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Research Note

Systematic position of the enigmatic *Quentinia mesovitellinica* (Rêgo, 1967) (Cestoda, Cyclophyllidea)

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Summary

The systematic position of *Quentinia mesovitellinica* (Rêgo, 1967) (Cestoda, Cyclophyllidea) from the hystricomorph rodent *Galea spixii* (Wagler) (Caviidae) in Brazil is reevaluated based on published information. *Quentinia mesovitellinica* is generally thought to belong to the family Catenotaeniidae, being thus the only catenotaeniid cestode parasitizing hystricomorph rodents and also the only catenotaeniid in South America. However, the present study shows that *Q. mesovitellinica* differs fundamentally from *Catenotaenia* Janicki, 1904 sensu lato and other catenotaeniids with respect to several morphologic features, but shares these features with *Monoecocestus* Beddard, 1914 sensu Beveridge (1994), a genus in the family Anoplocephalidae sensu stricto (i.e. sensu Spasskii, 1951). However, *Q. mesovitellinica* is not assigned here to *Monoecocestus*, because the latter is a morphologically heterogeneous genus and will probably be split when subjected to a comprehensive phylogenetic and taxonomic analysis. Instead, *Quentinia* Spasskii, 1969 is considered a valid genus in the family Anoplocephalidae s. s. The morphologically closely related *Monoecocestus eljefe* Haverkost & Gardner, 2010 from *Galea musteloides* Meyen in Bolivia is assigned to *Quentinia* as *Q. eljefe* (Haverkost & Gardner, 2010) n. comb. An amended diagnosis is provided for *Quentinia*.
Keywords: *Quentinia mesovitellinica*; *Monoecocestus*; Catenotaeniidae; Anoplocephalidae; Cestoda; Caviidae

Introduction

Catenotaenia mesovitellinica Rêgo, 1967 (Cestoda, Cyclophyllidea) was described from the hystricomorph rodent *Galea spixii* (Wagler) (Caviidae) in Brazil. In the same year, Quentin (1967) described *Atriotaeonia (Ershovia) baltazardi* Quentin, 1967 (Linstowiidae) from the same host species (*G. spixii*) and the same country (Brazil). Spasskii (1969) established a new genus, *Quentinia* Spasskii, 1969, for *A. baltazardi* and assigned it to the family Anoplocephalidae. Later, Tenora *et al.* (1980) proposed the genus *Quentinotaenia* Tenora, Mas-Coma, Murai & Felii, 1980 for *C.*

mesovitellinica within the family Catenotaeniidae.

It was later suggested by Quentin (1994) that *Quentinia baltazardi* (Quentin, 1967) and *Quentinotaenia mesovitellinica* (Rêgo, 1967) are in fact the same species and that “*mesovitellinica*” is the valid specific epithet because of an earlier publication date. It followed that *Quentinotaenia* fell into synonymy with *Quentinia*, and the valid combination is therefore *Quentinia mesovitellinica* (Rêgo, 1967). Quentin’s (1967) action of assigning the new species to *Atriotaeonia* Sandground, 1926 is clearly erroneous, because *Q. mesovitellinica* has a persistent sac-like uterus, rather than an ephemeral uterus with eggs embedded in the parenchyma, the

latter type characterizing the family Linstowiidae (see Beveridge, 1994).

Although it was recognized that *Q. mesovitellinica* has some unusual morphologic features, it has usually been assigned to the family Catenotaeniidae, either within the genus *Catenotaenia* Janicki, 1904 (see Quentin, 1971, Tenora and Murai, 1975, Tenora, 1977, Genov and Tenora, 1979) or as an independent genus within the Catenotaeniidae (Schmidt, 1986, Georgiev *et al.*, 2006) or within the (non-monophyletic) subfamily Catenotaeniinae (Tenora *et al.*, 1980, Quentin, 1994, Haukisalmi *et al.*, 2010). However, Mariaux *et al.* (2017) classified *Quentinia* as a genus incertae sedis.

In addition to the morphologic issues, the host and geographic distributions of *Q. mesovitellinica* are peculiar. *Quentinia mesovitellinica* is the only known catenotaeniid species parasitizing hystricomorph rodents and also the only catenotaeniid in South America. Most catenotaeniids parasitize myomorph rodents, with a smaller number in castorimorphs and sciurimorphs, their diversity peaking in cricetid rodents in the Holarctic region and in murid and nesomyid rodents in Africa (Haukisalmi *et al.*, 2018; see also the Global Cestode Database [GCD]; Caira *et al.*, 2023). *Catenotaenia peromysci* Smith, 1954 from Mexico represents the southernmost verified record of a catenotaeniid cestode in the Americas (Carmona Huerta, 1994), with a description.

