-0.39 long ending in sharp tips, representing 2.8% of the body length. Gubernaculum present. One pair of adcloacal papillae.

Females: 22.1-25.9 long, 0.30-0.40 wide at midbody. Esophagus 0.20-0.24 long. Excretory pore and nerve ring 0.33-0.45 and 0.081-0.10 from anterior end, respectively. Monodelphic. Vulva anterior to anus, with prominent lips. Vulva and anus 0.31-0.36 and 0.061-0.080 from caudal end, respectively. Tail long, slightly ventrally curved. Eggs 0.05-0.10 long, 0.030-0.050 wide. (Modified and adapted from Souza *et al*., 2009b).
Host: *Akodon montensis* Thomas, 1913.
Site of infection: pulmonary artery.
Locality: Serra dos Órgãos (Órgãos Mountain), municipality of Teresópolis, State of Rio de Janeiro.
Reference: Souza *et al*. (2009b).

Stenurus Dujardin, 1845
Diagnosis: Pseudaliidae. Nematodes with buccal cavity highly developed, with thick walls, perityls present. Lateral lobes of caudal bursa united at the posterior end of the body. Dorsal ray also highly

developed, with a terminal papilla, ventral ray fused to form a pair of small appendages with dilated or bifid tips. Lateral trunk-like structures often trifid terminally, with an additional digitiform papilla often present near the base. Spicular shaft rudimentary, gubernaculums weakly developed. Parasites of cranial sinuses of Delphinidae, Procoenidae and Monodontidae. Type species: *Stenurus minor* (Kühn, 1829) Dujardin, 1845. (Modified and adapted from Anderson, 1978).

Stenurus globicephalae Baylis & Daubney, 1925
(Figs 18-20).
Brief morphometric data:
Males: body 28.1-31.7 long, 0.32-0.42 wide. Buccal capsule 0.025-0.040 wide in anterior and 0.055-0.075 in posterior part. Oral capsule + esophagus 0.50-0.60 long. Nerve ring, deirids and excretory pore, 0.16-0.20, 0.19-0.25 and 0.47-0.55 from anterior end, respectively. Caudal bursa not distinctly lobed, consisting of five rays. Cuticle considerably swollen in front of bursa, forming two prominent globular alae. Spicules 0.11-0.13 long. Gubernaculum 0.040-0.065 long.

Females: body 38.9-47.9 long, 0.56-0.66 wide. Buccal capsule 0.040-0.065 in anterior and 0.075-0.090 in posterior part. Oral capsule + esophagus 0.52-0.70 long. Nerve ring, deirids and excretory pore, 0.17-0.25, 0.20-0.29 and 0.49-0.65 from anterior end, respectively. Posterior end truncate, with subterminal protuberances. Vulva 0.040-0.075 from anus, sometimes with a spherical cuticular swelling on anterior lip. Eggs 0.037-0.055 long, 0.025-0.045 wide. Anus 0.040-0.075 from posterior end. (Modified and adapted from Zylber *et al*., 2002).

Hosts: *Peponocephala electra* Gray, 1846, *Globicephala macrorhynchus* Gray, 1846.
Site of infection: tympanic bullae.
Locality: northeastern coast of Brazil.
References: Zylber *et al*. (2002) and Carvalho *et al*. (2010).

Halocercus (*Posthalocercus) kleinenbergi* Delyamure, 1951 (Pseudalidae)
(Figs 34-39).
Brief morphometric data:
Males: 61.9-108.1 long, 0.33-0.49 wide. Buccal capsule 0.007-0.010 wide. Esophagus 0.14-0.25 long, 0.02-0.03 wide. Caudal end turning ventrally and with a non lobate copulatory bursa with rudimentary rays. Bursa oval 0.058-0.079 long, 0.10-0.14 wide, and provided with a pair of ventral rays, a pair of lateral rays and one dorsal ray. In front of bursa, there is a strong protuberance standing across body. Base of protuberance 0.07-0.10 long, in lateral view. Spicules curved, equal, flagele-like, 0.74-0.85 long, 0.02 wide. Gubernaculum well chitinized, serpentine, forming 5-7 curves in its extent. Proximal end wide, distal end pointed, 0.17-0.20 long, 0.01 wide. Cloca 0.026-0.036 from posterior end.

Females: 193.0-293.0 long, 0.49-0.61 wide. Buccal capsule 0.01 wide. Esophagus 0.16-0.20 long. Vulva situated in front of anus, 0.076-0.087 from caudal end and 0.045-0.064 from anus. Eggs 0.053-0.060 long, 0.038-0.041 wide. (Modified and adapted from Delyamure, 1951).
Host: *Sotalia guianensis* van Bènéden, 1864.
Site of infection: lungs.
Locality: northeastern coast of Brazil.
References: Delyamure (1951) and Carvalho *et al*. (2010),

HELIGMOSOIDEA

Longistriata myopotami Petrov & Sadykov, 1969 (Heligmosomidae)
(Fig. 21).
Brief morphometric data:
Males: 3.5-5.4 long, 0.16-0.20 wide. Cephalic vesicle 0.05-0.08 long, 0.03-0.04 wide. Esophagus 0.32-0.43 long. Caudal bursa tri-lobed, asymmetrical 0.28-0.32 wide. Spicules 0.18-0.19 long.

Females: 3.8-6.9 long, 0.20-0.26 wide. Cephalic vesicle 0.08 long, 0.04-0.05 wide. Esophagus 0.38-0.48 long. Vulvar opening in the posterior portion of the body, 009- 0.12 from tail tip; tail 0.05-0.06 long. Eggs 0.06-0.08 long, 0.03 wide. (Modified and adapted from Ryzhikov *et al*., 1979).
Host: *Myocastor coypus* Molina, 1782.
Site of infection: small intestine.
Locality: municipality of Rio Grande, State of Rio Grande do Sul.
References: Petrov & Sadykov (1959), Ryzhikov *et al*. (1979), Paulsen & Brum (1999).

Freitastrongylus Gonçalves, Pinto & Durette-Desset, 2007
Diagnosis: Heligmonellidae, Pudicinae. Synlophe with carene poorly developed in relation to other ridges, 4 dorsal, 6 ventral continuous ridges at mid-body. Caudal bursa of type 1-4. Dorsal ray well developed divided mid-way. Rays 9 shorter than rays 10, arising proximally to the middle region of dorsal ray. Female monodelphic. Parasites of Dasyproctidae. Type species: *Freitastrongylus angelae* Gonçalves, Pinto & Durette-Desset, 2007.
F. angelae Gonçalves, Pinto & Durette-Desset, 2007 (Figs 22-26).
Brief morphometric data:
Males: 7.7 long, 0.13 wide. Cephalic vesicle 0.08 long, 0.04 wide. Six cuticular longitudinal ridges. Nerve ring, excretory pore and deirids, 0.27, 0.35 and 0.53 from anterior end, respectively. Esophagus and spicules 0.56 and 0.72 long, respectively. Genital cone 0.21 long, 0.03 wide. Gubernaculum absent. Caudal bursa almost symmetrical, with dorsal lobe well developed.

Females: 10.8 long, 0.15 wide. Cephalic vesicle 0.08 long, 0.04 wide. Six rows of longitudinal cuticular ridges. Nerve ring, excretory pore and deirids, 0.24, 0.34 and 0.55 from anterior extremity, respectively. Esophagus 0.57 long. Vulvar aperture 0.17 from anterior end. Ovejector and uterus 0.15 and 1.98 long, respectively. Eggs 0.07 long, 0.04 wide. Tail conical, 0.06 long, bent dorsally. (Modified and adapted from Gonçalves *et al*., 2007).

Hosts: *Dasyprocta leporina* (Linnaeus, 1758) and *Dasyprocta fuliginosa* Wagler, 1832.
Site of infection: stomach.
Locality: municipality of Barcelos, State of Amazonas.
Reference: Gonçalves *et al*. (2007).

Hadrostrongylus Hoppe & Nascimento, 2007
Diagnosis: Molinaeidae, Anoplostrongylinae. Non-spiral nematodes. Cuticle with evident longitudinal striations, especially on the ventral surface. Cephalic dilatation finely striated. Simple oral opening, with slight evidence of lips, but without capsule or buccal ring. Cervical papillae absent. Didelphic,amphidelphic females, with tendency to prodelphy, and with the vulvar opening located on the last third of the body. Male with ample, trilobed copulatory bursa, type 2-1-2. Genital cone well developed, with distinct accessory membrane. Synlophe with ventral-dorsal orientation. Type species: *Hadrostrongylus speciosum* Hoppe & Nascimento, 2007.

H. speciosum Hoppe & Nascimento, 2007 (Figs. 27-30).
Brief morphometric data:
Males: 3.88-5.29 long, 0.05-0.08 wide. Cephalic dilatation 0.06-0.09 wide. Synlophe formed by four ventral ridges, with ventral-dorsal orientation extending along the body. Nerve ring and excretory pore, 0.15-0.19 and 0.36-0.43 from anterior end, respectively. Esophagus 0.15-0.34 long. Spicules unequal, the left 0.20-0.23, the right 0.16-0.18 long. Gubernaculum 0.12-0.17 long. Genital cone large and well developed. Caudal bursa type 2-1-2, broad, trilobed.

Females: 4.70-6.47 long, 0.07-0.12 wide. Cephalic dilatation 0.06-0.08 wide. Nerve ring and excretory pore 0.12-0.22 and 0.27-0.40 from anterior end, respectively. Ovejector 0.19-0.29 long. Vulvar opening and anus 0.96-1.18 and 0.08-0.11 from tail end, respectively. Terminal spine 0.009-0.01 long. Eggs 0.04-0.06 long, 0.03-0.04 wide. (Modified and adapted from Hoppe & Nascimento, 2007).
Host: *Dasypus novemcinctus* Linnaeus, 1758.
Sites of infection: mucosa and lumen of the cecum and colon.
Locality: municipality of Aquidauana, State of Mato Grosso de Sul.
Reference: Hoppe & Nascimento (2007).

Moennigia littlei Durette-Desset, 1970 (Molineidae) (Figs 31-33).
Brief morphometric data:
Males: 2.2 long, 0.04 wide at mid-body. Synlophe formed by 14 longitudinal cuticular ridges; cross sections show 5 dorsal ridges, 2 ridges (1 right, 1

left) that are more developed and 7 ventral ridges. Cephalic vesicle 0.02 in diameter. Nerve ring, excretory pore and deirids at 0.16, 0.18 and 0.18 from anterior end, respectively. Muscular esophagus 0.09 long, glandular esophagus 0.21. Spicules complex, 0.09 long. Gubernaculum 0.05 long, genital cone well developed. Caudal bursa sub symmetrical.

Females: 2.7 long, 0.05 wide at mid-body. Synlophe as described for the males. Cephalic vesicle 0.03 in diameter. Nerve ring, excretory pore and deirids at 0.17, 0.22

and 0.22 from anterior end, respectively. Muscular esophagus 0.10 long, glandular esophagus 0.20. Vulva 0.45 from posterior end. Tail, thin, pointed, 0.10 long. (Modified and adapted from Durette-Desset, 1970).
Site of infection: small intestine.
Host: *Dasypus novemcinctus* Linnaeus, 1758.
Locality: municipality of Aquidauana, State of Mato Grosso de Sul.
References: Durette-Desset (1970) and Hoppe & Nascimento (2007).

Cheiropteronema Sandground, 1929
Diagnosis: Molineidae. Long filiform nematodes with finely striated cuticle. Buccal cavity very shallow and without an obvious cuticularized capsule. Esophagus without posterior swelling. Caudal bursa narrow, consisting of two lateral lobes and supported by well-developed rays of reduced number. (Modified and adapted from Sandground, 1929).

Cheiropteronema globocephala Sandground, 1929 (Figs 77-79).
Brief morphometric data:
Males: body 14.00-19.40 long, 0.4 wide at mid-region. Esophagus 0.42-0.50 long. Caudal bursa formed by two lateral lobes, supported by six short rays. Dorsal ray undivided and slender. Postero-lateral ray widely separated from median and externo-lateral rays which are joined. Ventro-ventral and latero-ventral rays equal and parallel. Genital cone prominent projecting into the caudal bursa. Spicules equal, 0.36-0.41 long. Gubernaculum slender, 0.035 long.

Females: body 22.5 long, 0.41 wide. Esophagus 0.54 long. Anus 0.10 from caudal extremity. Tail blunty rounded bearing two subdorsal and one ventral rounded mucrones and a short, fine median hair-like process. Vulva dividing body in proportions of 55:44. Eggs 0.10-0.11 long, 0.06-0.073 wide. (Modified and adapted from Sandground, 1929, Chitwood, 1938).

Host: *Antibeus planirostris* (Spix, 1823).
Site of infection: small intestine.
Locality: Parque Nacional da Serra do Divisor (Divisor Mountain National Park), State of Amazonas.
References: Sandground (1929), Chitwood (1938), Durette-Desset & Tchéprakoff (1977), Durette-Desset & Vaucher (1988) and Nogueira *et al*. (2004).

OXYUROIDEA

Dentostomella Schulz & Krepkorgorskaya, 1932
Diagnosis: Heteroxynematidae, Heteroxynematinae. Cuticle transversely striated, without cephalic vesicle or lateral flanges. Two pairs of submedian head papillae. Lips absent. Buccal cavity moderately large; esophagus short, thick, armed at its anterior with small pointed teeth, 5 on each of its tripartite wall, with postequatorial constriction at nerve ring. Male: tail tapering to a sharp point, provided around the cloacal aperture with a cuticular swelling which is broadest and thickest in front of the cloaca and extends backward, diminishing gradually, in form of paired lateral ridges, to beyond the posterior postcloacal papillae. On the precloacal ventral surface of this vesicle the cuticle is divided into numerous small plates in pavement-like pattern. Four pairs of caudal papillae: 1 large adcloacal pair, 1 pair on

postcloacal protuberance, flanked by 1 pair of laterals and 1 pair asymmetrically arranged at about middle of tail. Spicule single, with a median incision at its blunt tip. Female: tail conical, pointed; vulva in anterior half of body, ovejector forming a conspicuous egg reservoir; eggs large, elongate, asymmetrical. Parasitic in the intestine of rodents. Type species. *Dentostomella translucida* Schulz & Krepkorgorskaya, 1932. (Adapted and modified from Yamaguti, 1961; Pilitt & Wightman, 1979).

D. translucida Schulz & Krepkorgorskaya, 1932 (Figs 40-42).
Brief morphometric data:
Males: 13.4 long, 0.28 wide. Lips absent. Esophagus 0.30 long. Nerve ring 0.16 from anterior extremity. Caudal alae wide, strong, with plakelike markings on the vental surface. Spicule single, 0.30 long. Four pairs of caudal papillae: 1 par ad-cloacal, 1 pair on the protuberance just after the cloaca, followed by two other pairs. Cloacal aperture 0.34 from posterior extremity.

Females: 21.8 long, 0.48 wide. Esophagus 0.32 long. Nerve ring and vulva 0.22 and 11.48 from anterior end, respectively. Eggs 0.10 long, 0.03 wide. Rectum with strongly muscular walls. Anus 0.70 from posterior extremity. (Modified and adapted from Pinto *et al*., 2003).
Host: *Meriones unguiculatus* (Milne-Edwards, 1867).

Site of infection: anterior portion of the small intestine.
Localities: pet shops in the municipalities of Rio de Janeiro (maintenance), and Magé (source), State of Rio de Janeiro.
References: Pilitt & Wightman (1979) and Pinto *et al*. (2003).

Gracilioxyuris Feijó, Torres, Maldonado Jr & Lanfredi, 2008
Diagnosis:
General: Oxyuridae. Anterior end dome shaped, mouth opening apically surrounded by 3 distinc lips, 4 submedian labial papillae, and 2 amphids. Cephalic vesicle weakly developed. Lateral alae well developed, composed by 2 longitudinal crests. Male: area rugosa as a ventral keellike elevation with transverse striations. Four pairs of caudal papillae, first and second pair adcloacal, third pair minute, just posterior to clocal aperture, last pair at caudal end. Phasmids dorsally located. Gubernaculum present. No tail tip. Female: excretory pore and vulva closely located in first third of body. Thick muscular vagina and genital tract didelphic. Eggs oval, operculated, with ridges and unembryonated. Type species: *Gracilioxyuris agilisis* Feijó, Torres, Maldonado Jr & Lanfredi, 2008
G. agilisis Feijó, Torres, Maldonado Jr & Lanfredi, 2008 (Figs 43, 44).
Brief morphometric data:
Males: body 0.99-1.12 long, 0.12-0.16 wide at mid-body. Esophagus with bulb 0.23-0.29 long. Nerve ring, excretory pore and area rugosa 0.060-0.079, 0.18-0.24 and 0.40-0.68 from anterior end, respectively. Area rugosa at mid-body, a keellike elevation with coarse transverse striations, ending just anterior to cloaca. Four pairs of caudal papillae, 2 pairs adcloacal and 2 pairs postcloacal. Tail 0.041-0.062 long. Spicule straight, sharp pointed, 0.078-0.10 long. Gubernaculum present. Vestigial caudal appendix dorsally located.

Females: body 2.82-4.56 long, 0.23-0.35 wide at mid-body. Esophagus with bulb, 0.34-0.45 long. Nerve ring, excretory pore and vulva 0.076-0.11, 0.36-0.68 and 0.38-0.77 from anterior end, respectively. Genital tract didelphic. Anus as a transversal slit at posterior end. Tail conical, 0.48-0.69 long. Eggs oval, operculated, 0.084-0.096 long, 0.028-0.034 wide, shell surface finely granulated, with 3 smooth longitudinal ridges. (Modified and adapted from Feijó *et al*., 2008).
Host: *Gracilinanus agilis* (Burmeister, 1854).
Site of infection: cecum.

Localities: Nhumirim farm, Pantanal Matogrossense (wetlands of the State of Mato Grosso), Rio Negro farm, Nhecolândia subregion, State of Mato Grosso do Sul.
Reference: Feijó *et al*. (2008).
Syphacia carlitosi Robles & Navone, 2007 (Oxyuridae)(Figs 80-81).
Brief morphometric data:

Males: body 0.9-1.5 long, 0.08-0.18 wide. Nerve ring, and excretory pore, 0.06-0.10 and 0.30-030 from anterior end, respectively. Deirids, cervical and lateral alae absent. Total esophagus 0.12-0.31 long. Diameter of esophageal bulb 0.039-0.093. Anterior, median and posterior mamelons, 0.031-0.075, 0.030-0.087 and 0.031-0.12 long, respectively. Distance of anterior, median and posterior mamelons from anterior extremity, 0.30-0.54, 0.44-0.72 and 0.56-1.20, respectively. Spicule 0.060-0.085 long. Gubernaculum 0.03-0.04 long.

