

猫圆线虫属一新种描述

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猫圆属线虫(*Aelurostrongylus*), 国外已报道5种, 主要寄生在猫、大灵猫、松貂、水貂及獾等动物内。1956年, 作者在成都动物园解剖的2只小熊猫和1983年在重庆市动物园解剖的数只小熊猫, 均在肺部小枝气管内发现本虫, 其特征与已报道的5种猫圆属线虫显然不同, 确定为一新种, 命名为中华猫圆线虫(*Aelurostrongylus sinica*)。

新 种 描 述

Aelurostrongylus sinica Wu et Zhang, Sp. nov.

模式标本: 正模1, 配模1, 副模9, 9, 保存于四川省养猪研究所。

虫体纤细, 黄褐色, 角皮膨胀。口孔小, 有唇2片, 每片分为3叶。头端有4对小的亚中乳突, 一对大的头感器。体表有浅而密的纵线和横纹。雄虫颈乳突不明显, 雌虫在神经环前方有一对小而明显的颈乳突。食道短粗。神经环位于食道中部前方水平。排泄孔位于神经环稍后方水平。

雄虫: 体长13.757—21.000(16.477)毫米, 中宽0.179—0.214(0.198)毫米, 伞前宽0.102—0.187(0.140)毫米。食道长0.205—0.259(0.225)毫米, 后部最宽0.042—0.054(0.046)毫米。神经环距头端0.082—0.116(0.099)毫米。颈乳突不明显。排泄孔距头端0.096—0.149(0.120)毫米。缺伞前乳突。交合伞发育良好, 伞肋明显, 末端钝圆, 均未达到伞缘。前腹肋大, 长0.040—0.064毫米, 末端有一个棘状突起, 长0.003毫米。后腹肋短, 从腹肋中部分出, 分枝长约0.009毫米。前侧肋长, 0.040—0.051毫米; 中侧肋略短, 长0.023—0.032毫米; 后侧肋短, 长0.017毫米, 往往只见短枝芽状的突起。外背肋微弯曲, 末端不分枝。背肋短宽, 基部长0.015—0.020毫米, 宽0.041—0.055毫米, 在其末端两侧各有2个彼此靠近的分枝, 长枝位于背侧, 长0.023—0.030毫米, 短枝位于腹侧, 长0.015—0.020毫米。交合刺一对, 等长, 黄褐色, 呈弓形弯曲, 有横纹, 末端不分枝。交合刺长0.316—0.374(0.354)毫米, 中宽0.007—0.009(0.008)毫米, 近端最宽0.010—0.019(0.013)毫米。引带棒状, 近端细, 呈弯曲的

钩形，末端稍宽大。引带长0.047—0.080(0.070)毫米，末端最宽0.007毫米。缺支持器。

雌虫：体长28.300—53.200(39.790)毫米，中宽0.259—0.332(0.290)毫米，食道长0.245—0.316(0.283)毫米，后部最宽0.052—0.064(0.057)毫米。神经环距头端0.111—0.165(0.130)毫米。颈乳突小，距头端0.083—0.121(0.106)毫米，未伸出角皮。排泄孔距头端0.089—0.179(0.128)毫米。阴门位于体后方，距尾端0.143—0.182(0.162)毫米。阴道长0.110—0.184(0.131)毫米，宽0.019—0.030(0.026)毫米。肛门距尾端0.025—0.071(0.057)毫米。直肠长0.083—0.118(0.100)毫米。雌虫尾端正中角皮上，有较多的颗粒状小突起，其内背侧和腹侧各有一个小的突起。子宫末段和阴道内的虫卵椭圆形，卵壳薄而光滑，透明，内含一条幼虫。虫卵长0.063—0.080(0.073)毫米，宽0.039—0.050(0.046)毫米。

从粪便中分离出的第一期幼虫，体长0.289—0.348毫米，中宽0.013—0.017毫米。食道长0.129—0.165毫米。神经环位于食道前1/3水平。肠管由小颗粒状物组成。尾长0.033—0.044毫米。尾稍波状弯曲，长0.007—0.010毫米，背侧有一明显的凹痕，但无背刺。

宿主：小熊猫(*Ailurus fulgens*)。

寄生部位：肺脏小枝气管。

发现地点：成都动物园，重庆动物园。

时间：1956年(成都)及1983年(重庆)。

Cameron(1927)报道猫的奥妙猫圆线虫(*Aelurostrongylus abstrusus*)以后，陆续报道的种类有*A. falciformis*(Schsegel, 1933)Wetzel, 1938, *A. brauni*(Linstow, 1897)Dougherty, 1946; *A. coloradoensis* Olsen, 1952; *A. pridhami* Anderson, 1962等。我们在小熊猫(*Ailurus fulgens*)内发现的猫圆线虫，具有虫体大，交合刺长，引带细长，背肋短而宽，末端两侧共分为4枝，后侧肋短小，前侧肋末端有一棘状物，雌虫还具有颈乳突等特征，与已报道的5种猫圆线虫均有显著区别(见表)，故确认为一新种，命名为中华猫圆线虫(*Aelurostrongylus sinica* sp. nov.)。