Following Spasskii (1969), the association of *Q. mesovitellinica* with the Anoplocephalidae sensu stricto [s. s.] has not been considered, despite the fact that the anoplocephalid genera *Andryoides* Haukisalmi, 2023, *Monoecocestus* Beddard, 1914 and *Viscachataenia* Denegri, Dophic, Elissondo & Beveridge, 2003 form the most diverse tapeworm group in South American rodents (see the GCD). The purpose of the present study is to reevaluate the systematic position of the “enigmatic” *Q. mesovitellinica* based on published information, particularly that of Quentin (1967). The syntype specimens of Rêgo (1967), which are in poor condition, are unavailable, and no types were assigned by Quentin (1967).

In the following text, it is assumed that *Q. baltazardi* is a junior synonym of *Q. mesovitellinica*, and only the latter name is used; the status of these taxa is discussed in the end of the Results and Discussion section.

Ethical Approval and/or Informed Consent

This study does not contain any studies with human participants or live animals.

Results and Discussion

Neither Rêgo (1967) nor Tenora *et al.* (1980) specified the reasons for assigning *Q. mesovitellinica* to the Catenotaeniidae, but it may be assumed that the action was based on apparent morphological similarities between the former species and *Catenotaenia* sensu lato [s. l.], particularly the shape of the mature proglottids (more or less elongate) and uterus (with lateral diverticula or sacculations)

and the position of testes (posterior to the female glands). However, *Q. mesovitellinica* differs fundamentally from *Catenotaenia* s. l. and other catenotaeniids with respect to several morphologic features, particularly the shape of the ovary, the position of the vitellarium, the position of the vagina with respect to the cirrus sac, the structure of the fully developed uterus, the prominence of the genital atrium and ability to form a distinct genital papilla, the alternation of genital pores and the structure of the osmoregulatory system (Table 1, Figs. 1, 2). Instead, *Q. mesovitellinica* shares all these features with *Monoecocestus* sensu Beveridge (1994), a genus in the family Anoplocephalidae s. s. Therefore, *Q. mesovitellinica* is evidently a species of *Monoecocestus*, which may have more elongated proglottids than the congeneric species, but does not otherwise differ from them with respect to the main morphologic features.

According to the GCD, the genus *Monoecocestus* sensu Beveridge (1994), which is endemic to the Americas, comprises 27 valid species parasitizing mainly rodents, with one species in artiodactyls and one in birds. Sixteen species occur in hystricomorph rodents in South, Central and North America, with highest diversity in South American caviids (eight species), including two species in *Galea musteloides* Meyen in Bolivia (Haverkost and Gardner, 2010).

Morphologically, *Monoecocestus* spp. are characterized by a single set of genitalia per proglottid, a finely reticulate early uterus confined in the median field, a posterior distribution of testes (forming a transverse band in species with transversely elongated proglottids), and a vagina that runs (partly) anterior to the cirrus sac and opens anterior to the male pore (Fig. 1E). The latter feature is of high diagnostic value, because the vagina is posterior or postero-ventral to the cirrus sac in other anoplocephalids (s. s.) and catenotaeniids. The vagina of *Q. mesovitellinica*, as illustrated in Quentin (1967), is distally anterior to the cirrus sac and opens anterior to the male pore. The arched (“horse-shoe shaped”), symmetric ovary has been regarded as one of the main diagnostic features of the genus *Quentinia* (see Tenora, 1977). However, in *Monoecocestus* there are several species in which the ovary is symmetrically arched, including *M. eljefe* Haverkost & Gardner, 2010 and *M. petiso* Haverkost & Gardner, 2010 from *G. musteloides*, greatly resembling the corresponding organ in *Q. mesovitellinica* (Fig. 1; see also the GCD and Haverkost and Gardner, 2010). The pronounced curvature of the ovary in the type material of *Q. mesovitellinica*, compared with *Monoecocestus* spp., may be related to the excessive elongation of its proglottids.