Females: body 4.20-7.67 long, 0.17-0.35 wide. Nerve ring, excretory pore and cervical alae, 0.08-0.18, 0.34-0.68 and 0.025-0.040 from anterior end, respectively. Deirids and lateral alae absent. Total esophagus 0.36-0.55 long. Diameter of esophageal bulb 0.090-0.18. Distance of vulva from anterior extremity 0.65-1.20. Tail 0.70-1.25 long. Eggs 0.07-0.10 long, 0.020-0.037 wide. (Modified and adapted from Robles & Navone, 2007a).

Hosts: *Akodon cursor* Winge, 1887, *Akodon montensis* (Thomas, 1913) and *Oligoryzomys nigripes* Olfers, 1818.
Site of infection: small intestine.
Locality: Serra dos Órgãos (Órgãos Mountain), municipality of Teresópolis, State of Rio de Janeiro.
References: Robles & Navone (2007a) and Simões *et al*. (2011).

Syphacia kinsellai Robles & Navone, 2007 (Figs 82-83).

Brief morphometric data:
Males: Body 1.29 long, 0.22 wide. Deirids and lateral alae absent. Total esophagus and esophageal bulb, 0.29 and 0.08 long, respectively. Nerve ring and excretory pore, 0.12 and 0.40 from anterior end, respectively. Three characteristic equidistant ventral mamelons. Anterior mamelon protruded 0.062 long, median and posterior mamelons 0.075 and 0.087 long, respectively. Spicule and gubernaculum 0.11 and 0.05 long, respectively. Tail 0.14 long. Three pairs of pedunculate papillae: 01 pair precloacal, 01 pair adcloacal and 01 pair postcloacal.

Females: Body 3.61 long, 0.26 wide. Deirids present, lateral ale absent. Total esophagus and esophageal bulb, 0.46 and 0.12 long, respectively. Nerve ring, excretory pore and vulva at 0.15, 0.62 and 0.81 from anterior end, respectively. Vulva is not prominent. Eggs 0.087 long, 0.041 wide. (Modified and adapted from Robles & Navone, 2007b).

Hosts: *Akodon cursor* Winge, 1887, *Akodon montensis* (Thomas, 1913) and *Oligoryzomys nigripes* Olfers, 1818.

Site of infection: small intestine.
Locality: Serra dos Órgãos (Órgãos Mountain), municipality of Teresópolis, State of Rio de Janeiro.
References: Robles & Navone (2007b) and Simões *et al*. (2011).

Syphacia mesocriceti Quentin, 1971 (Figs 45-47)
Brief morphometric data:
Males: 1.3 long, 0.08 wide, with 3 prominent cuticular "mamelons" on the ventral surface of posterior portion. Esophagus with bulb, 0.19 long. Nerve ring and excretory pore 0.08 and 0.30 from the anterior end, respectively. Spicule single, 0.05 long with a hook-like process at the distal end. Gubernaculum present. Three pairs of caudal papillae. Cloaca 0.14 from posterior extremity.

Females: 4.5 long, largura 0.16 wide. Esophagus with bulb, 0.34 long. Nerve ring, excretory pore and vulva 0.13, 0.52 and 0.13 from anterior end, respectively. Eggs 0.13 long, 0.04 wide. Anus 0.36 from posterior extremity. (Modified and adapted from Pinto *et al*, 2001).

Host: *Mesocricetus auratus* (Waterhouse, 1839).
Site of infection: small intestine.
Locality: pet shops in Rio de Janeiro, State of Rio de Janeiro.
References: Dick *et al*. (1973) and Pinto *et al*. (2001).

ASCARIDOIDEA
Diagnosis: Anisakidae. Three lips each bearing a bilobed anterior projection which carries the single

dentigerous ridge; interlabia absent. Excretory gland with duct opening between ventro lateral lips; esophagus with anterior muscular portion and posterior ventriculus, the latter being oblong and sometimes sigmoid or else as broad as long. No esophageal appendix or intestinal cecum; vulva in middle or first third of body. Spicules unequal. Precloacal papillae numerous; postcloacal papillae including a group of three or four pairs set close to the tip of the tail on the ventral side. Parasites in the stomach and intestine of marine mammals. Type species: *Anisakis dussumieri* (van Beneden, 1870), species *inquirenda*. Genotype: *Anisakis simplex* (Rudolphi, 1809, det. Krabe, 1878). (After Davey, 1971).

Anisakis physeteris Baylis, 192 (Figs 48-50).

Brief morphometric data:
General: the spicules of the male are quite tiny, being less than 0.4 mm. in length. The difference in length between left and right spicules is comparatively slight, the ratio being about 1 : 1-12, but the consistent and marked difference in spicule size between this species and *A. simplex* (lowest ratio 1 : 1-17) hardly allows of any confusion between these two and still less with *A. typica.*

The postcloacal papillae consist of 4 pairs of papillae near the tip of the tail but only one or two pairs of papillae, which may be double, close behind the cloaca. The form of the ventriculus is also markedly different being short and never sigmoid. It has the same sphincter-like arrangement at the junction with the oesophagus but the remaining thin walled part is much shorter. The whole ventriculus may be broader than it is long. The vulva opens in the first third of the body. There is the presence of three rows of tiny denticulations immediately behind the anus.

Males: body 24.90 long, 0.51 wide. Lips 0.09 long. Anterior esophagus 2.38 long, posterior ventriculus 0.35 long. Nerve ring 0.42 from anterior end. Spicules 0.26 long. Caudal papillae about 33 pairs in number: 25 precloacal, 3 adcloacal, 5 postcloacal.

Females: vulva 8.6 from anterior end. A single egg is 0.09 long, 0.06 wide. (Modified and adapted from Davey, 1971, Santos & Lodi, 1998).

Hosts: *Kogia breviceps* (De Blainvillei, 1838), *Physeter catodon* Linnaeus, 1758 and *Sotalia guianensis* (van Bènéden, 1864).

Site of infection: stomach.
Localities: Praia Cacimba do Padre (Cacimba do Padre Beach) Arquipélago de Fernando de Noronha (Fernando de Noronha Archipelago), State of Pernambuco, municipality of Arraial do Cabo, State of Rio de Janeiro and Brazilian Atlantic Coast (*lato sensu*).
References: Davey (1971), Santos & Lodi (1998), Iñiguez *et al*. (2009), Muniz-Pereira *et al.* (1999) and Luque *et al*. (2010).

Anisakis simplex (Rudolphi, 1808) Dujardin, 1845 (Figs 51-53).
Brief morphometric data:
General: dorsal lip is distinguished by a broader basal portion as contrasted with the rounded base of each ventrolateral lip. Each lip has a bilobed anterior projection which bears the dentigerous ridge on the inner surface. The base of the dorsal lip has two double papillae, one at each corner, while each ventro-lateral lip, has one papilla. The ventriculus is often, but not invariably, sigmoid. The junction of esophagus and ventriculus suggests a sphincter-like arrangement, beyond which the ventriculus is a thin walled tube that connects obliquely with the intestine.

Males: right spicule 1.25-2.35 long, left spicule 1.75-3.75, in a ratio of 1:1.17. Precloacal papillae numerous, postcloacal consisting of a group of 4 pairs near the tip of the tail, separated by a gap from a variable number, usually 2 or 4 pairs of papillae just behind the cloaca.

Females: the vulva is always close to mid-body. (Modified and adapted from Davey, 1971).
Hosts: *Feresa attenuata* Gray, 1874, *Phocoena dioptrica* Lahille, 1912 and *Pseudorca crassidens* Owen, 1845.
Site of infection: stomach.
Localities: Littoral of the States of São Paulo and Rio Grande do Sul.
References: Davey (1971) and Luque *et al*. (2010).

Anisakis typica (Diesing, 1860) (Figs 54-56).
Brief morphometric data:
General: body widened more immediately behind

the lips, making the lips look smaller in proportion to the body Anterior bilobed projection of the dorsal lip is more pinched off from the basal portion. Ventriculus sigmoid.

Males: right spicule 0.70-1.50 long, left spicule 2.20-3.90, in a ratio of 1:3. Precloacal papillae numerous. Postcloacal papillae 3 pairs near the tip of the tail and a rather variable number, between 5 and 8 pairs, of small papillae close to the cloaca.
Females: vulva at mid-body. (Modified and adapted from Davey, 1971).

Hosts: *Kogia breviceps* (De Blainvillei, 1838), *Globicephala macrorhynchus* (Gray, 1846), *Peponocephala electra* (Gray, 1846), *Pontoporia blainvillei* (Gervais & D'Orbigny, 1844), *Sotalia fluviatilis* (Gervais, 1853), *Sotalia guianensis* (van Bènéden, 1864), *Stenella coeruleoalba* (Meyen, 1833), *Stenella clymene* (Gray, 1846), *Stenella longirostris* (Gray, 1828) and *Steno bredanensis* (Lesson, 1828).
Site of infection: stomach.
Localities: south, southeastern and northeastern Atlantic coast of Brazil.
References: Davey (1971), Santos, *et al*. (1996), Iñiguez *et al*. (2009), Motta *et al*. (2008), Muniz-Pereira *et al*. (2009), Carvalho *et al*. (2010), Luque *et al*. (2010) and Iñiguez *et al*. (2011).

Anisakis sp.
Hosts: *Grampus griseus* (Cuvier, 1812), *Kogia breviceps* (De Blainvillei, 1838), *Kogia sima* Owen, 1886, *Lagenodelphis hosei* Fraser, 1956, *Peponocephala electra* (Gray, 1846), *Physeter macrocephalus* Linnaeus, 1758, *Sotalia guianensis* (van Bènéden, 1864), *Stenella clymene* (Gray, 1850), *Stenella coeruleoalba* (Meyen, 1833), *Stenella frontalis* (Cuvier, 1829), *Stenella longirostris* (Gray, 1828), *Steno bredanensis* (Lesson, 1828) and *Tursiops truncatus* (Montagu, 1821).

Sites of infection: stomach and intestine.
Localities: Littoral of the States of Bahia, Ceará, Paraná, São Paulo and northeastern coast of Brazil (*sensu lato*).
References: Motta *et al*. (2008), Carvalho *et al*. (2010) and Luque *et al*. (2010).

Ascaris elongata Rudolphi, 1819* (Ascarididae) (*species inquirenda*)
Host: *Alouatta belzebul ululata* Elliot, 1912.
Locality: Brazil.

*Although this species has recently been referred by Muniz-Pereira *et al*. (2009), Sprent (1968) reports: "…..The inadequacy of the descriptions of the following species recovered from Primates prevents their inclusion in the genus *Ascaris*: *elongata* Rudolphi, 1819, p. 650… According to G. Hartwich (personal communication) the type material of *A. elongata* in the Berlin Zoological Museum was lost during the Second World War, 1939-45".

Contracaecum Railliet & Henry, 1912
Diagnosis: Anisakidae. Lips without denticulate margins. Interlabia well developed. Ventriculus reduced, with a enlarged posterior appendix. Intestinal cecum present. Males without defined caudal alae, with numerous precloacal papillae. Postcloacal papillae more than seven pairs, partially subventral and lateral. Spicules long, alate, equal or subequal. Gubernaculum absent. Vulva in the anterior portion of the body. Oviparous. Parasites of fishes, birds and piscivorous mammals. Type species: *Contracaecum* (*Contracaecum*) *spiculigerum* (Rudolphi, 1819) Railliet & Henry, 1912. (Modified and adapted from Vicente *et al*., 1993).

Contracaecum sp.
Host: *Sotalia guianensis* (van Bènéden, 1864).
Site of infection: stomach.
Locality: Littoral of the State of Espírito Santo.
Reference: Luque *et al*. (2010).
Pseudoterranova Mozgovoy, 1951
Diagnosis: Anisakidae. Anisakinae. Lips weakly dilated anteriorly, with ridged margins, interlabia absent. Excretory pore near the base of the subventral lips. Excretory gland ventrally located extending downwards without reaching the intestine level. Ventricular appendix absent, intestinal cecum present. Males with subequal spicules, three postcloacal dentigerous ridges. Females with vulva located in the anterior third of the body. Parasites of marine mammals. Type species *Pseudoterranova kogiae* (Johnston & Mawson, 1939) Gibson, 1983 (Modified and adapted from Tavares & Luque, 2006).

Pseudoterranova sp.
Hosts: *Balaenoptera borealis* (Lesson, 1828), *Balaenoptera physalus* (Linnaeus, 1758) and *Kogia breviceps* (De Blainvillei, 1838).
Site of infection: stomach.

Locality: Praia Cacimba do Padre (Cacimba do Padre Beach), Arquipélago de Fernando de Noronha (Fernando de Noronha Archipelago), State of Pernambuco.
References: Santos & Lodi (1998), Tavares & Luque (2006), Muniz-Pereira *et al*. (2009) and Luque *et al*. (2010).

PHYSALOPTEROIDEA

Physaloptera herthameyrae Torres, Maldonado Jr, Lanfredi, 2009 (Physalopteridae) (Figs 57, 58).
Brief morphometric data:
Males: body 18.6-35.2 long, 0.71-0.97 wide. Muscular esophagus 0.54-0.81 long, glandular esophagus 3.19-7.05. Nerve ring, deirids and excretory pore, 0.40-0.57, 0.39-0.65 and 0.76-0.95 from anterior end, respectively. Posterior of body bent ventrally. Ventral surface with three different cuticular patterns. Distribution of caudal papillae: 2 pairs of pedunculate precloacal papillae, 7 sessile small papillae surrounding the cloacal aperture, 2 pairs of pedunculate adcloacal papillae, 2 pairs anterior to the phasmids, followed by 1 pair of posterior papillae. Spicules unequal, the left 0.37-0.42, the right 0.31-0.37 long. Cloaca 0.73-0.75 from posterior end.

Females: 26.5-41.5 long, 0.92-1.32 wide. Muscular esophagus 0.75-0.99 long, glandular esophagus 4.0-8.2. Nerve ring, deirids and excretory pore, 0.47-0.68, 0.86-1,1 and 0.90-1.2 from anterior end, respectively. Vulva 5.71-10.1 from anterior extremity. Eggs 0.04 long, 0.03 wide. Anus 0.37-0.66 from posterior extremity. (Modified and adapted from Torres *et al*., 2009).

Host: *Gracilinanus agilis* Burmeister, 1854.
Site of infection: stomach.
Locality: Fazenda Alegria (Alegria farm), Pantanal (Pantanal wetlands) and State of Mato Grosso do Sul.
Reference: Torres *et al*. (2009).

RICTULARIOIDEA

Pterygodermatites (Multipectines) pluripectinata Hoppe, Lima, Tebaldi & Nascimento, 2010 (Rictulariidae)
(Figs 84-88).
Brief morphometric data.
Males: body 8.77 long, 0.25 wide. Buccal capsule 0.033 long, 0.032 wide. Muscular esophagus 0.37 long, glandular 2.086. Nerve ring 0.16 from anterior end. . The subventral rows of cuticular plates are composed of 105-114 blade-like projections, hiding the excretory pore opening. The posterior extremity of body is mildly coiled, ventrally grooved, with 02 pairs of precloacal papillae, 01 pair of ad-cloacal, 06 pairs of post cloacal plus 01 pair at the tip of the tail. Numerous rounded verruciform cuticular thickenings surround the cloacal aperture. Anterior to the caudal alae there are 8-9 semicircular striated plate-like projections lying between the ventral-lateral cuticular rows. Spcules equal and similar 0.25 long. Gubernaculum absent.

Females: body 15.77 long, 0.29 wide. Buccal capsule 0.038 long, 0.028 wide. Muscular esophagus 0.38 long, glandular 2.53. Nerve ring 0.19 from anterior end. The subventral rows of cuticular plates are composed of 116-150 blade-like projections, hiding the excretory pore opening. Forty-eight to 60 of these projections are anterior to the pre-equatorial vulvar aperture, 0.40 from the esophageal-inestinal junction. The peri-vulvar cuticular projections are less developed. Eggs 0.038 long, 0.028 wide. Strongly tapered tail, with terminal spine and anal opening 0.19 from tail tip. The anal cuticular projections are small, with spine-like aspect. (Modified and adapted from Hoppe *et al*, 2010).

Host: *Cerdocyon thous* (Linnaeus, 1766).
Site of infection: small intestine.
Locality: Municipality of Patos, State of Paraíba.
Reference: Hoppe *et al*. (2010).

HABRONEMATOIDEA

Parabronema pecariae Ivaschkin, 1960 (Habronematidae) (Figs 59-61)

Brief morphometric data:
General: The cuticle of the head is thick and folded forming a circlet of six horseshoe-shaped auricular appendages, of which two are lateral and two are subventral.

Males: body 7.99-8.75 long, 0.08-0.12 wide. Buccal cavity 0.09-0.10 long. Anterior portion of esophagus 0.12-0.16, posterior 1.12-1.26 long. Nerve ring 0.13-0.18 from anterior extremity. Tail coiled ventrally, lateral alae near the posterior extremity. The spicules are markedly unequal, the left slender 0.85-0.91 long, and the right stouter 0.27-0.28 long. Gubernaculum somewhat triangular, 0.03-0.04 long. Six pairs of pedunculate caudal papillae and one pair sessile: 4 pairs are precloacal and 3 postcloscsl. Cloacal aperture 0.14 from the posterior end.

Females: body 14.28-22.78 long, 0.10-0.15 wide. Buccal cavity 0.09-0.14 long. Anterior portion of esophagus 0.16-0.22, posterior 1.26-1.40. Nerve ring and vulva 0.19-0.22 and 3.43-4.90 from anterior end, respectively. Tail short, conically pointed or blunt and characteristically curved towards the dorsal side. Eggs elongate, 0.032-0.036 long, 0.007-0.010 wide. Anal aperture 0.13-0.16 from posterior end. (Modified and adapted from Vicente *et al*. 2000).
Hosts: *Pecari tajacu* (Linnaeus, 1758), *Tayassu pecari* (Link, 1795).
Sites of infection: intestine, stomach.
Localities: municipalities of Belém and Cachoeira, State of Pará, Estrela, State of Rio de Janeiro and Salobra, State of Mato Grosso.
Reference: Vicente *et al*. (2000).

THELAZIOIDEA

Thelazia californiensis Price, 1930 (Thelaziidae)
(Figs 62-64).
Brief morphometric data:
Male: body 7.65 long, 0.25 wide. Oral aperture simple, surrounded by six small and inconspicuous papillae. Buccal capsule 0.04 long, 0.02 wide. Esophagus 0.38 long. Nerve ring 0.23 from anterior extremity. Left spicule slender, 2.01 long. Right spicule stout, 0.16 long. Gubernaculum 0.02 long, easily overlooked. Cloacal aperture 0.09 from posterior end. (Modified and adapted from Pinto *et al*. 1998).
Host: *Mazama gouazoupira* (Fisher, 1814)
Site of infection: surface of the eye ball.
Locality: municipality of Tapajós, State of Pará.
Reference: Pinto *et al*. (1998).