表 六种猫圆属线虫的比较

	是体长mm	交合刺长mm	引带mm	背肋	交合刺纵肋
<i>A. abstrusus</i>	5.2~6.0 10.0~10.4	0.13~0.22	0.018, 由2个平行相等的部分组成, 末端联合	宽大分2枝	无
<i>A. brauni</i>	16.19 50	短, 0.22	呈鱼钩形	未记载	有
<i>A. cooradoensis</i>	15	短, 0.117~0.138	缺	分5枝	无
<i>A. falciformis</i>	27 29.0(部分断片)	短, 0.124~0.135	0.038~0.046, 呈球拍形	分2枝	无
<i>A. pridhami</i>	19	短, 0.084	0.030, 薄而扁平	较粗大, 分3枝	无
<i>A. sinica</i>	13.757~21.00 28.400~53.20	0.316~0.374	0.047~0.080细长棒状, 近端有钩状弯曲	短而宽分4枝	无

猫圆属线虫分种检索表

1. 交合刺长0.316—0.374毫米, 背肋分为4枝, 小熊猫的寄生虫.....*A.sinica sp.nov.*
交合刺短于0.3毫米, 背肋为另一种形态.....2.
2. 交合刺长大于0.2毫米.....3.
交合刺短于0.2毫米.....4.
3. 交合刺长0.22毫米, 有特殊的纵肋; 引带旦鱼钩形, 大灵猫的寄生虫.....*A.brauni*
交合刺长0.13—0.22毫米, 无特殊的纵肋; 引带由两个平行相等末端相联的部分组成, 猫和松貂的寄生虫.....*A.abstrusus*
4. 背肋分为5枝; 引带缺, 美洲貂的寄生虫.....*A.coloradoensis*
背肋分为2枝或3枝; 有引带.....5.
5. 背肋分为2枝; 引带呈球拍形, 长0.033—0.046毫米, 獾和松貂的寄生虫.....
.....*A.falciformis*
背肋分为3枝; 引带薄而扁平, 不呈球拍形, 长约0.030毫米, 美洲水貂的寄生虫.....
.....*A.pridhaami*

参 考 文 献

- Anderson R. C. 1962 The systematics and transmission of new and previously described *Metastrongyles*(Nematoda:Metastrongylidae)from *Mustela vison*.Can. J.Zool. , 40:893—918.
- Cameron J.W.M. 1927 Observations on the life history of *Aelurostrongylus abstrusus*(Railliet)the lung worm of the cat.J.Helminthol. , 5(2):55—56.
- Cameron J.W.M. 1927 Studies on three new genera and some little known species of the nematode family Protostrongylidae Leiper , 1926.J.Helminthol. , 5:1—24.
- Dougherty E.C. 1946 The genus *Aelurostrongylus* Cameron 1927(Nematoda: Metastrongylidae)and its relatives , with descriptions of *Parafilaroides* gen.nov. and *Angiostrongylus gubernaculatus* sp. nov. , Proc. Helminthol. Soc.Wash. , 13:16—25.
- Lapage G. 1956 Veterinary Parasitology.153—155.
- Levine N. D. 1980 Nematode Parasites of Domestic Animals and of Man. 2nd ed.PP.236.
- Monnig H.O. 1938 Veterinary Helminthology and Entomology. 248—249.
- Olsen O.W. 1952 *Crenosoma coloradoensis* n. sp. (Nematoda:Metastrongylidae) from the lungs of martens , *Martes caurina origenes*(Rhoads.). J.Parasitol. , 38:207—209.
- Yamaguti S. 1961 Systema Helminthum.Vol.3 , part.1:497—498.
- P . . 1979 O H A . T 29:62—76.

Description of a new Species of the genus Aelurostrongylus(Nematoda)

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Abstract

Aelurostrongylus sinica Wu et Zhang , sp. nov .

This species is yellowish-brown in colour. The body is slender with swelling cuticle. The males are 13.757—21.000mm in length, 0.179—0.214 mm in width near middle of the body and 0.102—0.187mm wide before the bursa. All rays of the bursa which is well developed are distinct, blunt and round at the end, without reaching the bursal edge. The dorsal ray which is short and broad, is divided into tetrafurcation. The extero-dorsal rays are curved. The lateral rays rise from a common stalk, but the antero-lateral ray is longer than medio-lateral and the postero-lateral ones. The postero-lateral is bud-shaped prominency and the shortest. The ventral ray which rises from a same stalk, divides into bifurcation in the middle. The ventro-ventral ray with a pine-like prominence at the centre of the end edge is longer than the latero-ventral ray. The spicules are equal, with a fine transversely striated ala, 0.316—0.374mm long, yellowish-brown in colour and bow-shaped curve, the middle width 0.007—0.009mm, and maximum width at anteral extremity 0.010—0.019mm. Gubernaculum is club-shaped, which is thin and hook-shaped at the anteral extremity and slightly broader and larger at the end, 0.047—0.080mm in length and 0.007mm in maximum width near the end. The females are 28.4—53.2mm in length and 0.259—0.332mm in width near middle of the body. The vulva which is situated in the posterior part of the body, is 0.143—0.182 mm from the caudal extremity. The anus is 0.025—0.071mm from the caudal extremity. The first-stage larva is 0.289-0.328 mm in length with an undulated tail. NO dorsal spine is found.