Compared with other South American anoplocephalids (s. s.), *Q. mesovitellinica* differs from *Viscachataenia* with respect to the same features that differentiate the former species from *Monoecocestus* (Table 1) and also with respect to the number of genitalia per proglottid (double in *Viscachataenia*), and from *Andryoides* with respect to the position of female glands and genital pores in the antero-posterior plane, position of the vagina with respect to the cirrus sac, shape of the ovary and vitellarium and distribution of

Table 1. Main morphologic features that separate *Quentinia* Spasskii, 1969 from *Catenotaenia sensu lato* (Catenotaeniidae) and associate it with *Monoecocestus* Beppard, 1914 sensu Beveridge (1994) (Anoplocephalidae sensu stricto).

	Quentinia	Monoecocestus	Catenotaenia sensu lato
Dorsal longitudinal osmoregulatory canals, position	lateral to ventral canals	lateral to ventral canals	medial to ventral canals, pass between arches of transverse connecting canals
Genital atrium, size	prominent, capable of forming genital papilla	prominent, capable of forming genital papilla	inconspicuous, not capable of forming genital papilla
Genital pores, alternation	irregularly in very short series	regularly or irregularly in very short series	irregularly in relatively long series
Vagina, position	runs anterior to cirrus sac distally, opens anterior to male pore	runs (partly) anterior to cirrus sac, opens anterior to male pore	runs posterior to cirrus sac, opens posterior or postero-ventral to male pore
Ovary, shape	symmetrical, arched	symmetrical; arched, transversely elongated or ovoid	asymmetrical, extensive
Vitellarium, position	median	median or slightly poral	poral
Fully developed uterus, shape	sparsely lobulated/sacculated without distinct trunk, secondary ramifications absent	sparsely lobulated/sacculated without distinct trunk, secondary ramifications absent	deeply lobulated with distinct trunk, secondary ramifications usually present ("dendritic")
Pyriform apparatus in eggs, presence	present in <i>Q. eljefe</i> , undefined in <i>Q. mesovitellinica</i>	present	absent