FILARIOIDEA

Litomosoides chagasfilhoi Morais Neto, Lanfredi, Souza, 1997 (Onchocercidae)
(Figs 65-69).
Brief morphometric data:
Males: body 21.9-30.0 long, 0.14-0.15 wide. The buccal capsule is 0.01-0.02 in height, 0.003-0.004 wide. Esophagus 0.51-0.58 long. Tail 0.14-0.18 long, wingless. Left spicule 0.29-0.31 long, the right 0.81-0.94. Left spicule is featured by a handle longer than the blade, with a chitinized spindle. The posterior of the body presents four coils and shows one pair of adcloacal papillae, four to six pairs of postcloacal and one single papilla near the end of the tail. The cloacal opening and the area rugosa, with bands of discoid cuticular prominences are ventrally located.

Females: body 86.9-95.0 long, 0.30-0.34 wide. The buccal capsule is 0.01-0.02 in height, 0.003-0.004 wide. Esophagus 0.60-0.77 long. Tail 0.37-0.60 long, with two phasmids at the tip. Vulva 1.3-2.25 from anterior end. Viviparous. (Modified and adapted from Moraes Neto *et al*., 1997).
Host: *Akodon cursor* (Winge, 1887).
Site of infection: abdominal cavity.
Locality: District of Catimbau Grande, municipality of Rio Bonito, State of Rio de Janeiro.
References: Moraes Neto *et al*. (1997) and Moraes Neto *et al*. (2001).

Litomosoides odilae Notarnicola & Navone, 2002
(Figs 89-92).
Brief morphometric data:
Males: posterior region coiled through 4 loops. Left

spicule with blade shorter than handle, blade with cuticularized axis. Right spicule heavily cuticularized, dorsal heel with terminal cap. Cloacal aperture strongly protruded with 4 pairs of conspicuous postcloacal papillae, symmetrically placed. Area rugosa composed of transverse ridges of small longitudinal crests, generally extending through the coiled portion. Body 17.42 long, 0.14 wide; buccal capsule 0.02 long, external diameter 0.007; nerve ring 0.24 from apex; esophagus 0.43 long, left and right spicules 0.24 and 0.11 long, respectively. Area rugosa 2.04 long, beginning at 3.6 from tip of the tail.

Females: anterior region robust. Vulva is posterior to esophago-intestinal junction, vagina globular. Ovejector coiled. Tail slightly curved ventrally, with parallel or divergent phasmids. (Modified and adapted from Notarnicola & Navone, 2002).

Hosts: *Akodon cursor* Winge, 1887, *Akodon montensis* (Thomas, 1913) and *Oligoryzomys nigripes* Olfers, 1818.
Locality: Serra dos Órgãos (Órgãos Mountain), municipality of Teresópolis, State of Rio de Janeiro.
References: Notarnicola & Navone (2002) and Simões *et al*. (2011).

Molinema nattereri Guerrero & Bain, 2001 (Onchocercidae) (Figs 70-73).

Brief morphometric data:
Males: 32.6-33.4 long, 0.17-0.18 wide at mid-body. Buccal capsule 0.009 long, 0.016 wide. Muscular esophagus 0.38-0.42 long; glandular esophagus 0.88-1.38. Nerve ring 0.23-0.26 from anterior end. Tail 0.28-0.34 long. Caudal papillae: 3 pairs of pre-cloacal and 1 median papilla, 6 pairs of post-cloacal and 2 pairs of sub terminal papillae. Rugose area 3.4-4.0 long, distance of cuticular rows 0.02. Left spicule 0.26 long, right spicule 0.11, in a ratio of 1: 2.32.

Females: measurements of 2 anterior and 2 posterior portions: anterior 34.0 and 12.0, posterior 15.0 and 5.5. Buccal capsule 0.006-0.01 long, 0.01 wide. Muscular esophagus 0.35-0.36 long; glandular esophagus 0.90-1.12. Nerve ring 0.18 from anterior end. Vulva at the esophageal region, 0.40-0.45 from anterior extremity. Ovejector 2.8 long. Tail slender, bent ventrally, 0.25-0.27 long. (Modified and adapted from Guerrero & Bain, 2001).
Host: *Echimys* (?) *didelphoides* Desmarest, 1817.
Site of infection: abdominal cavity.
Locality: State of Mato Grosso (*sensu lato*).
Reference: Guerrero & Bain (2001).

TRICHINELLOIDEA

Trichuris didelphis Babero, 1960
(Trichurida (Figs 94-95).

Brief morphometric data:
Males: Total length 12.5-16.7. Esophageal region 8.50-10.7; thick portion of body 4.0-5.9. Width of head 0.018-0.021; of mid-esophageal region 0.084-0.11; at junction of esophagus and intestine 0.140-0.182; of rear body 0.21-0.28. Spicule 0.90-1.22 long. Spicular sheath extending 0.098- 0.15 to the end of body, covered with small spines. Cloaca 1.28-1.60 long.

Females: Total length 13.3-20.1. Esophageal region 8.50-13.7; thick portion of body 4.8-6.4. Width of head 0.012-0.015; of mid-esophageal region 0.099-0.10; bacillary band absent. Vulva muscular, non salient, smooth, 0.074-0.4 from intestinal-esophageal junction. Vagina + ovejector 0.63-0.84 long. Eggs 0.062-0.069 long, 0.030 wide, excluding opercula 0.045-0.054 long. Rectum 0.15-0.17 from subterminal anus. (Modified and adapted from Babero, 1960).
Host: *Didelphis albiventris* (Lund, 1840).
Site of infection: intestine.
Locality: Neighborhood of Pampulha, municipality of Belo Horizonte, State of Minas Gerais.
References: Babero (1960) and Silva & Costa (1999).

Trichuris opaca Barker & Noyes, 1915 (Figs 93).

Brief morphometric data:
Males: length 21.8-24.9; esophageal region 13.1-14.5; tick portion of body 8.7-10.4 long. Spicule 1.20-1.36 long. Spicular sheath (prepuce) usually extends about 0.10-0.15 beyond rear end of the body, where it ends in center of an ellipsoidal expansion about 0.16-0.18 long. Total length of spicular sheath about 0.18-0.25. Sheath and proximal half of expansion densely covered with small spines; these become shorter and sparse before being replaced beyond equatorial region of expansion by longitudinal ridges about 0.03 long. Spicular diverticulum leaves cloaca 0.23-0.36 from distal end of body. Cloaca 1.7-2.1 long. Ejaculatory duct and vas deferens, 2.1-2.6 and 4.0-5.5 long, respectively. Testis with about 24-28 lobulations, originates near proximal end of cloaca, about 1.70-2.10 from posterior extremity of body.

Females: length 21.9-23.7; esophageal region 14.3-15.1; tick portion of body 7.6-8.6 long. Ratio of thick to esophageal portions of body about 1:1.7-1:1.9. Vulva about 0.05-0.20 posterior to esophagus/intestine junction. Ovejector 0.5 long. Eggs 0.059-0.062 long, 0.029-0.033 wide. Rectum 0.25-0.43 long. Anus usually subterminal, occasionally terminal. (Modified and adapted from Tiner, 1950).
Host: *Chaetomys subspinosus* (Olfers, 1818).
Site of infection: intestine.
Locality: Salvador, State of Bahia.
References: Tiner (1950) and Kuniy & Brasileiro (2006).

Trichuris thrichomysi Torres, Nascimento, Menezes, Garcia, Santos, Maldonado Jr, Miranda, Lanfredi, Souza, 2011 (Figs 96)
Brief morphometric data:
Males: body 14.5-17.8 long. Esophagus 7.0-8.5 long, posterior of body 8.7-9.3 long. Width of esophageal region at tip, 0.04-0.08; in midregion 0.10-0.15; at esophagus-intestinal junction 0.17-0.18. Single testis with 33-38 lobes. Spicule 1.86-2.78 long.

Females: body 27.5-32.3 long. Esophagus 12.7-15.8 long, posterior of body 15.7-17.3 long. Width of esophageal region at tip, 0.04-0.08; in midregion 0.08-0.13; at esophagus-intestinal junction 0.19-0.28. Vulva located at 0.12-0.15 from anterior extremity. Eggs 0.07 long, 0.03 wide. Rectum 0.40-0.51 long. (Modified and adapted from Lopes Torres *et al*., 2011).
Hosts: *Thrichomys apereoides* Lund, 1839 and *T. pachyurus* (Wagner, 1845).
Site of infection: intestinal mucosal surface.
Localities: municipality of Capitão Andrade, State of Minas Gerais, Nhumirin farm, Pantanal region (Pantanal wetlands) State of Mato Grosso do Sul.
Reference: Torres *et al*. (2011).

Nematode species/groups from mammals previously referred by Vicente *et al*. (1997) occurring in other hosts

The sequence of presentation refers to the taxon (*taxa*) in *italics*/plain, in alphabetical order in each section, host (s) in ***italics/bold***, site (s) of infection, locality (ies), and bibliographical reference (s).
Aspidodera raillieti Travassos, 1913, *Capillaria* sp. *Cruzia tentaculata* (Rudolphi, Rudolphi, 1819) Travassos, 1917, *Gongylonema* sp., *Travassostrongylus orloff* Travassos, 1935, *Turgida turgida* (Rudolphi, 1819) Travassos, 1919, *Viannaia hamata* Travassos, 1914, ***D. albiventris***, intestine, neighborhood of Pampulha, Belo Horizonte, State of Minas Gerais.
Reference: Silva & Costa (1999).

Aspidodera raillieti Travassos, 1913, *Aspidodera vazi* Proença, 1937, ***Tolypeutes tricinctus*** (Linnaeus, 1758), intestine, State of Piauí, *Crassicauda crassicauda* (Creplin, 1829) Leiper & Atkinson, 1915, ***Balaenoptera borealis*** Lesson 1828, penis, urethra, intestine, municipality of Arraial do Cabo, State of Rio de Janeiro, ***Balaenoptera physalus*** (Linnaeus, 1758), penis, urethra, intestine, State of Rio de Janeiro, *Crassicauda* sp., ***Kogia breviceps*** (Blainville,

1838), muscle, pleura, penis, northeastern coast, *Dipetalonema caudispina* (Molin, 1858) Diesing, 1861, ***Brachyteles arachnoides*** (Geoffroy, 1806), ***Leonthoptecus chrysopygus*** (Mikan, 1826), ***Leontopithecus rosalia*** (Linnaeus, 1766), ***Saguinus bicolor*** (Spix, 1823), abdominal cavity, localities unavailable, *Halocercus brasiliensis* Almeida, 1933, ***Sotalia fluviatilis*** (Gervais, 1853), southeastern coast, *Halocercus brasiliensis* Almeida, 1933, ***Stenella coeruleoalba*** (Meyen, 1833), littoral of the State of São Paulo, ***Stenella clymene*** (Gray, 1850), lungs, northeastern coast, ***Stenella longirostris*** (Gray, 1828), lungs, northeastern coast, *Halocercus* sp., ***S. guianensis***, lungs, northeastern coast, ***Stenella coeruleoalba*** (Meyen, 1833, lungs, northeastern coast, ***S. longirostris***, lungs, northeastern coast, ***Stenella*** sp. lungs, northeastern coast, *Physaloptera dilatata* (Rudolphi, 1819) Dujardin, 1845, ***Leontopithecus rosalia*** (Linnaeus, 1766), ***Chiropotes satanas*** (Hoffmannsegg, 1807), intestine, site of infection unavailable. (Modified and adapted from Muniz-Pereira *et al*., 2009 and Carvalho *et al*., 2010).
References: Santos *et al*. (1996), Muniz-Pereira *et al*. (1999), Muniz-Pereira *et al*. (2009), Carvalho *et al*. (2010) and Luque *et al*. (2010).

Cooperia pectinata (Linstow, Ransom, 1907, *Cooperia punctata* (Linstow, 1907) Ransom, 1907, ***Mazama americana*** (Erxleben, 1777), ***Mazama gouazoubira*** (Fisher, 1814), ***Ozotocerus besoarticus*** (Linnaeus, 1758), ***Blastocerus dichotomus*** (Illiger, 1815), *Haemonchus contortus* (Molin, 1860) Kadenazi, 1948, ***M. americana***, ***M. gouazoubira***, ***O. besoarticus***, *Haemonchus similis* Travassos, 1914, *Trichostrongylus axei* (Cobbold, 1879) Railliet & Henry, 1909, *Trichostrongylus colubriformis* (Giles, 1892) Ransom, 1911, ***M. americana***, ***M. gouazoubira***, ***O. besoarticus***, ***B. dichotomus***, municipalities of Promissão, SP (specimens of ***B. dichotomus***), Coxim, Pedro Gomes and Corumbá (Pantanal wetlands), State of Mato Grosso do Sul. (Modified and adapted from Nascimento *et al*., 2000).
Reference: Nascimento *et al*. (2000).

Dirofilaria spectans Freitas & Lent, 1949, ***Lontra longicaudis*** Olfers, 1818, Lagoa da Conceição (Conceição Lagoon), municipality of Florianópolis, State of Santa Catarina.
Reference: Soto (2000).

Syphacia (*Syphacia*) *criceti* (Vaz & Pereira, 1934) Quentin, 1969, ***Mesocricetus auratus*** (Waterhouse, 1839), pet shops, Rio de Janeiro, State of Rio de Janeiro.
Reference: Pinto *et al*. (2001).

Trypanoxyuris (*Trypanoxyuris*) *minutus* (Schneider, 1866) Inglis & Diaz-Ungria, 1960, ***Alouatta guariba clamitans*** Cabrera, 1940, State of Rio Grande do Sul.
Reference: Amato *et al*. (2002).

Dipetalonema graciliformis Freitas, 1964, ***Saguinus mystax*** (Spix, 1823), Manaus, State of Amazonas, *Mododontus* sp., ***Cacajao calvus*** (Geoffroy, 1847, Rio Japurá (Japurá River), State of Amazonas.
Reference: Gonçalves *et al*. (2002).

Litomosoides brasiliensis Almeida, 1936, ***Anoura caudifer*** (Geoffroy, 1818), body cavity, State of Amapá.
Reference: Mourão *et al*. (2002).

Aelurostrongylus obstrusus (Railliet, 1898) Cameron, 1927, ***Herpailuris yaguarondi***, (Lacépède, 1809), municipality of Salobra, State of Mato Grosso do Sul, *Ancylostoma braziliense* Faria, 1910, ***H. yaguarondi***, Belém, State of Pará, municipality of Salobra, State of Mato Grosso do Sul, ***Puma concolor*** (Linnaeus 1771), Zoological Garden, Rio de Janeiro, State of Rio de Janeiro, ***Leopardus pardalis*** (Linnaeus, 1758), municipality of Piratuba, State of Pará, *Ancylostoma caninum* (Ercolani, 1859) Hall, 1913, ***Euphractus sexcinctus*** (Linnaeus, 1758), Ilha Seca (Seca Island), State of São Paulo, municipality of Salobra, State of Mato Grosso do Sul, *Aspidodera* sp., ***Marmosa murina*** (Linnaeus, 1758), ***Didelphis marsupialis*** Linnaeus, 1758), municipality of Ubatuba, State of São Paulo, Belém, State of Pará, *Aspidodera raillieti* Travassos, 1913, ***Chironectes*** sp., municipality of

Aurá, State of Pará, ***Didelphis*** sp., municipality of Crato, State of Ceará, *Aspidodera subulata* (Molin, 1860) Railliet & Henry, 1912, ***Philander opossum*** Linnaeus, 1758, municipality of Santa Tereza, State of Espírito Santo, *Bairdascaris dasypodina* (Baylis, 1922) Sprent, 1982, ***E. sexcinctus***, municipality of Lassance, State of Minas Gerais, *Capillaria* sp., ***Didelphis aurita*** Wied-Neuwied, 1826, Rio de Janeiro, State of Rio de Janeiro, *Cruzia tentaculata* Travassos, 1917, ***Chironectes minimus*** (Zimmermann, 1780), Rio de Janeiro, State of Rio de Janeiro, ***Didelphis albiventris*** Lund, 1840, Belém, Pará, ***Didelphis*** sp., Rio de Janeiro, State of Rio de Janeiro, ***Metachirops*** sp., Rio de Janeiro, State of Rio de Janeiro, *Dipetalonema* sp., ***Alouatta caraya*** (Humboldt, 1812), municipality of Barra Seca, State of Espírito Santo, ***Chironectes minimus*** (Zimmermann, 1780), municipality of Aurá, State of Pará, ***Dasyprocta*** sp., municipality of Lassance, State of Minas Gerais, ***D.marsupialis***, municipality of Angra dos Reis, State of Rio de Janeiro, ***P. opossum***, municipality of Petrópolis, State of Rio de Janeiro, municipality of Santa Teresa, State of Espírito Santo, *Dipetalonema gracilis* (Rudolphi, 1809) Diesing, 1861, ***Cebus apella*** (Linnaeus, 1758), Cachoeira de Paciência (Paciência Fall), State of Pará, municipality of Salobra, State of Mato Grosso do Sul, *Dirofilaria* sp., ***Cerdocyon thous*** (Linnaeus, 1766), municipality of Salobra, State of Mato Grosso do Sul, ***L. longicaudis*** (Olfers, 1818), municipality of Angra dos Reis, State of Rio de Janeiro, *Dirofilaria repens* Railliet & Henry, 1911, ***Nasua nasua*** (Linnaeus, 1766), municipalities of Bodoquena and Salobra, State of Mato Grosso do Sul, *Dirofilaria spectans* Freitas & Lent, 1949, ***Eira barbara*** (Linnaeus, 1758), municipality of Salobra, State of Mato Grosso do Sul, ***L. longicaudis***, municipality of Angra dos Reis, State of Rio de Janeiro, *Dracunculus* sp., ***L. longicaudis***, municipality of Angra dos Reis, State of Rio de Janeiro, ***Metachirus nudicaudatus*** Desmarest, 1817, municipality of Bom Retiro, State of Rio de Janeiro, *Eucoleus fluminensis* (Freitas, 1946) Lopéz-Neyra, 1947, ***D. marsupialis***, Belém, State of Pará, *Eucyathostomum copulatum* Molin, 1861, ***Dasyprocta azarae*** Lichtenstein, 1823, municipality of Salobra, State of Mato Grosso do Sul, *Filariopsis barretoi* (Travassos, 1921) Rêgo, 1974, ***Cebus apella*** (Linnaeus, 1758), Rio de Janeiro, State of Rio de Janeiro, *Gongylonema pulchrum* Molin, 1857, ***Capra hircus*** Linnaeus, 1758, Rio de Janeiro, State of Rio de Janeiro, *Graphidiops assimilis* Freitas & Mendonça, 1959, ***Tamandua tetradactyla*** Linnaeus, 1758, municipality of Salobra, State of Mato Grosso do Sul, *Hassalstrongylus* sp., ***A. cursor***, ***Galea wellsi*** Osgard, 1832, municipalities of Engano and Santa Teresa, State of Espírito Santo, *Heligmostrongylus* sp, ***Sciurus aestuans*** Linnaeus, 1766, municipality of Linhares, State of Espírito Santo, *Heligmostrongylus agouti* (Neiva, Cunha & Travassos, 1914) Durette-Desset & Chabaud, 1981, ***Agouti paca*** (Linnaeus, 1766), municipality of Soóretama, State of Espírito Santo, *Helminthoxys urichi* Cameron & Reesal, 1951, ***D. azarae***, municipalities of Rio de Janeiro and Angra dos Reis, State of Rio de Janeiro, municipality of Salobra, State of Mato Grosso do Sul, *Heterakis* sp., ***Proechymis cayenensis*** Desmarest, 1817, municipality of São Marcos, State of Rio de Janeiro, *Heterostrongylus* sp., ***D. marsupialis***, Rio de Janeiro, State of Rio de Janeiro, *Litomosoides* sp., ***Chironectes minimus***, municipality of Aurá, State of Pará, *Litomosoides petteri* Bain, Petit & Berteax, 1980, ***M. murina***, Belém, State of Pará, *Mammomonogamus laryngeus* (Railliet, 1899) Ryzikov, 1948, ***D. marsupialis***, Belém, State of Pará, Vale do Itaúna (Itaúna Valley), State of Espírito Santo, Salvador, State of Bahia, *Molineus* sp. ***Conepatus chinga*** (Molina, 1782), State of Rio Grande do Sul, *Metastrongylus* sp., ***D. aurita***, municipality of Soóretama, State of Espírito Santo, *Physaloptera* sp. ***D. aurita***, municipality of Angra dos Reis, State of Rio de Janeiro, ***Leopardus wiedii*** (Schinz, 1821), ***Philander opossum***, Belém, State of Pará, *Physaloptera digitata* Schneider, 1866, ***Leopardus wiedii***, Belém, State of Pará, *Physaloptera papillotruncata* Molin, 1860, ***Choleopus didactylus*** Linnaeus, 1758, Belém, State of Pará, *Physocephalus meridionalis* (Molin, 1860) Hall, 1916, ***Agouti paca*** (Linnaeus, 1766), municipalities of Cachoeiro do Tronco, State of Pará, Engano, Soóretama and Linhares, State of Espírito Santo, *Protospirura muris* (Gmelin, 1790) Seurat, 1915, ***Holochilus physodes melanogaster*** (Olfers, 1818), municipality of Salesópolis, State of São Paulo, *Rictularia* sp., ***Tadarida brasiliensis*** (Geoffroy, 1824), State of Rio de Janeiro, *Strongyloides* sp., ***Agouti paca***, municipality of Linhares, State of Espírito Santo, *Strongylus* sp.,

