

Glauxinemella striata gen. et sp. n. from Europe (Nematoda: Diplogasterida)

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A new genus, *Glauxinemella* gen. n. is erected for *G. carinata* (Zullini, 1980), comb. n. (*Oigolaimella*) and *G. striata* sp. n. (European Russia).

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Introduction

Oigolaimella carinata was described by Zullini (1980) from polluted fresh water habitats (N Italy). Its morphological characteristics do not correspond fully to the diagnosis of the genus *Oigolaimella*. Nematodes morphologically close to *O. carinata* were found in humus of a greenhouse in the settlement Borok, Yaroslavl' Prov. Examination of these nematodes allowed description of a new genus, *Glauxinemella* gen. n., in which are included two species: *G. carinata* (Zullini, 1980), comb. n. and *G. striata* sp. n.

Glauxinemella gen. n.

Type species *Oigolaimella carinata* Zullini, 1980.

Diagnosis. Neodiplogasterinae. Body length 0.5-1.0 mm. Males smaller and slenderer than females. Cuticle with transverse striation, with longitudinal ridges arising from sclerotia. Front edge of head flattened. Lips absent. 6 setiform labial papillae around oral opening. Males with 4 additional setiform papillae placed behind the former. Amphids slit-like, at level of stoma base. Buccal cavity (stoma) divided into two parts: broader anterior part composed of cheilo-, promeso- and metarhabdions, and narrower posterior part composed of telorhabdions only. Cheilostoma barrel-shaped, with 6 strongly cuticularized ribs. Metarhabdion tubercles high and narrow. Dorsal metarhabdion tubercle bearing strongly cuticularized, relatively small, claw-like, mobile tooth. Tubercle of right subventral metarhabdion with weakly cuticularized, im-

movable, badly seen pyramidal tooth. Left subventral metarhabdion with single, weakly cuticularized tubercle; plate of this tubercle serrate, often reduced, in the form of thorn or dent. Telostoma relatively small, square. Dorsal telorhabdion longer than subventral telorhabdions. 1-2 denticles at stoma base. Anterior muscular section of oesophagus always longer than its posterior glandular section. Female gonads paired, with amphidromous ovaries. Testis simple, recurved. Spicules separate, slender, sickle-like, without heads, their apical ends hook-like, bent. Gubernaculum very characteristic, complicated; its main part stirrup-shaped, with posterior spine; its anterior appendix in the form of a ridge. Bursa rudimentary. Tail long, with filiform terminus in both sexes.

Comparison. The new genus differs from the genus *Mononchoides* Rham, 1928 in the smaller stoma, relatively smaller metastomal teeth and the shape of telostoma; from the genus *Oigolaimella* Paramonov, 1952 in the structure and size of metastomal tooth apparatus and presence of telostoma.

Included species: *G. carinata* (Zullini, 1980), comb. n. and *G. striata* sp. n.

Glauxinemella striata sp. n.

(Figs 1-5)

Holotype. ♂, Russia, Yaroslavl' Prov., settlement Borok, humus from greenhouse, 28.IV.1996, slide No. 71/75, Institute of Parasitology, Russian Academy of Sciences, Moscow.

Paratypes. 23 ♀, 16 ♂ collected with the holotype.

Measurements. See Table.

Description. Relatively small worms, males smaller and slenderer than females. Cuticle

Table. Measurements of *Glauxinemella striata* sp. n.