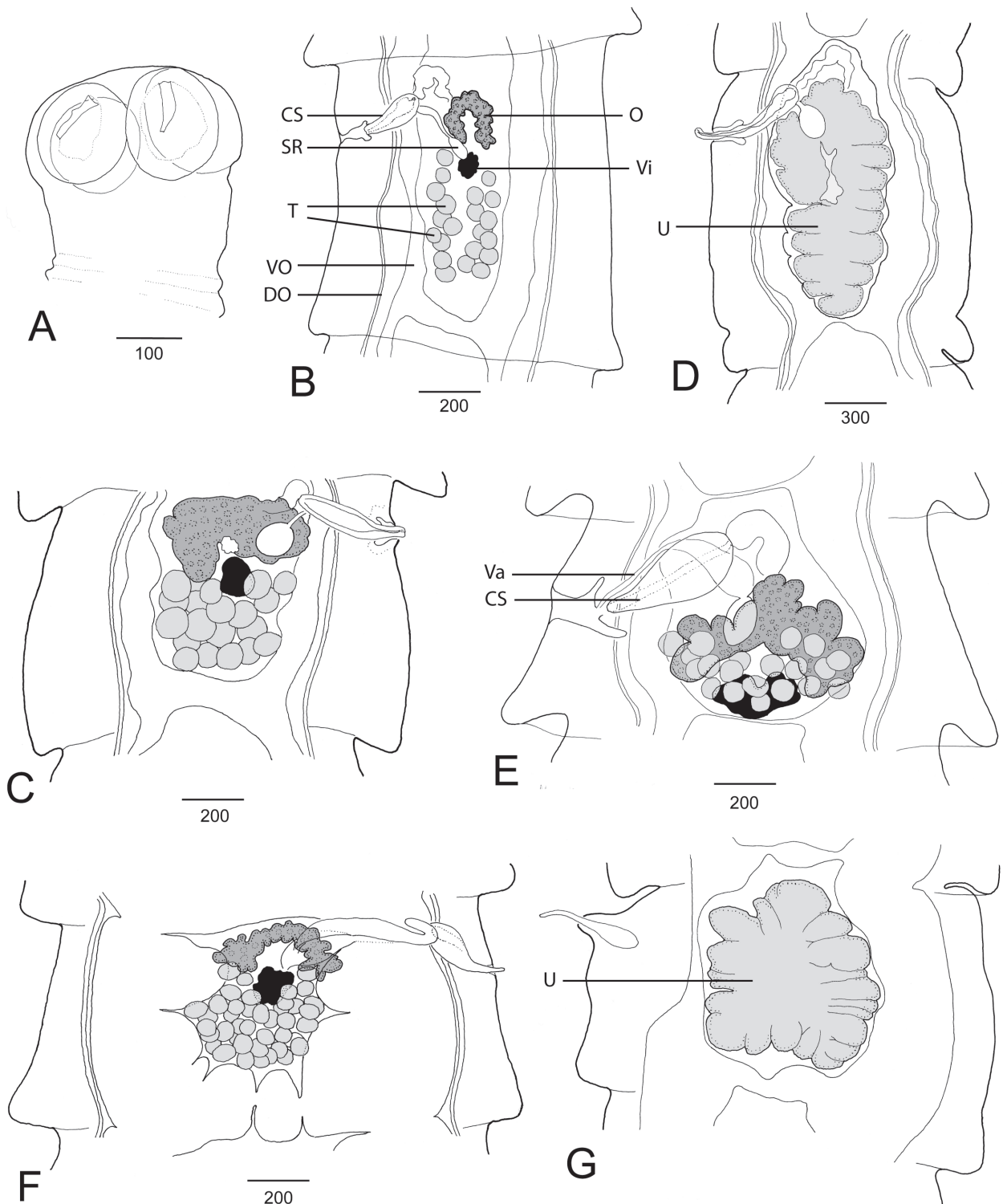


Fig. 1. A-D, *Quentinia mesovittellinica* (Rêgo, 1967), redrawn from Quentin (1967). A, scolex. B, early mature proglottid. C, late mature proglottid. D, gravid proglottid. E, *Monoecoccestus petiso* Haverkost & Gardner, 2010, mature proglottid. F, G, *Quentinia eljefe* (Haverkost & Gardner, 2010) n. comb. F, mature proglottid. G, gravid proglottid (scale-bar not available). E-G redrawn from Haverkost & Gardner (2010). Scale-bars in micrometers. T, testes; CS, cirrus sac; O, ovary; Va, vagina; Vi, vitellarium; SR, seminal receptacle; U, uterus; VO, ventral longitudinal osmoregulatory canal; DO, dorsal longitudinal osmoregulatory canal.

testes (Denegri *et al.*, 2003, Haukisalmi, 2023; see also the GCD). All anoplocephalid (s. s.) cestodes, with a few exceptions, have a pyriform apparatus in the eggs. However, neither of the descriptions of *Q. mesovitellinica* mentions a pyriform apparatus. In the material of Quentin (1967), the eggs were “not fully embryonated”, and the failure of Rêgo (1967) to observe a pyriform apparatus could also have been due to the absence of fully developed eggs or technical issues. In *M. eljefe*, assigned here to *Quentinia* (below), a pyriform apparatus is present (Haverkost and Gardner, 2010).

The structure of the early uterus, an important feature in the genus-level classification of anoplocephalids, has not been described for *Q. mesovitellinica*. This may be due to the facts that the finely reticulated early uterus is sometimes poorly visible, especially in poor-quality specimens, and/or that the presence of such a structure was not specifically examined, because it does not occur in catenotaeniids or in linstowiids. However, the sparsely sacculated pregravid/gravid uterus of *Q. mesovitellinica* (see Quentin, 1967) is similar to the corresponding structure of *Monoecocestus* and other anoplocephalids, and differs distinctly from the “dendritic” uterus of catenotaeniids (Figs. 1, 2).