Agouti paca, municipality of Linhares, State of Espírito Santo, *Subulura* sp., ***Didelphis aurita***, locality unavailable, *Syphacia* sp., ***Akodon cursor***, municipality of Engano, State of Espírito Santo, Belém, State of Pará, *Thelazia iheringi* Travassos, 1918, ***Dasyprocta agouti*** Linnaeus, 1766, municipality of Maracajú, State of Mato Grosso, *Toxascaris leonina* (Linstow, 1902) Leiper, 1907, ***Eira barbara***, municipality of Barranco Alto, Rio Aquidauana (Aquidauana River), State of Mato Grosso do Sul, ***Puma concolor*** (Linnaeus 1771), Zoological Garden, Rio de Janeiro and municipality of Estrela, State of Rio de Janeiro, *Toxocara* sp., ***Felis pardalis*** Linnaeus, 1758, State of Mato Grosso, *Toxocara canis* (Werner, 1782) Stiles, 1905, ***Cerdocyon thous***, Rio de Janeiro, State of Rio de Janeiro, ***Leopardus pardalis*** Linnaeus, 1758, Belém, State of Pará, ***Puma concolor***, municipality of Estrela, State of Rio de Janeiro, *Toxocara mystax* (Zeder, 1800) Stiles, 1907, ***Herpailurus yaguarondi***, municipality of Salobra, State of Mato Grosso do Sul, ***Felis pardalis***, municipality of Piratuba, State of Pará, municipality of Porto Cabral, State of São Paulo, ***Panthera onca*** (Linnaeus, 1778), locality unavailable, ***Puma concolor***, municipality of Barreiro Rico, State of São Paulo, ***Felis pardalis***, State of Mato Grosso, *Travassostrongylus callis* (Travassos, 1914) Orloff, 1933, ***D. aurita***, municipaliyties of Rio de Janeiro and Petrópolis, State of Rio de Janeiro, municipality of Soóretama, State of Espírito Santo, *Trichuris* sp., ***Dasyprocta agouti***, municipality of Angra dos Reis, State of Rio de Janeiro, neighborhood of Ribeira, Rio de Janeiro, and Rio Estrela (?) [Estrela River (?)], State of Rio de Janeiro, municipality of Salobra, State of Mato Grosso do Sul, ***Mus musculus*** (Linnaeus, 1758), municipality of Lorena, State of São Paulo, ***Philander opossum*** (Temminck, 1824), municipality of Angra dos Reis, State of Rio de Janeiro, ***Pseudalopex gymnocercus*** (Fischer, 1814), municipality of Salobra, State of Mato Grosso do Sul, *Trichuris minuta* (Rudolphi,1819), ***Chironectes*** sp., municipality of Salesópolis, State of São Paulo, ***Dasypus novemcinctus*** Linnaeus, 1758, Belém, State of Pará, ***D. aurita***, municipalities of Rio de Janeiro and Petrópolis, State of Rio de Janeiro, ***D. marsupialis***, municipality of Angra dos Reis, State of Rio de Janeiro, Belém, State of Pará, Salvador, State of Bahia, municipality of Linhares, State of Espírito Santo, ***Marmosa murina***, Belém, State of Pará. *Trichuris serratus* (Linstow, 1879), Gedoelst,1911), ***Felis silvestris*** Schreb, 1775, São Paulo, State of São Paulo, *Turgida turgida* (Rudolphi, 1819) Travassos, 1919, ***Chironectes minimus***, Rio de Janeiro, State of Rio de Janeiro, municipality of Santo Antônio, State of Pará, *Viannaia* sp., ***Metachirops nudicaudatus***, municipality of Angra dos Reis, State of Rio de Janeiro, *Viannaia hamata* Travassos, 1914, ***Philander opossum***, Rio de Janeiro, State of Rio de Janeiro (Modified and adapted from Noronha *et al*., 2002).

Reference: Noronha *et al*. (2002).

Stilestrongylus aculeata (Travassos, 1918) Durette-Desset, 1971, ***Akodon cursor*** (Winger, 1887), small intestine, district of Suruí, municipality of Magé, State of Rio de Janeiro.

Reference: Gomes *et al*. (2003).

Ancylostoma buckleyi Le Roux & Bioca, 1957, ***Cerdocyon thous*** (Linnaeus, 1766), municipality of Itatinga, State of São Paulo.

Referência: Santos *et al*. (2003).

Capillaria sp., ***Sturnira*** (***S***.) ***magna*** De La Torre, 1966, stomach, Parque Nacional da Serra do Divisor (Divisor Mountain National Park), State of Amazonas.

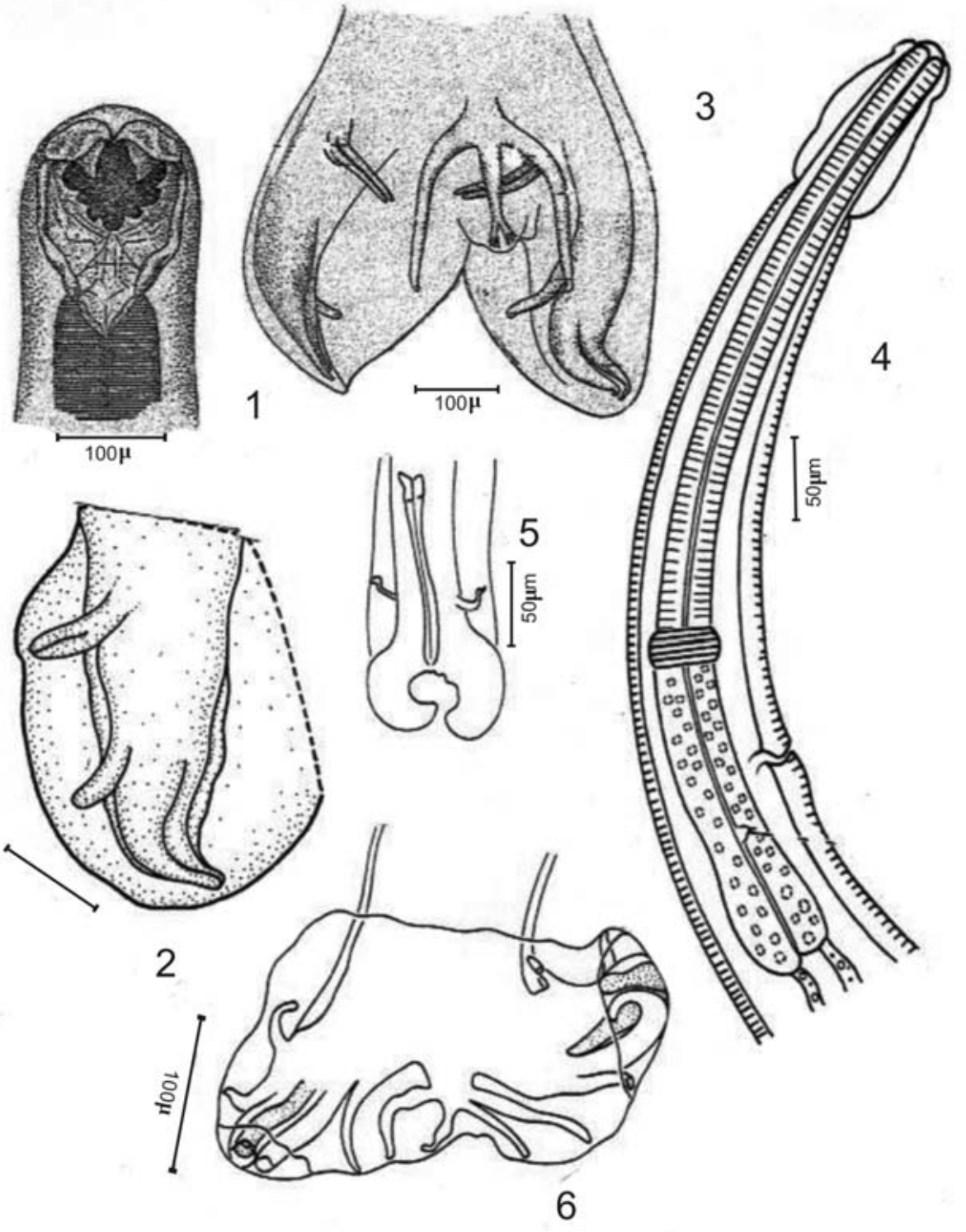
Reference: Nogueira *et al*. (2004)

Helminthoxys urichi (Cameron & Reesal, 1951) Hugot, 1986, ***Dasyprocta fuliginosa*** Wagler, 1832, municipality of Barcelos, State of Amazonas.

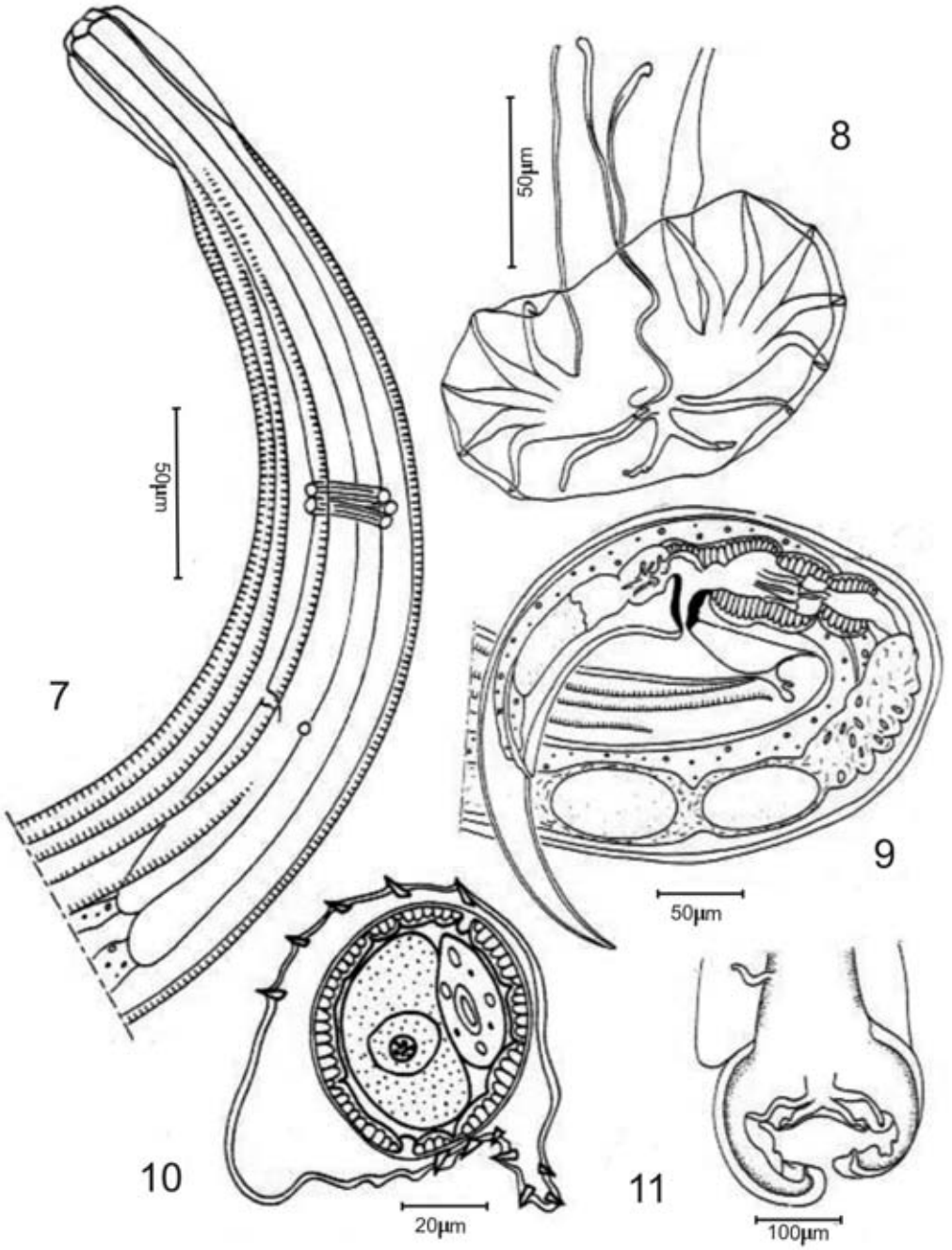
Reference: Gonçalves *et al*. (2006).

Cosmocercoidea, Kathlaniidae, ***Alouatta guariba clamitans*** Cabrera, 1940, municipality of Campinas, State of São Paulo.

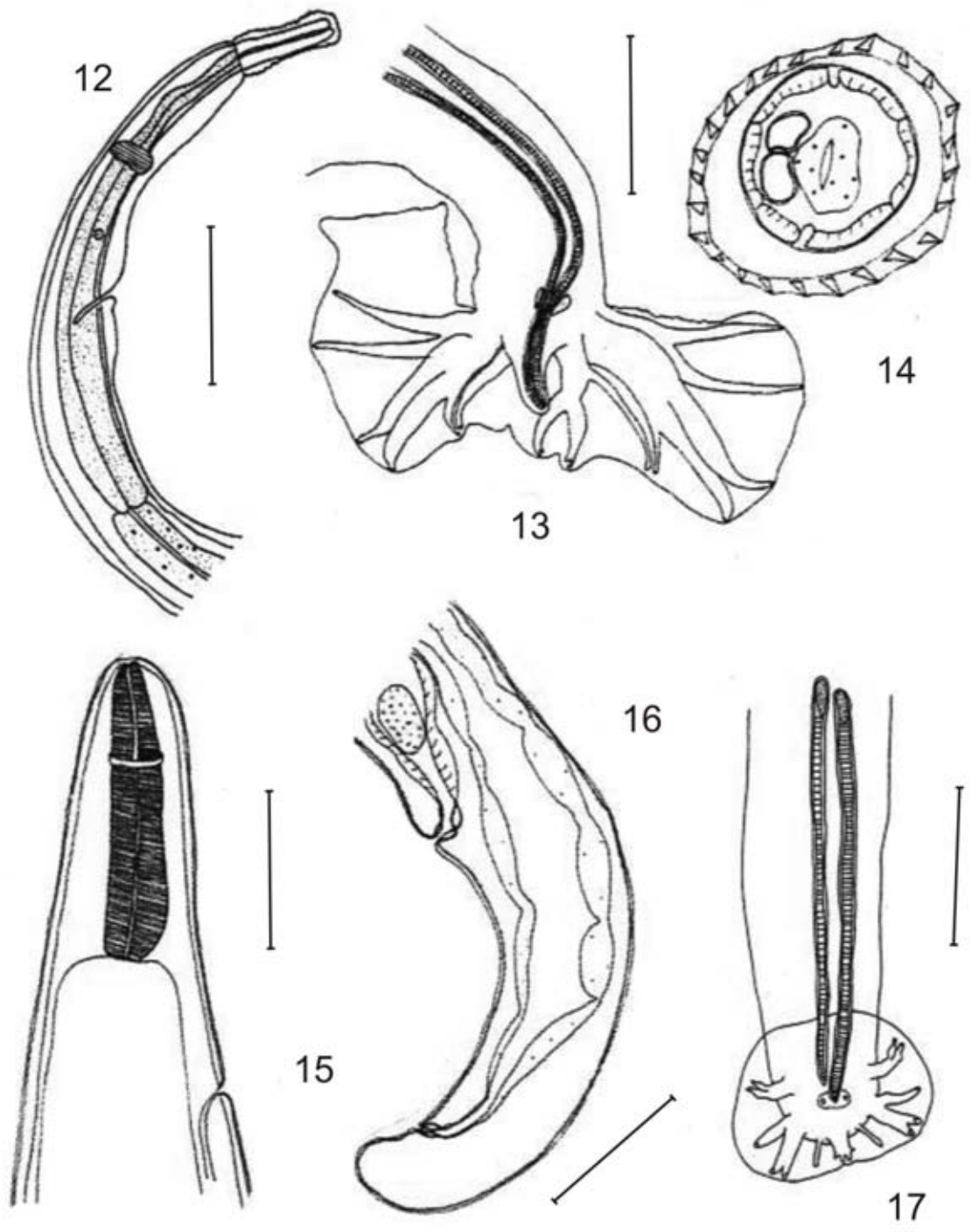
Reference: Santos *et al*. (2006).