Type-specimens : Holotype 1 1 and Paratype 9 , 9

Host: *Ailurus fulgens*.

Location: Bronchiolus in lungs.

Locality: Chengdu Zoo, Chengdu, Sichuan, China and Chongqing Zoo, Chongqing, Sichuan, China.

Date: 1956(Chengdu) and 1983(Chongqing).

Type specimens are deposited in Sichuan Provincial Swine Breeding Institute.

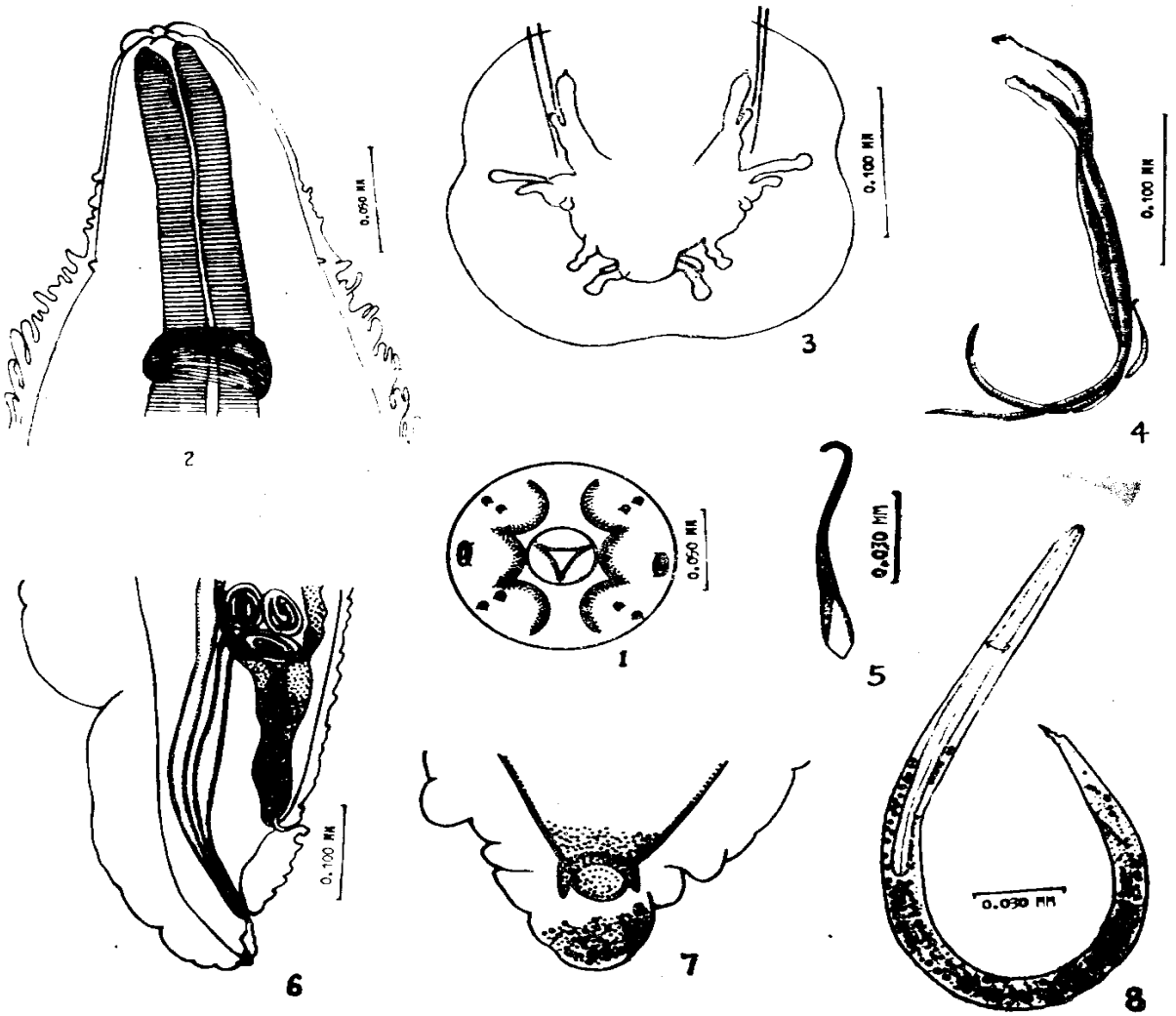


图 版 说 明

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|----------|---------------------|
| 1. 头端顶面 | 2. 虫体前部，角皮膨胀及颈乳突() |
| 3. 交合伞 | 4. 交合刺及引带 |
| 5. 引带，腹面 | 6. 雌虫后部 |
| 7. 雌虫尾端 | 8. 第一期幼虫 |