Although the morphology of eggs and early uterus of *Q. mesovitellinica* is unknown, the facts presented above and in Table 1 show unambiguously that this species is not a catenotaeniid cestode, but belongs to the family Anoplocephalidae s. s. within the genus *Monoecocestus* sensu Beveridge (1994). However, the genus *Monoecocestus* is a morphologically heterogeneous assemblage (see the GCD and Rêgo, 1961), and will probably be split when enough morphologic and phylogenetic information becomes available for a comprehensive taxonomic revision. Therefore, instead of transferring *Q. mesovitellinica* to *Monoecocestus*, *Quentinia* is considered here a valid genus within the Anoplocephalidae s. s. Besides *Monoecocestus* (for *Taenia decrescens* Diesing, 1856) and *Quentinia*, other available names for *Monoecocestus*-like species are *Lentiella* Rêgo, 1964 (for *L. machadoi* Rêgo, 1964) and *Perutaenia* Parra, 1953 (for *Paranoplocephala threlkeldi* Parra, 1952), both synonymized with *Monoecocestus* by Beveridge (1994). *Schizotaenia* Janicki, 1904 (for *M. decrescens*) is preoccupied and *Pecarezia* Spasskii, 1999, which has the same type species as *Monoecocestus* (*M. decrescens*), is a junior synonym of the latter genus. The genus *Lentiella* was revalidated by Haverkost and Gardner (2008) on the grounds that the uterus of the type species *L. machadoi* and that of *Lentiella lamothei* Haverkost & Gardner, 2008 is tubular, thus differing from the reticular early uterus of *Monoecocestus*. However, the illustrations of mature proglottids by Rêgo (1964) and Haverkost and Gardner (2008) fail to show a tubular early uterus, but instead appear to show a finely reticulated uterus, particularly in the type species. Therefore, *Lentiella* should remain a junior synonym of *Monoecocestus* until the morphology of *L. machadoi* and the features differentiating the former genus from *Monoecocestus* have been adequately described.

Among *Monoecocestus* spp., *Q. mesovitellinica* most resembles

M. eljefe from *G. musteloides*, particularly with respect to the position of genital pores (anterior), the transverse and longitudinal position of female glands (median and anterior, respectively), the shape of the ovary (arched, symmetric), the shape and size of the vitellarium (globular, small) and the characteristics of the cirrus sac (slender and relatively short) (Fig. 1). The shared combination of features concerning the position of genital pores and female glands distinguishes *Q. mesovitellinica* and *M. eljefe* among *Monoecocestus* spp. (see the GCD). *Monoecocestus eljefe* seems to be differentiated from *Q. mesovitellinica* mainly by its massive ventral longitudinal osmoregulatory canals (Fig. 1), although this feature is highly variable in the former species (Haverkost and Gardner, 2010). Because of the morphologic similarity and distinctiveness of *Q. mesovitellinica* and *M. eljefe* among *Monoecocestus*-like species, the latter is assigned here to *Quentinia* as *Q. eljefe* (Haverkost & Gardner, 2010) n. comb.

Although Quentin (1994) placed *Q. baltazardi* in synonymy with *Q. mesovitellinica*, no grounds for this action were given. These taxa appear to differ somewhat with respect to the shape of the proglottids and fully developed uterus, but the morphology and relationships of other organs are qualitatively similar (Fig. 1). The comparison of these taxa is hindered by the fact that the material of *Q. mesovitellinica* is in poor condition, which is evident in the original description and also mentioned by the author (Rêgo, 1967). However, *Q. mesovitellinica* and *Q. baltazardi* share the main morphologic features that separate them from *Catenotaenia* s. l. and other catenotaeniids and associate with *Monoecocestus* sensu Beveridge (1994), i.e. the structure and position of the osmoregulatory canals, vagina, ovary and vitellarium, and the structure of the genital atrium and fully developed uterus (Table 1). Even if these taxa turn out to be different species, they should both be placed either in *Monoecocestus* or, as proposed here, in *Quentinia*, in the family Anoplocephalidae s. s. However, the conspecificity of *Q. mesovitellinica* and *Q. baltazardi* and the taxonomic position *Q. eljefe* with respect to the former species probably cannot be solved definitively without new morphologic and molecular data based on good-quality specimens.

***Quentinia* Spasskii, 1969** (Anoplocephalidae sensu stricto)

Syn. *Quentinotaenia* Tenora, Mas-Coma, Murai & Feliu, 1980

Type species: *Q. mesovitellinica* (Rêgo, 1967) Quentin, 1994, syns. *Catenotaenia mesovitellinica* Rêgo, 1967, *Atriotenia (Ershovia) baltazardi* Quentin, 1967, *Quentinia baltazardi* (Quentin, 1967) Spasskii, 1969, *Quentinotaenia mesovitellinica* (Rêgo, 1967) Tenora, Mas-Coma, Murai & Feliu, 1980. The syntypes of *Q. mesovitellinica* are deposited in the Helminthological Collection of the Oswaldo Cruz Institute, Brazil; accession numbers were not given (Rêgo, 1967).

Other species: *Q. eljefe* (Haverkost & Gardner, 2010) n. comb., syn. *Monoecocestus eljefe* Haverkost & Gardner, 2010.