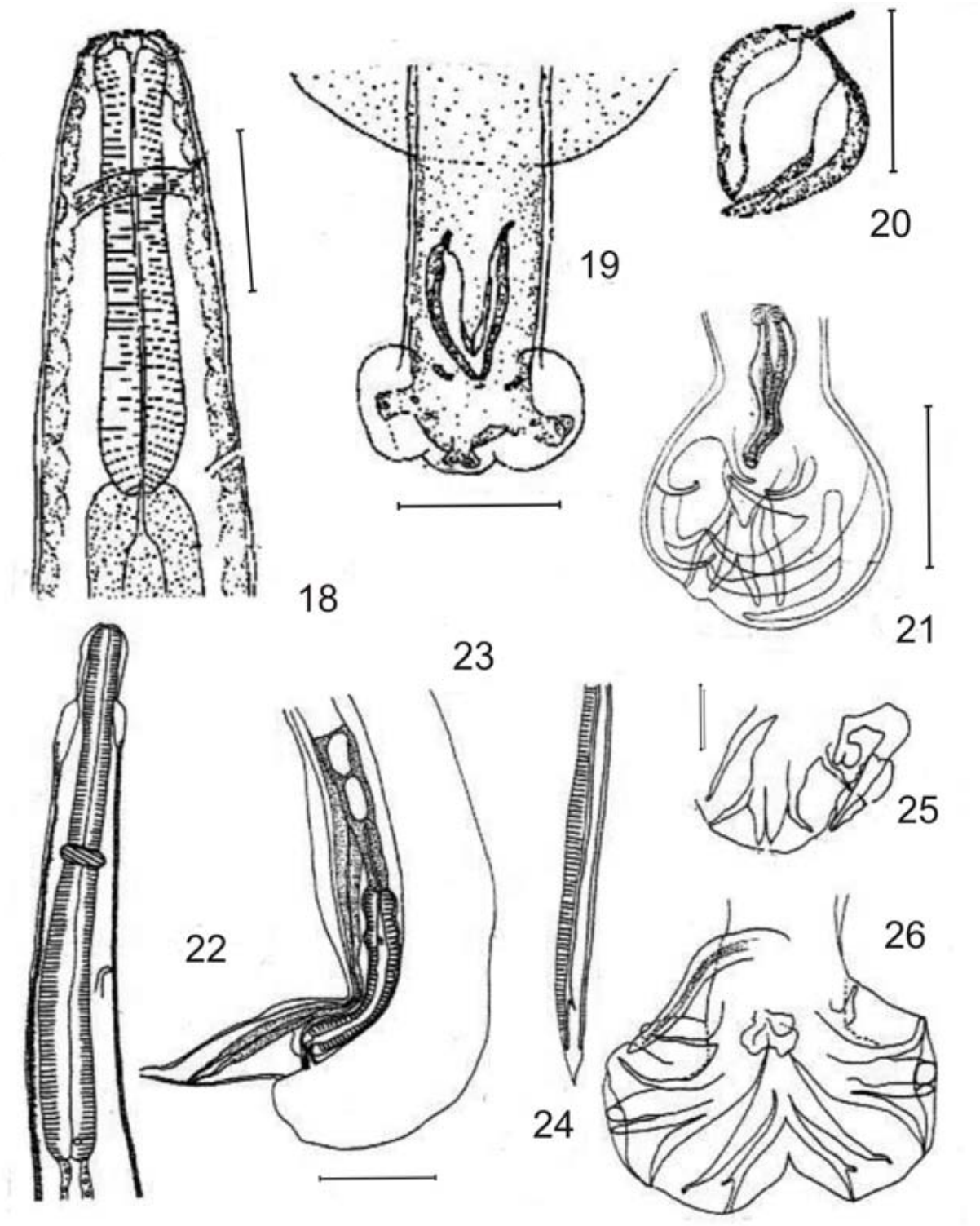
Figures 1-6. *Ancylostoma pluridentatum*. Fig. 1. Male, anterior portion. (After Schwartz, 1927). Fig. 2. Male, right side of the bursa. Scale bar = 0.10. (After Thatcher, 1971). Fig. 3. Male, caudal bursa. (After Schwartz, 1927). *Avellaria intermedia*. Fig. 4. Anterior of male. Fig. 5. Posterior of male. Fig. 6. Male, caudal bursa. (After Durette-Desset *et al*., 2006).



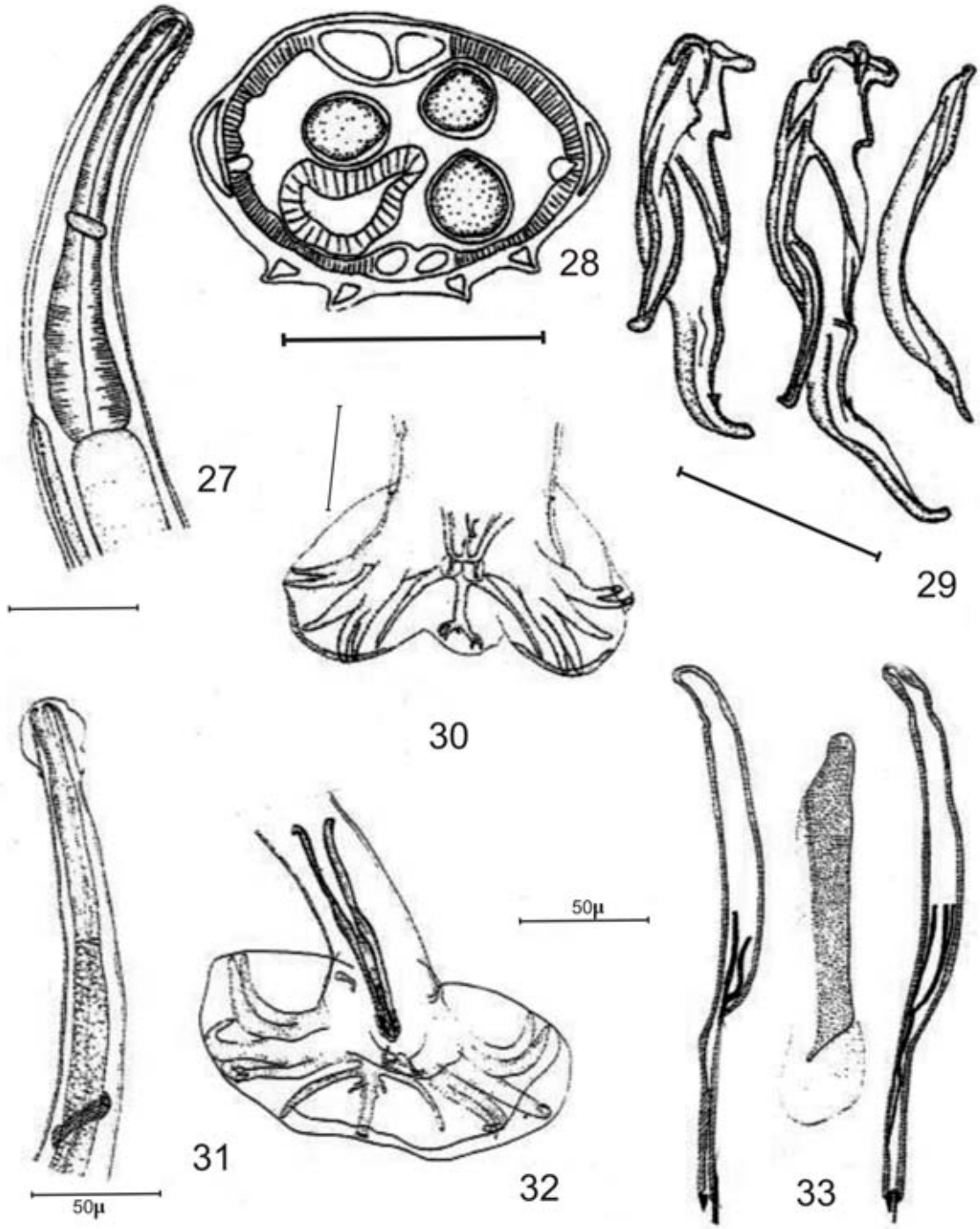
Figures 7-11. *Viannella trichospicula*. Fig. 7. Female, anterior portion. Fig. 8. Male, posterior extremity, with caudal bursa. Fig. 9. Female, posterior portion, showing anal and vulvar apertures, ovejector and uterus. Fig. 10. Female, cross section at mid-body, showing cuticular ridges. Fig. 11. Male, posterior extremity. (After Durette-Desset *et al*., 2006).



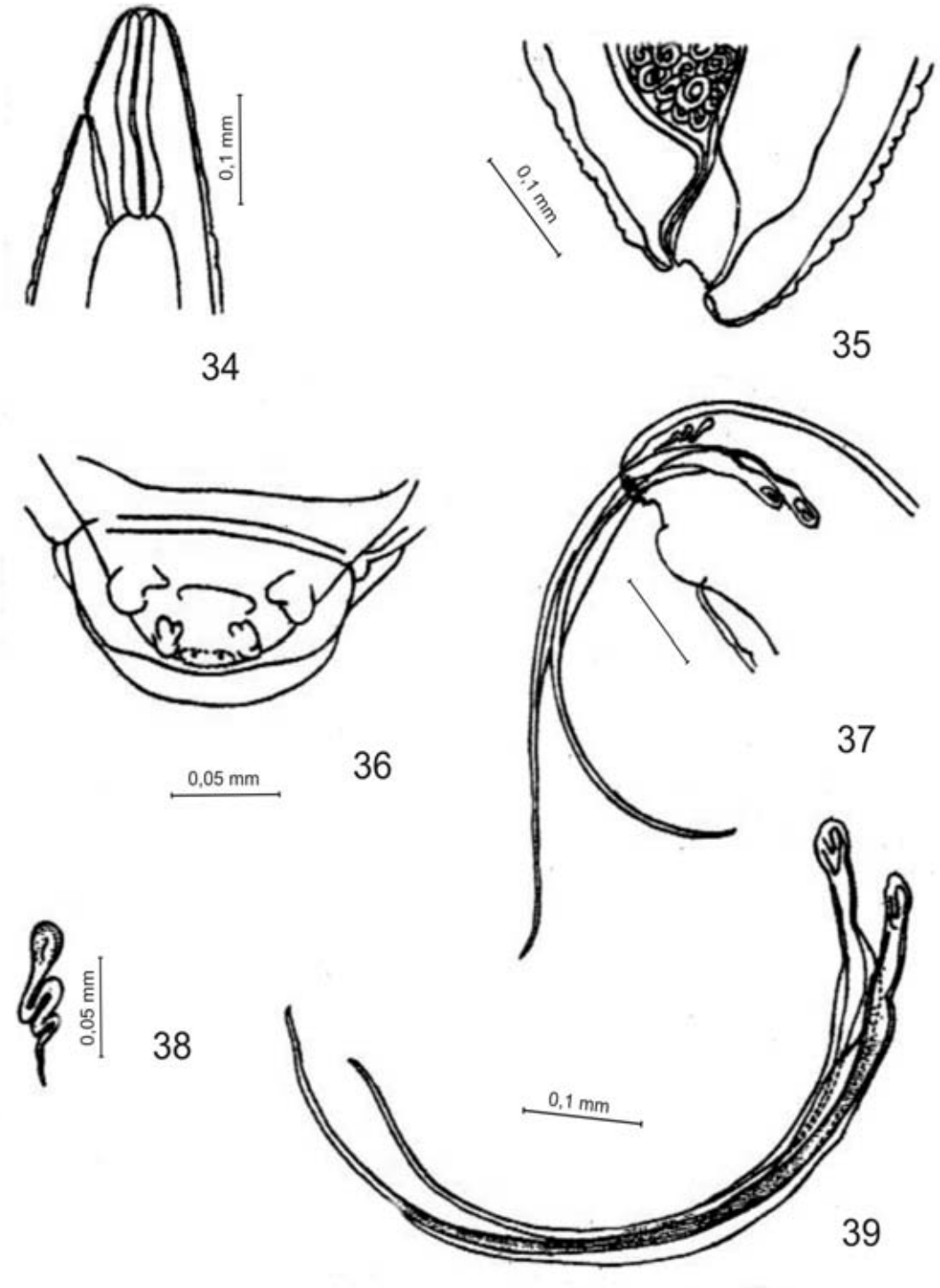
Figures 12-17. *Stilestrongylus lanfrediae*. Fig. 12. Male, anterior extremity. Scale bar = 0.05 mm. Fig. 13. Male, posterior of body. Scale bar = 0.1 mm. Fig. 14. Female, cross-section through anterior body, at posterior esophagus-intestinal junction. Scale bar = 0.02 mm. Scale bar common to figs 13-14. (After Souza *et al*., 2009a). *Angiostrongylus lenzii*. Fig. 15. Male, anterior extremity (Scale bar = 0.05 mm). Fig. 16. Female, posterior extremity (Scale bar = 0.1 mm). Fig. 17. Male, posterior extremity. (Scale bar = 0.1 mm) (After Souza *et al*., 2009b).



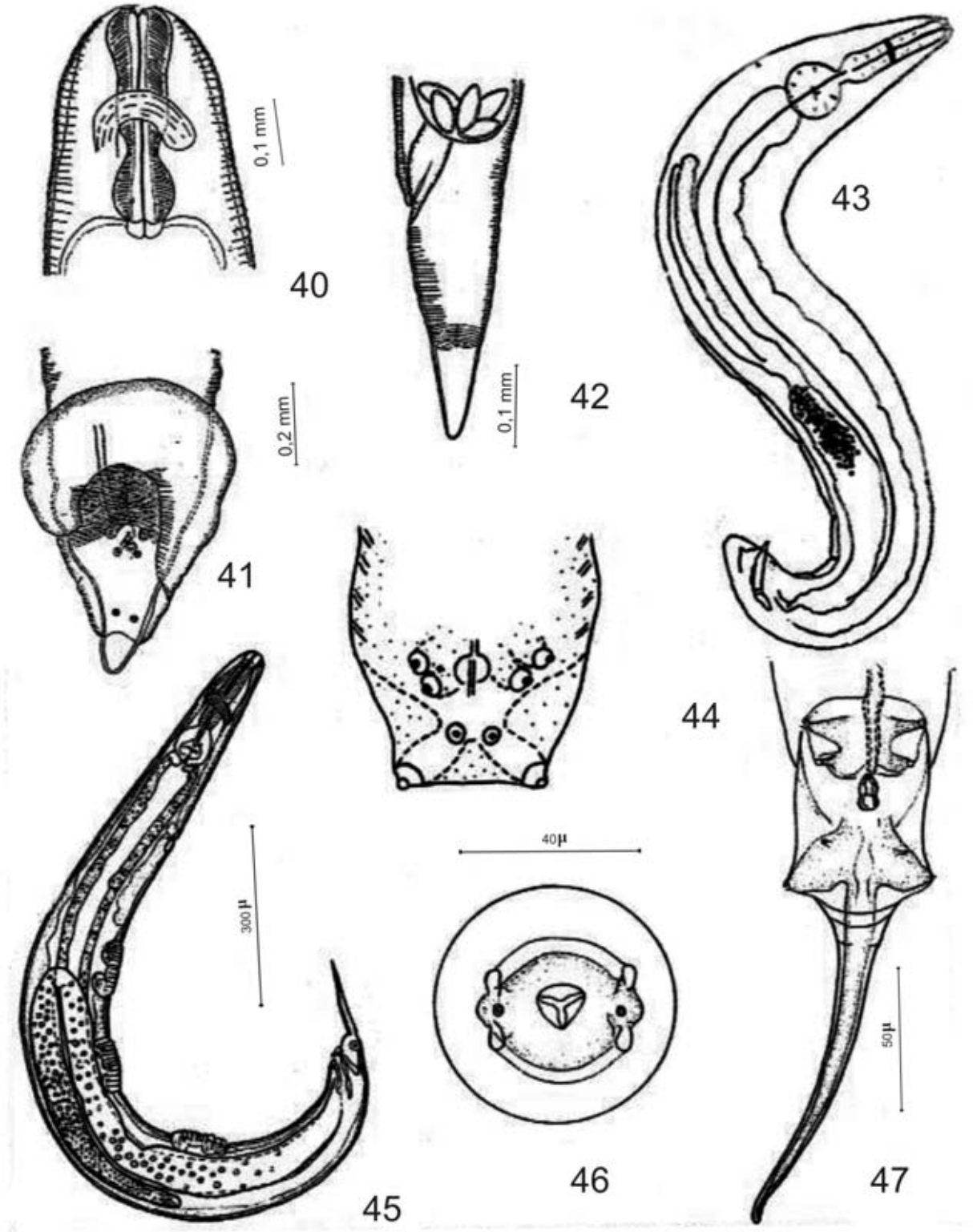
Figures 18-26. *Stenurus globicephalae*. Fig. 18. Anterior of female (Scale bar = 0.25 mm). Fig. 19. Posterior of male Scale bar = 0.1 mm). Fig 20. Excised spicules. (Scale bar = 0.05 mm) (After Zylber *et al*. (2002). *Longistriata myopotami*. Fig. 21. Male caudal bursa (Scale bar = 0.1 mm) (After Ryzhikov *et al*., 1979). *Freitastrongylus angelae*. Fig, 22. Female, anterior portion. Fig. 23. Female, posterior portion. Fig. 24. Spicule. Fig. 25. Male caudal bursa. (Scale bar = 0.1 mm). Fig. 26. Male, caudal bursa showing the genital cone. (Scale bar common to Figs 22, 23, 24, 26 = 0.1 mm). (After Gonçalves *et al*., 2002).



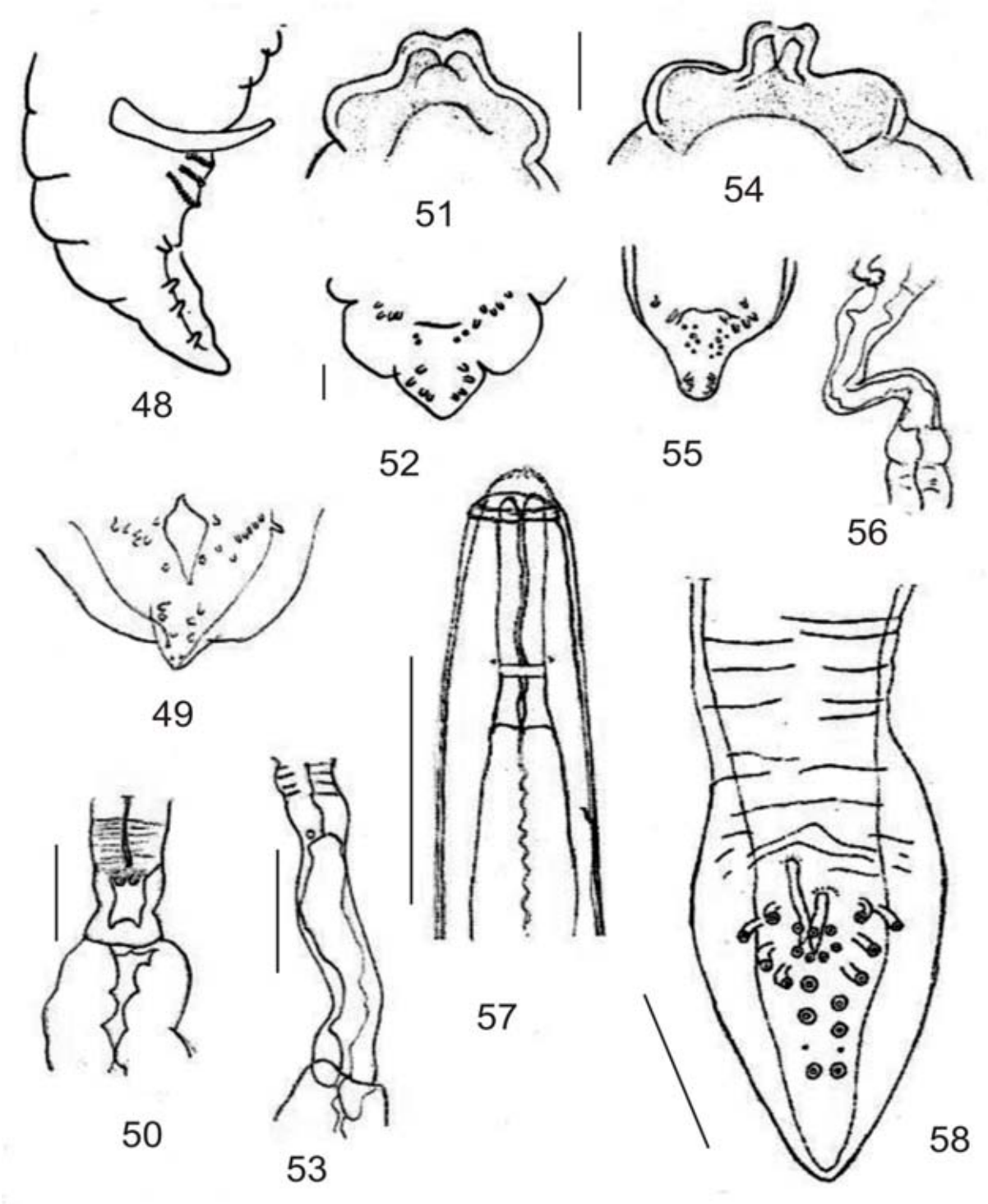
Figures 27-33. *Hadrostrongylus speciosum*. Fig. 27. Male, anterior portion. Fig. 28. Synlophe, midbody transversal section. Fig. 29. Spicules and gubernaculum. Fig. 30. Male caudal bursa. (Scale bars = 0.1 mm) (After Hoppe & Nascimento, 2007). *Moennigia littlei.* Fig. 31. Male, anterior portion. Fig. 32. Male, caudal bursa. Fig 33. Spicules and gubernaculum. (Scale bar common to Figs 32-33). (After Durette-Desset, 1970).



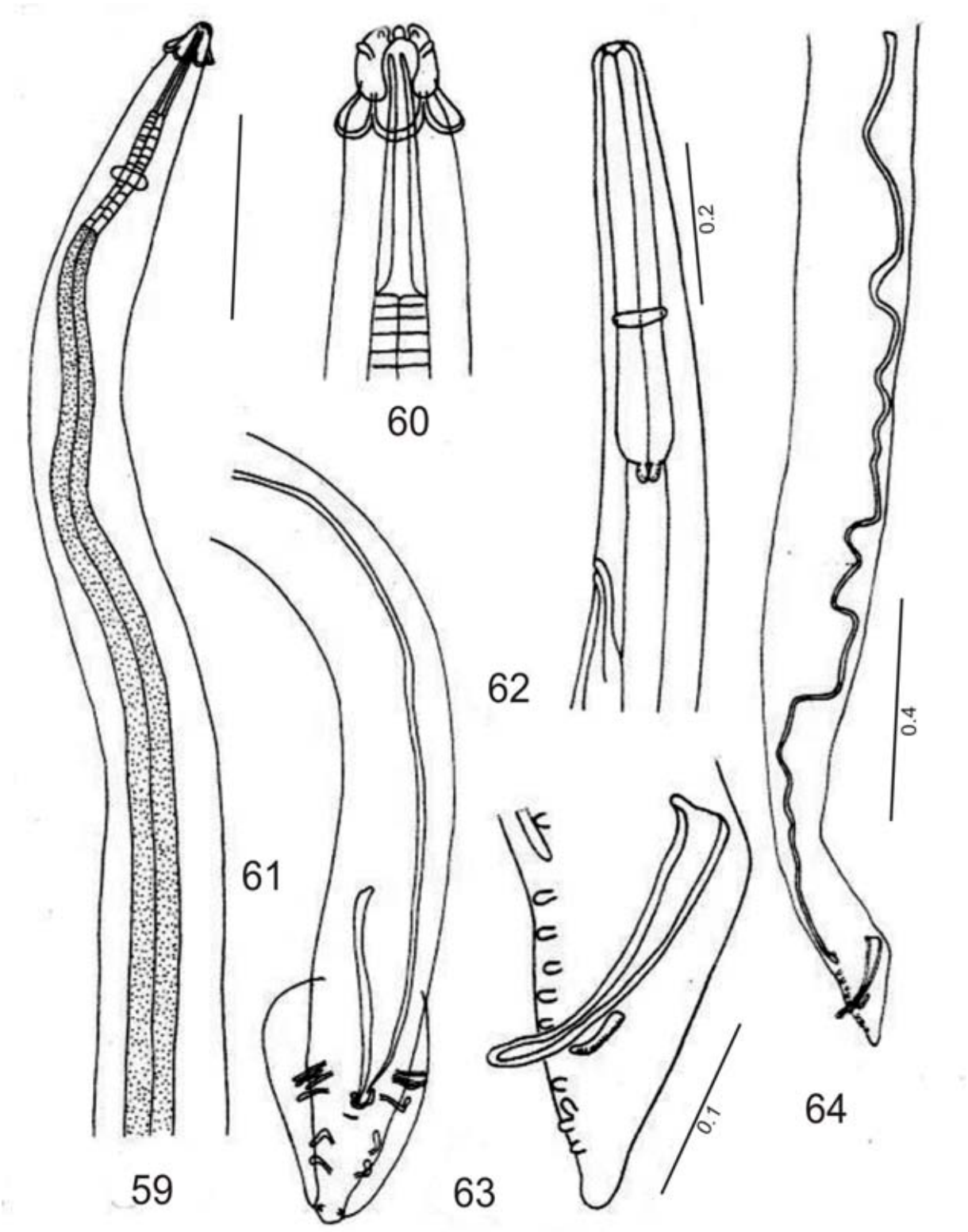
Figures 34-39. *Halocercus* (*Posthalocercus*) *kleinenbergi*. Fig. 34. Cephalic end of body. Fig. 35. Female, caudal end. Fig. 36. Male, caudal bursa. Fig. 37. Male, posterior extremity. Fig. 38. Male, gubernaculum. Fig. 39. Spicules (After Delyamure, 1951).



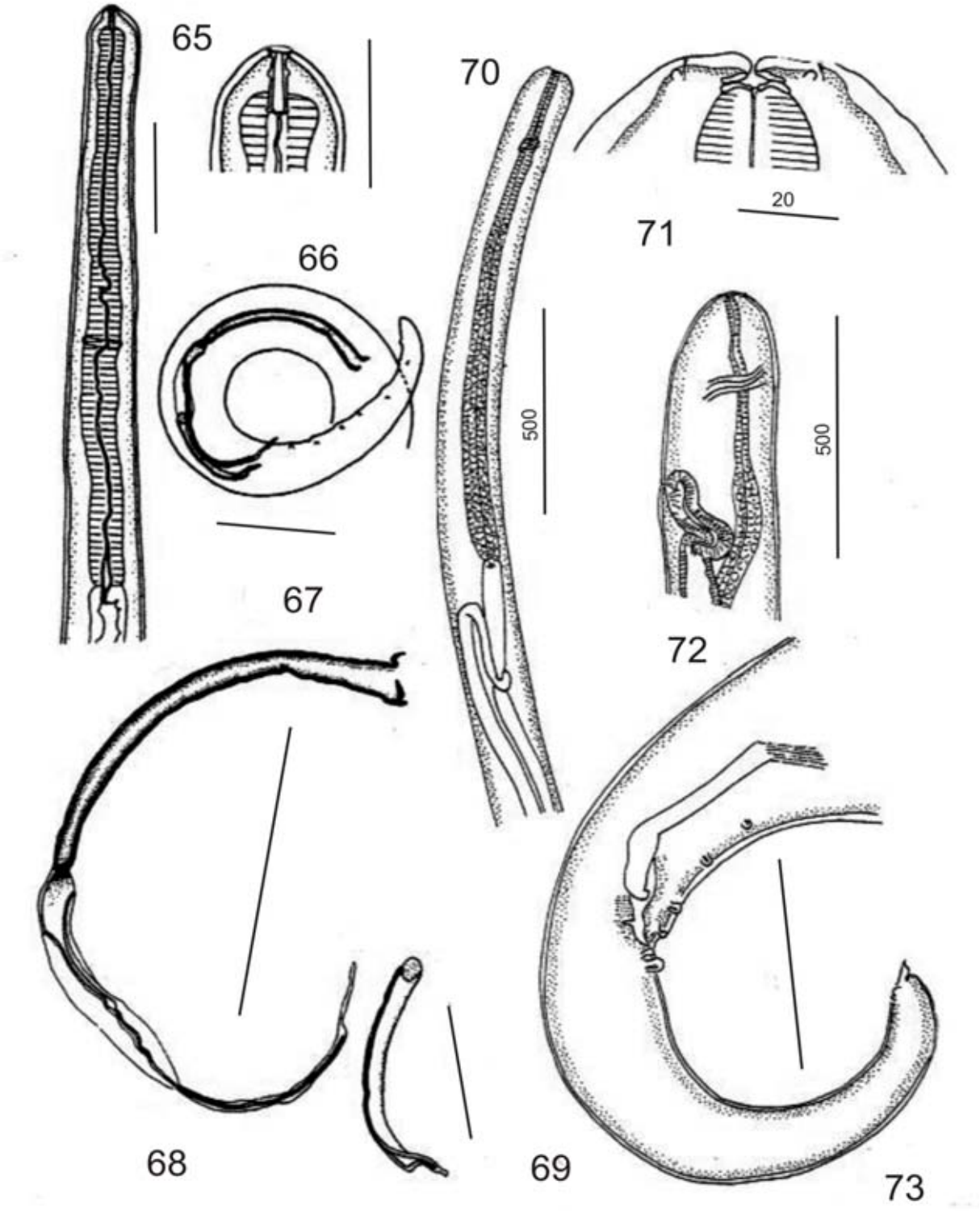
Figures 40-47. *Dentostomella translucida*. Fig. 40. Anterior of male. Fig. 41. Posterior of male. Fig. 42. Posterior of female. (After Pilitt & Wightman, 1979). *Gracilioxyuris agilisis*. Fig. 43. Male, total. Fig. 44. Posterior of male. (Scale bars = 0.10 mm). (After Feijó *et al*. 2008). *Syphacia mesocriceti*. Fig. 45. Male, total. Fig. 46. Head, apical view. Fig. 47. Male, posterior portion, ventral view. (After Dick *et al*., 1973).



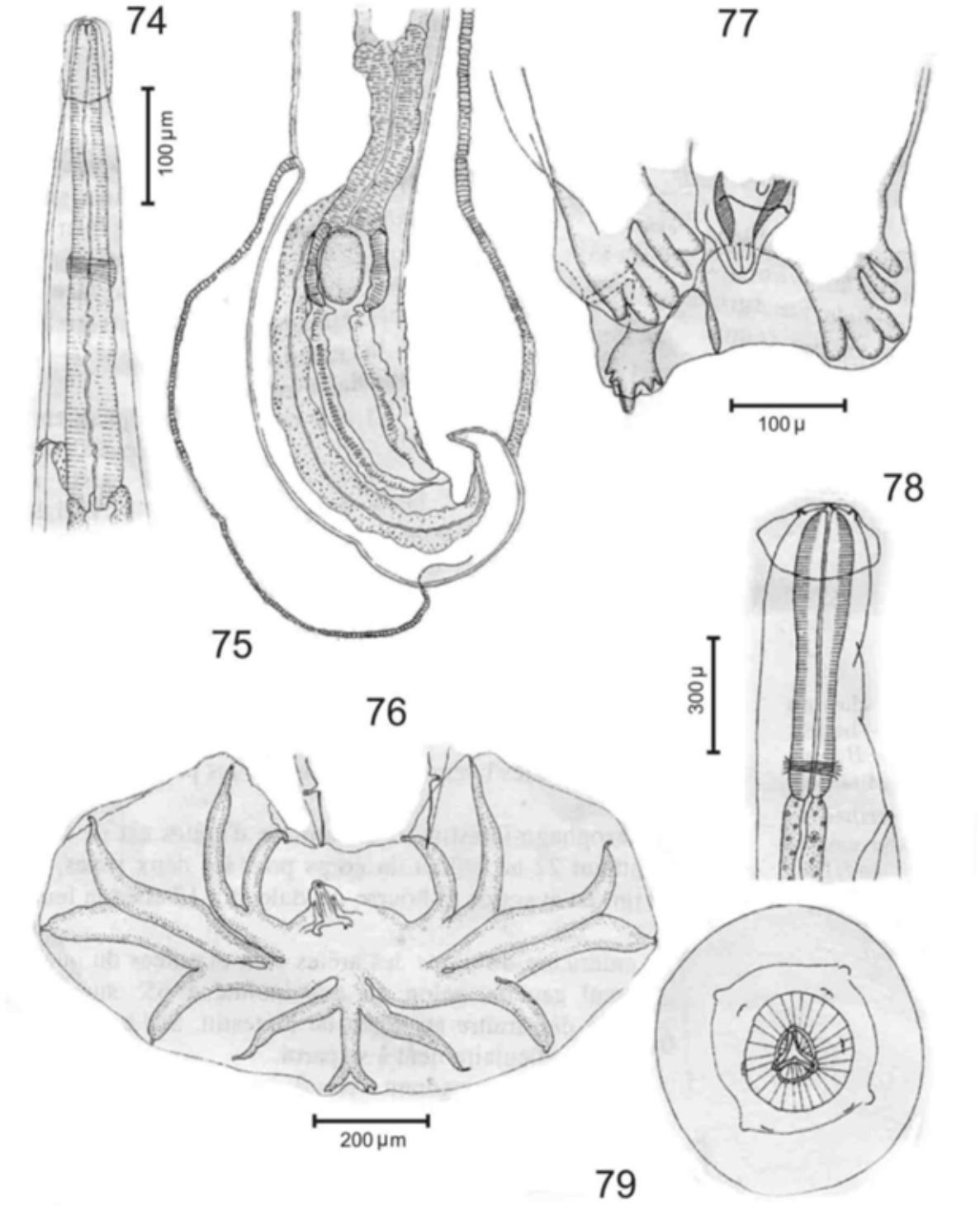
Figures 48-58. *Anisakis physeteris*. Fig. 48. Posterior of male, lateral view. Fig. 49. Posterior extremity of male, ventral view. Fig. 50. Esophagus-intestine junction. (Scale bar of Fig. 50 = 0.1 mm, common to figs 48-49). (After Davey, 1971). *Anisakis simplex*. Fig. 51. Anterior extremity, showing lips. Fig. 52. Posterior of male, ventral view. Fig. 53. Esophagus-intestine junction. (Scale bars = 0.10 mm) (After Davey, 1971). *Anisakis typica*. Fig. 54. Anterior extremity, showing lips. Fig. 55. Posterior of male, ventral view. Fig. 56. Esophagus-intestine junction. (Scale bar of Fig 51, common to Figs 54, 55, 56 = 0.10 mm. (After Davey, 1971). *Physaloptera herthameyrae*. Fig. 57. Anterior of male. Fig. 58. Posterior of male. (Scale bars = 0.50 mm). (After Torres *et al*., 2009).



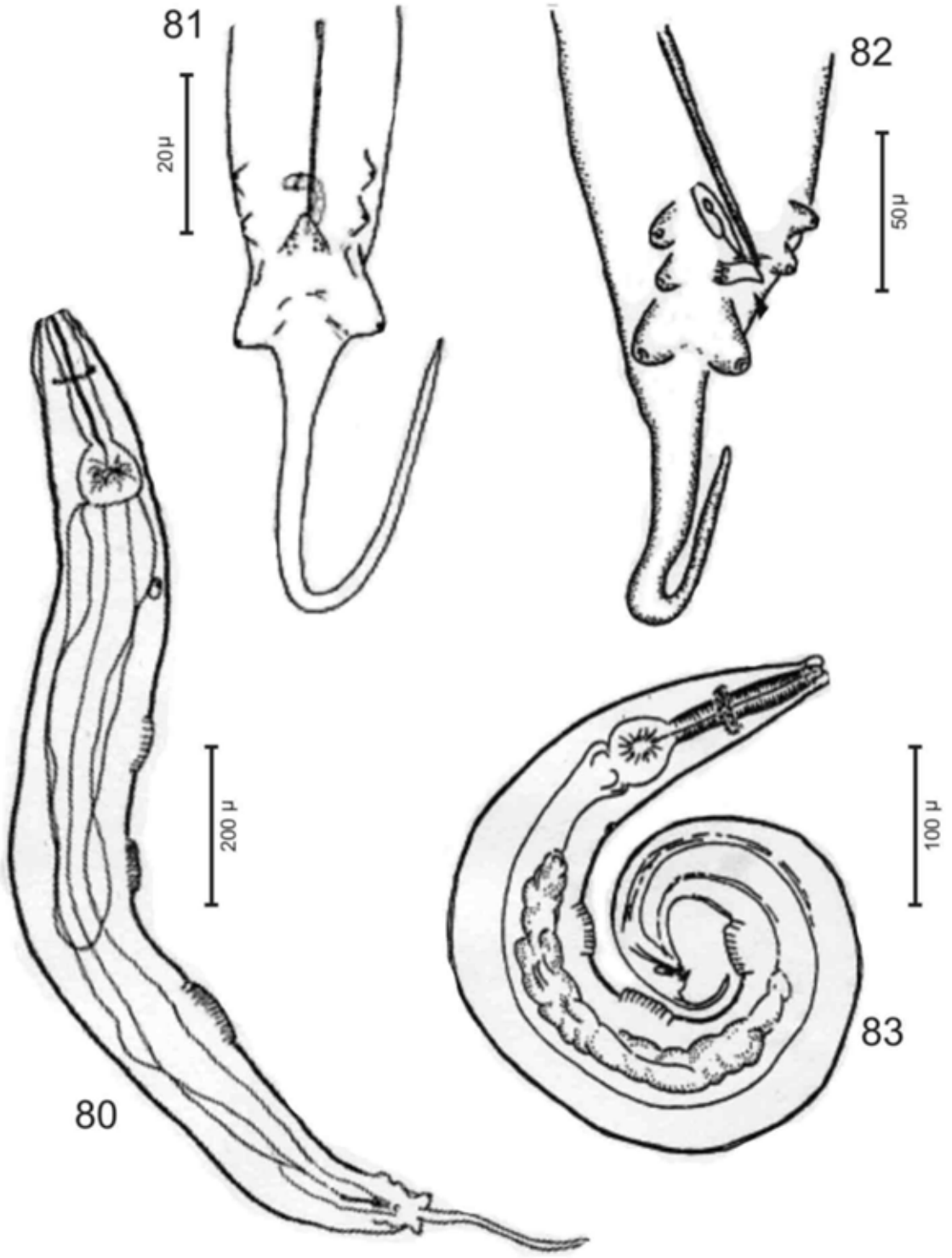
Figures 59-64. *Parabronema pecariae*. Fig. 59. Male, anterior portion (Scale bar, common to Figs 60, 61 = 0.2 mm). Fig. 60. Male, anterior extremity. Fig. 61. Male, posterior portion. (After Vicente *et al*., 2000). *Thelazia californiensis*. Fig. 62. Male, anterior portion. Fig. 63. Male, posterior extremity. Fig. 64. Male, posterior portion. (After Pinto *et al*., 1998).