Diagnosis: Strobila slender, of intermediate length. Scolex small. Suckers large relative to size of scolex. Neck short and relatively

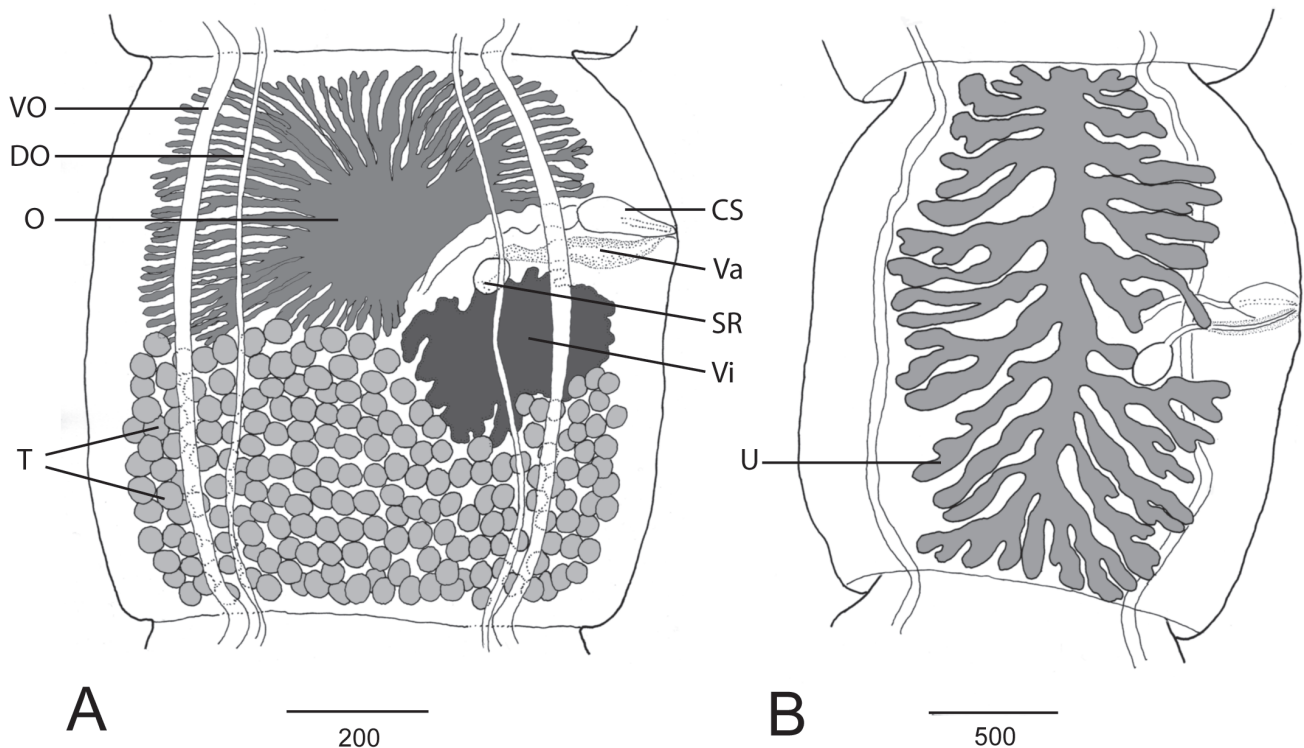


Fig. 2. *Catenotaenia matovi* Genov, 1971. A, mature progliottid, redrawn from Tenora *et al.* (1980). Longitudinal osmoregulatory canals ventral to terminal genital ducts; dorso-ventral position with respect to other organs undefined. B, pregravid progliottid, redrawn from Genov (1971). Scale-bars in micrometers. For symbols, see Fig. 1.

wide with respect to scolex. Progliottids craspedote, shape from slightly wider than long to elongate. Genitalia single. Genital atrium usually prominent, capable of forming genital papilla. Genital pores opening in anterior third or fourth of progliottid margin; pores alternate irregularly in very short series. Two pairs of longitudinal osmoregulatory canals present, narrower dorsal canals lateral to ventral canals. Genital ducts pass ventral and dorsal osmoregulatory canals dorsally. Cirrus sac slender and relatively short; everted cirrus slender, armed with minute spines; elongate internal seminal vesicle present. External seminal vesicle slightly convoluted or sacculated. Testes largely posterior to female glands, confined by ventral longitudinal canals; few testes may be positioned lateral to vitellarium. Vagina as long as cirrus sac, widening distally, positioned ventral and anterior to cirrus sac and opening anterior to male pore. Seminal receptacle spherical or ovoid, overlapping ovary or lying posterior to it. Female glands median. Ovary arched, sparsely lobulated, antero-median. Vitellarium small, globular, positioned posterior to ovary. Structure of early uterus unknown. Fully developed uterus sparsely sacculated, confined by ventral longitudinal canals. Morphology of eggs in type species unknown; pyriform apparatus present in *Q. eljefe*. In *Galea* spp. (Caviidae, Hystricomorpha) in South America.