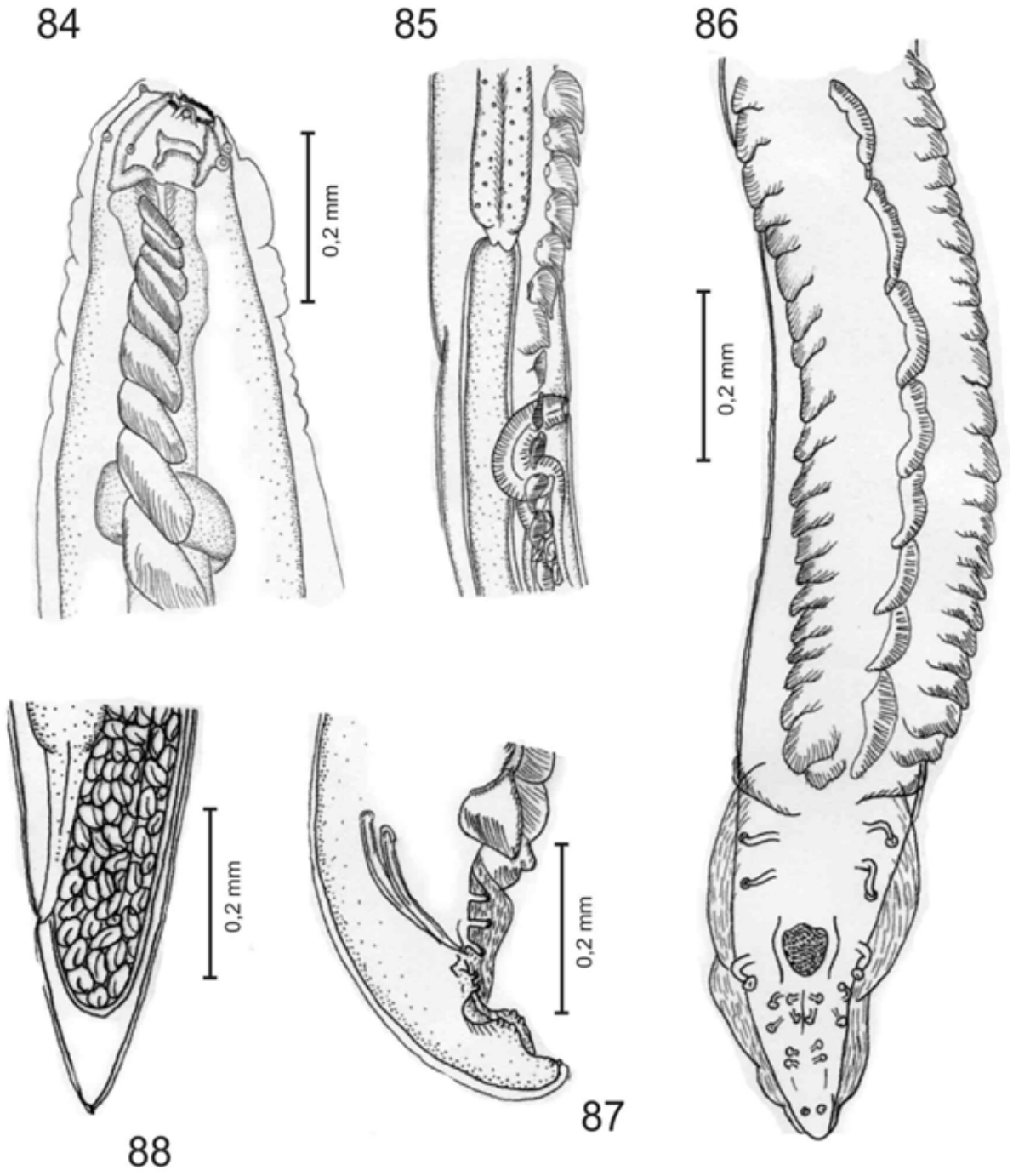
Figures 65-73. *Litomosoides chagasfilhoi*. Fig. 65. Male, anterior portion. (Scale bar = 0.10 mm). Fig. 66. Male, anterior extremity, showing buccal capsule. (Scale bar = 0.05 mm. Fig. 67. Male, posterior portion. (Scale bar = 0.10 mm). Fig. 68. Male, left spicule (Scale bar = 0.10 mm). Fig. 69. Right spicule. (Scale bar = 0.05 mm) (After Moraes Neto *et al*., 1997). *Molinema nattereri*. Fig. 70. Male, anterior portion. Fig. 71. Male, anterior extremity. Fig. 72. Female, anterior portion. Fig. 73. Male, posterior portion. (After Guerrero & Bain, 2001).



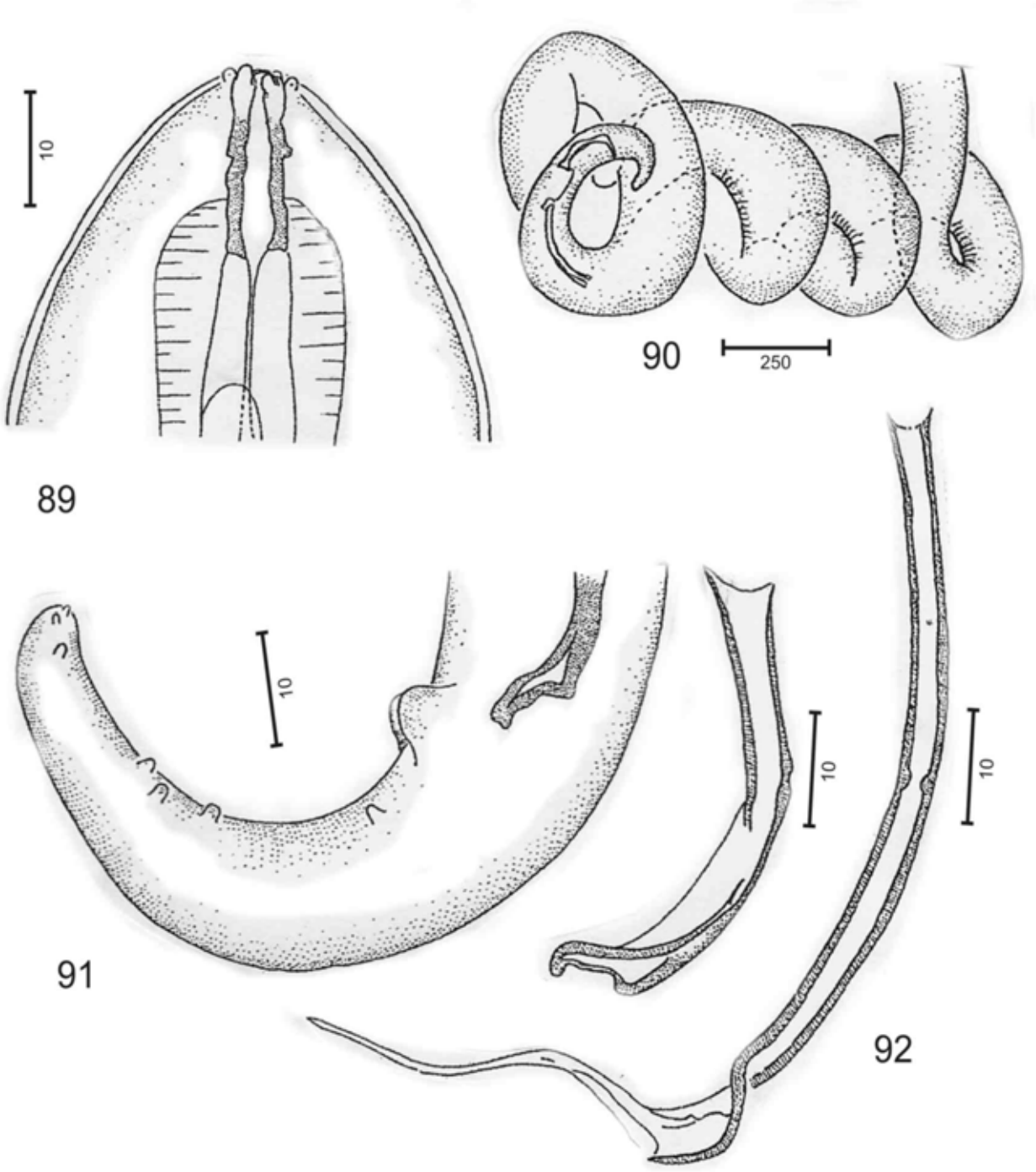
Figures 74-79. *Trichosfeitasi lenti*. Fig.74. Female, anterior portion. Fig. 75. Femela, posterior portion. Fig. 76. Male, bursa (After Sutton & Durett-Desset, 1991). *Chiroptenema glabocephala*. Fig. 77. Male, bursa. Fig.78. Anterior portion. 79. Head apical view (After Durette-Desset & Tchéprakoff, 1977).



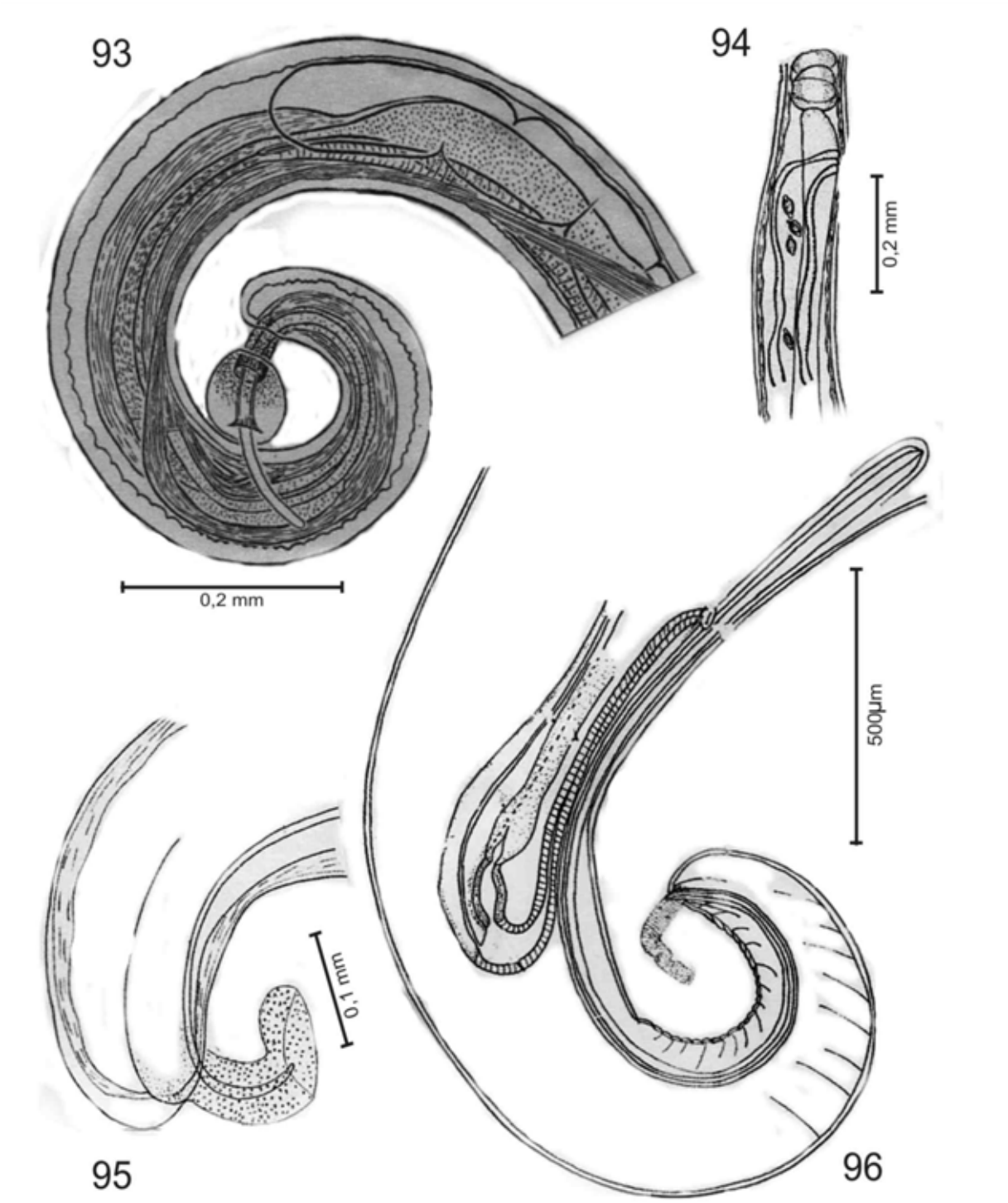
Figures 80-83. *Syphacia carlotosi*. Fig. 80. Complete male specimen. Fig. 81. Posterior extremity male ventral view. (After Robles & Navone, 2007a). Fig. 82-83. *Syphacia kinsellai*. Fig.82. Complete male specimen. Fig. 83. Posterior extremity male ventral view. (After Robles & Navone, 2007b).



Figures 84-88. *Pterygodermatites (Multipectines) pluripectinata*. Fig. 84. Anterior portion lateral view. Fig. 85. Midbody region lateral view. Fig. 86. Male caudal portion, ventral view. Fig. 87. Male caudal portion lateral view. Fig 88. Female tail tip, lateral view. (After Hoppe *et al*., 2010).



Figures 89-92. *Litomosoides odilae*. Fig. 89. Male bucal capsula. Fig. 90. Male posterior region. Fig. 91. Male posterior region papillae. Fig. 92. Male spicules. (After Notarnicola & Navone, 2002).



Figures 93-96. Fig. 93. *Trichuris opaca*. Caudal end of male (After Tiner, 1950). Fig. 94. *Trichuris didelphis*. Vulvar area female. Fig. 95. *Trichuris didelphis*. Caudal end of male. (After Babero, 1960). Fig. 96. *Trichuris trichomysi*. Caudal end of male. (After Torres *et al.*, 2011).

Angiostrongylus vasorum (Railliet, 1866), ***Cerdocyon thous*** Linnaeus, 1766, municipality of Juiz de Fora, State of Minas Gerais.
Reference: Duarte *et al*. (2007).

Pterygodermatites (Paucipectines) jägerskiöldi (Lent & Freitas, 1935) Quentin, 1969, ***Gracilinanus agilis*** Burmeister, 1854, ***Gracilinanus microtarsus*** Wagner, 1842, Pantanal (Wetlands), State of Mato Grosso, Floresta Atlântica (Atlantic Forest).
Reference: Torres *et al*. (2007).

Aspidodera binansata Raiiliet & Henry, 1915, *Moennigia littlei* Durette-Desset, 1970
Strongyloides ratti Sandground, 1925, ***Dasypus novemcinctus*** Linnaeus, 1758, municipality of Aquidauana, State of Mato Grosso do Sul.
Reference: Hoppe & Nascimento (2007).

Ancylostoma caninum (Ercolani, 1859) Hall, 1913, ***Pseudalopex gymnocercus*** (Fischer, 1814), *Capillaria hepatica* (Bancroft, 1893) Travassos, 1915, *Molineus felinus* Cameron, 1923, *Strongyloides* sp., *Trichuris* sp., ***Cerdocyon thous*** (Linnaeus, 1766), ***Pseudalopex gymnocercus***, municipalities of Pedro Osório and Pelotas, State of Rio Grande do Sul.
Reference: Ruas *et al*. (2008).

Ancylostoma caninum (Ercolani, 1859), Hall, 1913, *Hadrostrongylus ransomi* (Travassos, 1935) Hoppe, Araújo de Lima, Tebaldi, Athayde & Nascimento, 2009 (= *Delicata ransomi* Travassos, 1935), ***Euphractus sexcinctus*** (Linnaeus, 1758), small intestine, municipality of Patos, State of Paraíba.
Reference: Hoppe *et al*. (2009).

Dioctophyma renale (Goeze, 1782) Collet-Meygret, 1802, ***Galictis cuja*** (Molina, 1782), *Capillaria hepatica* (Bancroft, 1893) Travassos, 1915, *Spirometra* sp., ***Cerdocyon thous*** (Linnaeus, 1766), ***Lycalopex gymnocercus*** (Fischer, 1814) [=***Pseudalopex gymnocercus*** (Fisher, 1814)], municipality of Pelotas, State of Rio Grande do Sul.
Reference: Muller *et al*. (2009).