Conflict of Interest

The author states no conflict of interest concerning the present study.

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References

- BEVERIDGE, I. (1994): Family Anoplocephalidae Cholodkovsky, 1902. In: Khalil, L.F., Jones, A., Bray, R.A. (Eds) *Keys to the Cestode Parasites of Vertebrates*. Wallingford, Oxfordshire, UK: Commonwealth Agricultural Bureaux International, pp. 315 – 366
- CAIRA, J.N., JENSEN, K., BARBEAU, E. (2023): Global Cestode Database. World Wide Web electronic publication. Retrieved September 10, 2023, from www.tapewormdb.uconn.edu
- CARMONA HUERTA, A. (1994): *Contribución al conocimiento de céstodos en roedores silvestres (Rodentia) del Estado de Hidalgo y Veracruz [Contribution to the knowledge of cestodes in wild rodents (Rodentia) of the State of Hidalgo and Veracruz]*. Thesis,

- Los Reyes Iztacala, México: Universidad Nacional Autónoma de México (In Spanish)
- DENEGRI, G., DOPCHIZ, M.C., ELISSONDO, M.C., BEVERIDGE, I. (2003): *Viscachataenia* n. g., with the description of *V. quadrata* (von Linstow, 1904) n. comb. (Cestoda: Anoplocephalidae) in *Lagidium viscacia* (Rodentia: Chinchillidae) from Argentina. *Syst Parasitol*, 54: 81 – 88. DOI: 10.1023/a:1022589725500
- GENOV, T. (1971): A new cestode from rodents in Bulgaria - *Catenotaenia matovi* sp. nov. (Cestoidea, Catenotaeniidae). *Compt. Rend. Acad. Sci. Agr. Bulg.*, 4: 119 – 122
- GENOV, T., TENORA, F. (1979): Reorganization of the system of cestodes of the family Catenotaeniidae Spassky, 1950. *Helminthologia*, 8: 34 – 41
- GEORGIEV, B.B., BRAY, R.A., LITTLEWOOD, D.T. (2006): Cestodes of small mammals: Taxonomy and life cycles. In: MORAND, S., KRASNOV, B.R., POULIN, R. (Eds) *Micromammals and macroparasites. From evolutionary ecology to management*. Tokyo: Springer-Verlag, pp. 29 – 62
- HAUKISALMI, V. (2023): *Andryoides* gen. n. and morphological key features in cestodes of the family Anoplocephalidae sensu stricto (Cyclophyllidea) in mammals. *Folia Parasitol*, 70: 006. DOI: 10.14411/fp.2023.006
- HAUKISALMI, V., HARDMAN, L.M., HENTTONEN, H. (2010): Taxonomic review of cestodes of the genus *Catenotaenia* Janicki, 1904 in Eurasia and molecular phylogeny of the Catenotaeniidae (Cyclophyllidea). *Zootaxa*, 2489: 1 – 33. DOI: 10.11646/zootaxa.2489.1.1
- HAUKISALMI, V., RIBAS, A., JUNKER, K., SPICKETT, A., MATTHEE, S., HENTTONEN, H., JRJER, J., HALAJIAN, A., ANDERS, J.L., NAKAO, M. (2018): Molecular systematics and evolutionary history of catenotaeniid cestodes (Cyclophyllidea). *Zool Scripta*, 47: 221 – 230. DOI: 10.1111/zsc.12272
- HAVERKOST, T.R., GARDNER, S.L. (2008): A new species of *Lentiella* (Cestoda: Anoplocephalidae) from *Proechimys simonsi* (Rodentia: Echimyidae) in Bolivia. *Rev Mexic Biodiv*, 79: 99S – 106S. DOI: 10.22201/ib.20078706e.2008.001.517
- HAVERKOST, T.R., GARDNER, S.L. (2010): New species in the genus *Monoecocestus* (Cestoda: Anoplocephalidae) from neotropical rodents (Caviidae and Sigmodontinae). *J Parasitol*, 96: 580 – 595. DOI: 10.1645/GE-2089.1