Aelustrongylus sp., ***Cerdocyon thous*** (Linnaeus, 1766), heart, State of Mato Grosso do Sul, *Ancylostoma braziliense* Faria, 1910, ***Puma (Herpailurus) yaguarondi*** (Geoffroy, 1803), intestine, State of Mato Grosso, *Ancylostoma caninum* (Ercolani, 1859), ***Panthera onca*** (Linnaeus, 1758), site of infection unavailable, State of Mato Grosso, ***Lycalopex*** sp., small intestine, State of Rio de Janeiro, ***Puma (Herpailurus) yaguarondi***, intestine, State of Mato Grosso, *Angiostrongylus* sp., ***Eira barbara*** (Linnaeus, 1758), heart, State of Mato Grosso do Sul, *Angiostrongylus raillieti* (Travassos, 1927), ***Nasua nasua*** (Linnaeus, 1776), mesentery, State of Paraná, *Capillaria* sp., ***Puma concolor*** (Linnaeus, 1771), bronchi, State of Rio de Janeiro, *Dioctophyma* sp., ***Crysocyon brachyurus*** (Illiger, 1815), abdominal cavity, State of São Paulo, ***Galictis vittata*** (Schreber, 1776), kidney, State of Rio de Janeiro, ***N. nasua***, abdominal cavity, State of Pará, ***Lontra longicaudis*** (Olfers, 1818), kidney, State of Rio de Janeiro, ***Speothos venaticus*** (Lund, 1842), kidney, State of Mato Grosso, *Dirofilaria* sp., ***Galictis cuja*** (Molina, 1782), heart, State of Rio de Janeiro, ***N. nasua***, pulmonary artery, heart, State of Mato Grosso do Sul, ***Procyon cancrivorus*** (Cuvier, 1798), under the skin, State of Rio de Janeiro, ***Pteronoura brasiliensis*** (Gmelin, 1788), under the skin, State of Mato Grosso do Sul, *Dirofilaria incrassata* (Molin, 1858), ***P. cancrivorus***, under the skin, State of Rio de Janeiro, *Dirofilaria repens*, ***Cerdocyon thous***, under the skin, State of Mato Grosso do Sul, *Filaria carvalhoi* Freitas & Lent, 1937, ***E. barbara***, under the skin, State of Mato Grosso do Sul, *Mammomonogamus* sp, ***P. concolor***, bronchi, State of Rio de Janeiro, *Molineus* sp., ***Potos flavus*** (Schreber, 1774), intestine, State of Pará, *Molineus major* Cameron, 1936, ***P. brasiliensis***, lungs, State of Mato Grosso do Sul, *Necator americanus* (Stiles, 1902), ***P. flavus***, intestine, State of Pará,

Pearsonema feliscati (Diesing, 1851), *Pearsonema linsi* (Freitas & Lent, 1935), ***C. thous***, urinary bladder, State of Rio de Janeiro, *Physaloptera* sp., ***C. thous***, stomach, State of Mato Grosso do Sul, *Physaloptera preputialis* Linstow, 1889, ***C. thous***, stomach, State of Paraná, *Strongyloides* sp., ***C. thous***, ***G. vittata***, small intestine, State of Rio de Janeiro, *Subulura amazonica* Pereira & Machado Filho, 1968, ***P. brasiliensis***, small intestine, State of Amazonas, *Subulura interrogans*, Lent & Freitas, 1935, ***P. brasiliensis***, large intestine, State of Amazonas, *Trichuris* sp., ***Leopardus tigrinus*** (Schreber, 1775), site of infection and locality unavailable, *Trichuris vulpis* (Froelich, 1789), ***C. thous***, cecum, State of Mato Grosso do Sul. (Modified and adapted from Vieira *et al*., 2008).
References: Muniz-Pereira *et al*. (2009) and Vieira *et al*. (2008).

Pterygodermatites (Paucipectines) jägerskiöldi (Lent & Freitas, 1935) Quentin, 1969, *Spirura guianensis* (Ortlepp, 1924) Chitwood, 1934, ***G. agilis***, *Turgida turgida* (Rudolphi, 1819) Travassos, 1919, ***Didelphis virginiana*** Kerr, 1792, Pantanal (Wetlands), State of Mato Grosso (Modified and adapted from Torres *et al*., 2009).
Reference: Torres *et al*. (2009).

Dioctophyma renale (Goeze, 1782) Collet-Meygret, 1802, ***C. thous***, Rio de Janeiro, State of Rio de Janeiro.
Reference: Ribeiro *et al*. (2009).

Strongyloides sp., ***Leopardus tigrinus*** Schreber, 1775, municipality of Botucatu, State of São Paulo.
Reference: Santos *et al*. (2009).

Capillaria hydrochoeri (Travassos, 1916) Moravec, 1982, *Strongyloides* sp., *Trichuris* sp. ***Hydrochoerus hydrochaeris*** (Linnaeus, 1766), intestine, municipality of Rio Grande, State of Rio Grande do Sul.
Reference: Sinkoc *et al*. (2009).

Heligmostrongylus almeidai (Travassos, 1927) Durette-Desset & Chabaud, 1981, *Heligmostrongylus crucifer* (Travassos, 1943) Durette-Desset & Chabaud, 1981, *Pudica cercomysi* (Durette-Desset & Tchéprakoff, 1969) Durette-Deset, 1971, ***Thrichomys pachyurus*** (Wagner, 1845), intestine, Brazilian Pantanal (Wetlands) (Modified and adapted from Simões *et al*. 2010).
Reference: Simões *et al*. (2010).

Trypanoxyuris minutus (Schneider, 1866), ***Alouatta guariba clamitans*** Cabrera, 1940, municipality of Juiz de Fora, State of Minas Gerais.
Reference: Souza *et al*. (2010).

Avellaria sp., *Trichuris* sp., ***A. cursor***, ***A. montensis***, ***O. nigripes***, intestine, Serra dos Órgãos (Órgãos Mountain), Rio de Janeiro, State of Rio de Janeiro, *Litomosoides silvai* Padilha & Faria, 1977, *Stilestrongylus aculeata* (Travassos, 1918) Durette-Desset, 1971 (= *Longistriata aculeata* Travassos, 1918), *Stilestrongylus eta* (Travassos, 1937) Durette-Desset, 1971 (=*Longistriata eta* Travassos, 1937), ***A. montensis***, ***O. nigripes***, intestine, Serra dos Órgãos, Rio de Janeiro, RJ, *Protospirura numidica* Seurat, 1914*, ***A. cursor***, ***A. montensis***, ***O. nigripes***, intestine, Serra dos Órgãos (Órgãos mountain) Rio de Janeiro, State of Rio de Janeiro (Modified and adapted from Simões *et al*., 2011).
* It seems more likely that this species was misunderstood with *Protospirura numidica criceticola* Quentin, Karimi & Almeida, 1968, that was referred occurring in *Zygodontomys lasiurus pixuna* Moojen, 1943 and *Calomys callosus* (Renger, 1830) in Brazil (Vicente *et al*., 1997).
References: Quentin *et al*. (1968), Vicente *et al*. (1997) and Simões *et al*. (2011).

Ascaris sp, *Strongyloides* sp., *Trichuris trichiura* (Linnaeus, 1769), *Trichuris vulpis* (Froelich, 1789) Smith, 1908, ***C. brachiurus***, intestine, Parque Nacional das Emas (Emas National Park) State of Goiás.
Reference: Braga *et al*. (2010).

Dioctophyma renale (Goeze, 1782) Collet-Meygret, 1802, ***Cebus apella*** Linnaeus, 1766, abdominal cavity, Centro Nacional de Primatas (National Primate Center), municipality of Ananindeua, State of Pará.
Reference: Ishizaki *et al*. (2010).

Turgida turgida (Rudolphi, 1819) Travassos, 1919, ***Didelphis albiventris*** (Lund, 1840), intestine, municipality of Campo Grande, State of Mato Grosso do Sul.
Reference: Humberg *et al*. (2011).

Summarized check list of mammalian hosts and respective parasite nematodes (alphabetical order). Nematode and host species that are followed by an astherisc (*) have not been reported by Vicente *et al.* (1997). In this section, authorities of species are omitted, since they appear along the text.

Agouti paca, *Heligmostrongylus agouti*, *Physocephalus meridionalis*, *Strongyloide*s sp., *Strongylus* sp., ***A. cursor***, *Avellaria* sp. *Guerrerostrongylus zeta* (= *Hassalstrongylus zeta*), *Hassalstrongylus* sp., *Litomosoides chagasfilhoi* (*), *L. odilae* (*), *Protospirura numidica*, *Stilestrongylus lanfrediae* (*), *Strongylus aculeata*, *Syphacia carlitosi* (*), *Syphacia kinsellai* (*), *Syphacia* sp., *Trichofreitasia lenti* (*), *Trichuris* sp., ***A. montensis*** **(*)**, *Angiostrongylus lenzii* (*), *Avellaria* sp., *Guerrerostrongylus zeta*, *Litomosoides odilae*, *L. silvai*, *Protospirura numidica*, *Stilestrongylus aculeata*, *S. lanfrediae*, *Stilestrongylus* sp., *Syphacia carlitosi*, *S. kinsellai*, *Trichofreitasia lentii*, *Trichuris* sp., ***A. belzebul ululata*** **(*)**, *Ascaris elongata* (*) [*species inquirenda*], ***A. caraya***, *Dipetalonema* sp., ***A. guariba clamitans*** **(*)**, Cosmocercoidea, Kathlaniidae, *Trypanoxyurus* (*T.*) *minutus*, ***A. caudifer*** **(*)**, *Litomosoides brasiliensis*, ***A. planirostris*** **(*)**, *Cheiropteronema globicephala* (*), ***B. borealis*** **(*)**, *Crassicauda crassicauda*, *Pseudoterranova* sp. (*), ***B. physalus*** **(*)**, *Crassicauda* sp., *Pseudoterranova* sp., ***Brachyteles arachnoides***, *Dipetalonema caudispina*, ***Blastocerus dichotomus***, *Cooperia pectinata*, *C. punctata*, *Haemonchus similis*, *Trichostrongylus axei*, *T. colubriformis*, ***C. hircus***, *Gongylonema pulchrum*, ***C. calvus***, *Monodontus* sp., ***C. apella***, *Dipetalonema gracilis*, *Filariopsis barretoi*, ***C. thous***, *Aelustrongylus s*p., *Ancylostoma buckleyi*, *Angiostrongylus vasorum*, *Capillaria hepatica*, *Dioctophyma renale*, *Dirofilaria repens*, *Dirofilaria* sp., *Pearsonema feliscati*, *Physaloptera preputialis*, *Physaloptera* sp., *Pterygodermatites* (*Paucipectines*) *pectinata* (*), *Spirometra* sp., *Strongyloides* sp., *Toxocara canis*, *Trichuris vulpis*, *Trichuris* sp., ***C. subspinosus*** **(*)**, *Trichuris opaca* (*), ***C. minimus***, *Cruzia tentaculata*, *Dipetalonema* sp., *Litomosoides* sp., *Turgida turgida*, ***Chironectes*** sp., *Aspidodera raillieti*, *Trichuris minuta*, ***C. satanas*** **(*)**, *Physalopetera dilatata*, ***C. didactylus***, *Physaloptera papillotruncata*, ***C. chinga***, *Molineus* sp., ***C. brachyurus***, *Ascaris* sp., *Dioctophyma* sp., *Strongyloides* sp., *Trichuris trichiura*, *T. vulpis*, ***D. agouti***, *Thelazia iheringi*, *Trichuris* sp., ***D. azarae***, *Eucyathostomum copulatum*, *Helminthoxys urichi*, ***D. fuliginosa***, *Avellaria intermedia* (*), *Freitastrongylus angelae* (*), *Helminthoxys urichi*, *Vianella trichospicula* (*), ***D. leporina***, *Freitastrongylus angelae*, ***Dasyprocta*** sp., *Dipetalonema* sp., ***D. novemcinctus***, *Aspidodera binansata*, *Hadrostrongylus speciosum* (*), *Moennigia littlei* (*), *Strongyloides ratti*, *Trichuris minuta*, ***D. albiventris*** **(*)**, *Aspidodera raillieti*, *Capillaria* sp., *Cruzia tentaculata*, *Gongylonema* sp., *Travassostrongylus orloff*, *Trichuris didelphis* (*), *Turgida turgida*, *Viannaia hamata*, ***D. aurita***, *Capillaria* sp., *Metastrongylus* sp., *Physaloptera* sp., *Subulura* sp., *Travassostrongylus callis*, *Trichuris minuta*, ***D. marsupialis***, *Aspidodera* sp, *Dipetalonema* sp. *Eucoleus fluminensis*, *Heterostrongylus* sp., *Mammomonoganus laryngeus*, *Trichuris minuta*, ***D. virginiana*** **(*)**, *Turgida turgida*, ***Didelphis*** sp. *Aspidodera raillieti*, *Cruzia tentaculata*, ***Echimys*** (?) ***didelphoides*** **(*)**, *Molinema nattereri* (*), ***E. barbara***, *Angiostrongylus* sp., *Dirofilaria repens*, *D. spectans*, *Filaria carvalhoi*, *Toxascaris leonina*, ***E. sexcinctus***, *Ancylostoma caninum, Bayrdascaris dasypodina*, *Hadrostrongylus ransomi*, ***F. pardalis***, *Toxocara mystax*, *Toxocara* sp., ***F. silvestris***, *Trichuris serratus*, ***F. attenuata*** **(*)**, *Anisakis simplex* (*), ***Galea wellsi*** **(*)**, *Hassalstrongylus* sp., ***G. cuja*** **(*)**, *Dioctophyma renale*, *Dirofilaria* sp., *Strongyloides* sp., ***G. macrorhynchus*** **(*)**, *Anisakis typica* (*), *Stenurus globicephalae* (*), ***G. agilis*** **(*)**, *Gracilioxyuris agilisis* (*), *Physaloptera herthameyrae* (*), *Pterygodermatites (Paucipctines) jägerskioldi*, *Spirura guianensis*, ***G. microtarsus*** **(*)**, *Pterygodermatites (Paucipctines) jägerskioldi*, ***G. chryseus*** **(*)**, *Anisakis* sp. (*), ***H. yaguarondi***, *Aelurostrongylus obtusus*, *Ancylostoma braziliensis*, *Toxocara mystax*, ***H. physodes melanogaster*** **(*)**, *Protospirura muris*, ***H. hydrochaeris***, *Capillaria hydrochoeri*, *Strongyloides* sp., *Trichuris* sp., ***K. breviceps*** **(*)**, *Anisakis physeteris* (*), *A. typica*, *Anisakis* sp.,

Crassicauda sp., *Pseudoterranova*, ***K. sima*** **(*)**, *Anisakis* sp., ***L. hosei*** **(*)**, *Anisakis* sp., ***L. pardalis***, *Ancylostoma braziliense*, *Toxocara canis*, *Strongyloides* sp., ***L. tigrinus*** **(*)**, *Strongyloides* sp. ***L. wiedii***, *Ancylostoma pluridentatum* (*), *Physaloptera digitata*, *Physaloptera* sp., ***L. rosalia***, *Crassicauda* sp., *Physaloptera digitata*, ***L. longicaudis***, *Dioctophyma* sp., *Dirofilaria spectans*, *Dirofilaria* sp., *Dracunculus* sp., *Dirofilaria spectans*, ***Lycalopex gymnocercus*** **(*)**, *Capillaria hepatica*, *Spirometra* sp., ***L.*** sp. **(*)**, *Ancylostoma caninum*, ***M. americana***, *Cooperia pectinata*, *C. punctata*, *Haemonchus contortus*, *H. similis*, *Trichostrongylus axei*, *T. colubriformis*, ***M. gouazoubira*** **(*)**, *Cooperia pectinata*, *C. punctata*, *Haemonchus contortus*, *H. similis*, *Trichostrongylus axei*, *T. colubriformis*, *Thelazia californiensis* (*), ***M. murina***, *Aspidodera* sp., *Litomosoides petteri*, *Trichuris minuta*, ***M. unguiculatus*** **(*)**, *Dentostomella translucida* (*), ***M. auratus*** **(*)**, *Syphacia* (*S.*) *criceti*, *S. mesocriceti* (*), ***Metachirops*** sp. **(*)**, *Cruzia tentaculata*, ***M. nudicaudatus*** **(*)**, *Dracunculus* sp. *Viannaia* sp., ***M. coypus***, *Longistriata myopotami* (*), ***M. musculus***, *Trichuris* sp., ***N. nasua***, *Angiostrongylus raillieti*, *Dioctophyma* sp., *Dirofilaria repens*, *Dirofilaria* sp., ***O. nigripes*** **(*)**, *Avellaria* sp., *Guerrerostrongylus zeta*, *Litomosoides odilae*, *Litomosoides silvai*, *Protospirura numidica*, *Stilestrongylus aculeata*, *S. lanfrediae*, *Syphacia carlitosi*, *S. kinsellai*, *Trichofreitasia lenti*, *Trichuris* sp., ***O. bezoarticus***, *Cooperia pectinata*, *C. punctata*, *Haemonchus contortus*, *H. similis*, *Trichostrongylus axei*, *T. colubriformis*, ***P. tajacu***, *Parabronema pecari* (*), ***P. electra*** **(*)**, *Anisakis typica*, *Anisaki*s sp., *Stenurus globicephala*, ***P. onca***, *Ancylostoma caninum*, *Toxocara mystax*, ***P. opossum***, *Aspidodera subulata*, *Dipetalonema* sp., *Physaloptera* sp., *Trichuris* sp., *Viannaia hamata*, ***P. dioptrica*** **(*)**, *Anisakis simplex*, ***P. catodon*** **(*)**, *Anisakis physeteris*, ***P. macrocephalus*** **(*)**, *Anisakis* sp., ***P. blainvillei*** **(*)**, *Anisakis typica*, ***P. flavus***, *Molineus* sp., *Necator americanus*, ***P. cancrivorus***, *Dirofilaria incrassata*, *Dirofilaria* sp., ***P. cayanensis***, *Heterakis* sp., ***P. gymnocercus*** **(*)**, *Ancylostoma caninum*, *Strongyloides* sp., *Trichuris* sp., ***P. crassidens*** **(*)**, *Anisakis simplex*, ***P. brasiliensis***, *Dirofilaria* sp., *Molineus major*, *Subulura interrogans*, ***P. concolor***, *Ancylostoma braziliense*, *A. pluridentatum*, *Capillaria* sp., *Mammomonogamus* sp., *Toxocara canis*, *T. mystax*, *Toxascaris leonina*, ***P.*** (***Herpaylurus***) ***yagouaroundi*** **(*)**, *Ancylostoma braziliense*, *A. caninum*, ***S. bicolor***, *Crassicauda* sp., *Dipetalonema graciliformis*, ***S. mystax***, *Dipetalonema graciliformis*, ***S. aestruans***, *Heligmostrongylus* sp., ***S. fluviatilis*** **(*)**, *Anisakis typica*, *Halocercus brasiliensis*, ***S. guianensis*** **(*)**, *Anisakis physeteris*, *A. typica*, *Anisakis* sp., *Contracaecum* sp. (*), *Halocercus* (*Posthalocercus*) *kleinenbergi* (*), *Halocercus* sp., ***S. venaticus*** **(*)**, *Dioctophyma* sp., ***S. clymene*** **(*)**, *Anisakis typica*, *Anisakis* sp., *Halocercus brasiliensis*, *Halocercus brasiliensis*, *Halocercus* sp., ***S. coeruleoalba*** **(*)**, *Anisakis typica*, *Anisakis* sp., ***S. frontalis*** **(*)**, *Anisakis* sp., *Halocercus* sp., ***S. longirostris*** **(*)**, *Anisakis typica*, *Anisakis* sp., *Halocercus brasiliensis*, ***Stenella*** sp. **(*)**, *Halocercus* sp., ***S. bredanensis*** **(*)**, *Anisakis typica*, *Anisakis* sp., ***S.*** (***S.***) ***magna*** **(*)**, *Capillaria* sp., ***T. brasiliensis***, *Rictularia* sp., ***T. tetradactyla***, *Graphidiops assimilis*, *Trichomys pachyurus*, *Heligmostrongylus almeidai*, *H. crucifer*, *Pudica cercomysi*, ***T. pecari***, *Parabronema pecari*, ***T. tricinctus***, *Aspidodera raillieti*, *A. vazi*, ***T. apereoides*** **(*)**, *Trichris thrichomysi* (*), ***T. pachyurus*** **(*)**, *Heligmostrongylus almeidai*, *H. crucifer*, *Pudica cercomysi*, ***T. truncatus*** **(*)**, *Anisakis* sp.

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