- MARIAUX, J., TKACH, V.V., VASILEVA, G.P., WAESCHENBACH, A., BEVERIDGE, I., DIMITROVA, Y.D., HAUKISALMI, V., GREIMAN, S.E., LITTLEWOOD, D.T.J., MAKARIKOV, A.A., PHILLIPS, A.J., RAZAFIARISOLO, T., WIDMER, V., GEORGIEV, B.B. (2017): Cyclophyllidea van Beneden in Braun, 1900. In: CAIRA, J.N., JENSEN, K. (Eds) *Planetary Biodiversity Inventory (2008 – 2017): Tapeworms from Vertebrate Bowels of the Earth. Special Publication No. 25*. Lawrence, Kansas, USA: University of Kansas, Natural History Museum, pp. 77 – 148
- QUENTIN, J.-C. (1967): *Atriotaenia (Ershovia) baltazardi* n. sp. (Cestoda, Linstowiidae) parasite d'un rongeur du Brésil: *Galea spixii* (Wagner). *Bull. Mus. Nat. Hist. Nat. Ser. 2*, 39: 595 – 602 (In French)
- QUENTIN, J.-C. (1971): Cestodes *Skrjabinotaenia* de Rongeurs Muridés et Dendromuridés de Centrafrique. Hypothèse sur l'évolution des Cestodes Catenotaeniinae. *Cahiers Maboké*, 9: 57 – 79 (In French)
- QUENTIN, J.C. (1994): Family Catenotaeniidae Spasskii, 1950. In: KHALIL, L.F., JONES, A., BRAY, R.A. (Eds) *Keys to the Cestode Parasites of Vertebrates*. Cambridge: CAB International, pp. 367 – 374
- RÉGO, A.A. (1961): Revisão do gênero *Monoecocestus* Beddard, 1914 (Cestoda, Anoplocephalidae) [Revision of the genus *Monoecocestus* Beddard, 1914 (Cestoda, Anoplocephalidae)]. *Mem Inst Oswaldo Cruz*, 59: 325 – 354 (In Portuguese)
- RÉGO, A.A. (1964): "*Lentiella machadoi*" g. n., sp. n. e "*Raillietina (R.) trinitatae*" (Cameron & Reesal, 1951), parasitos de roedor (Cestoda, Cyclophyllidea) ["*Lentiella machadoi*" n.g., n.sp. and "*Raillietina (r.) trinitatae*" (Cameron and Reesal, 1951), parasites of rodents (Cestoda, Cyclophyllidea)]. *Rev Bras Biol*, 24: 211 – 220 (In Portuguese)
- RÉGO, A.A. (1967): Sobre alguns cestódeos parasitos de roedores do Brasil [About some cestodes parasites of rodents in Brazil]. *Mem. Inst. Oswaldo Cruz*, 65: 1 – 18 (In Portuguese)
- SCHMIDT, G.D. (1986): *CRC handbook of tapeworm identification*. Boca Raton, Florida, USA, CRC Press Inc., 675 pp.
- SPASSKII, A.A. (1969) *Quentinia*, gen. n. (Anoplocephalidae) - novyi rod cestod mlekopitayuschih [*Quentinia*, gen. n. (Anoplocephalidae) - a new genus of cestodes from mammals]. In: [Seventh All-Union Conference on Natural Foci of Diseases and General Problems of Animal Parasitology, Samarkand, 4-18 October 1969]. Alma-Ata, Kazakhstan, pp. 100 – 103 (In Russian)
- TENORA, F. (1977): Reorganization of the system of cestodes of the genus *Catenotaenia* Janicki, 1904. Evolutionary implications. *Acta Univ. Agric. Brno*, 25: 163 – 170
- TENORA, F., MAS-COMA, S., MURAI, É., FELIU, C. (1980): The system of cestodes of the suborder Catenotaeniata Spassky, 1963. *Parasitol. Hung.*, 13: 39 – 57
- TENORA, F., MURAI, É. (1975): Cestodes recovered from rodents (Rodentia) in Mongolia. *Ann. Hist. Mus. Nat. Hung.*, 67: 65 – 70