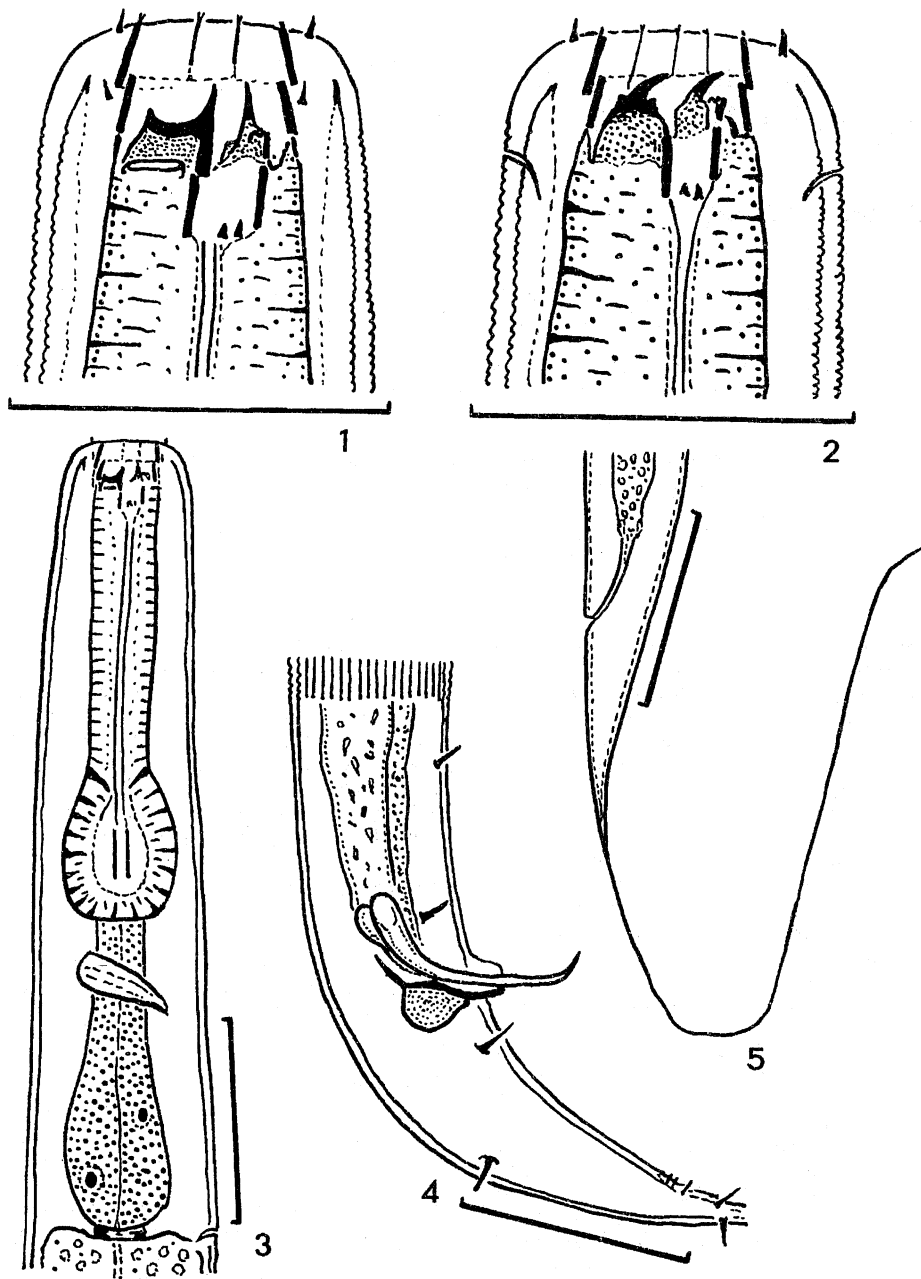
Characteristics	Males			Females	
	Holotype	Paratypes (n = 16)		Paratypes (n = 23)	
		Range	Mean	Range	Mean
L, μm	608	505-693	610	526-818	687
a	29	21-31	26	16-29	22
b	5.3	4.6-6.1	5.5	4.6-6.6	5.5
c	3.7	2.7-4.7	3.9	2.7-4.0	3.2
c'	8.4	6.9-10.0	8.7	9.1-21.4	13.1
V	—	—	—	35.1-46.4	41.7
Oesophagus length, μm	115	102-120	110	98-142	124
Posterior end of oesophagus-vulva, μm	—	—	—	112-238	163
Vulva-anus, μm	—	—	—	126-231	182
Posterior end of oesophagus-anus, μm	329	213-409	343	—	—
Tail length, μm	164	126-190	157	168-280	218
Head width, μm	12	11-13	12	11-17	15
Stoma length, μm	8	7-8	8	7-10	8
Head width : stoma length	1.5	1.4-1.9	1.5	1.5-2.0	1.7
Anterior section of oesophagus : posterior section of oesophagus	1.6	1.5-1.8	1.6	1.5-2.6	1.8
Tail : vulva-anus	—	—	—	1.0-1.5	1.2
Spicula length, μm	28	26-29	28	—	—
Gubernaculum length, μm	18	18-20	19	—	—

with transverse striation, with 42-46 longitudinal ridges in vulva region. Ridges formed by short lines. Thickness of cuticle 1.0-1.5 μm . Front edge of head flattened. Head continuous with neck contour, 11-17 μm wide. Body at proximal end of oesophagus 2-3 times as wide as head diameter. Lips absent. 6 setiform labial papillae, 1.0-1.5 μm long, arranged around oral opening. In males, additional 4 setiform papillae, about 2.0 μm long, situated behind the former. Stoma of approximately equal width and length. Cheilorhabdions usually shorter than promesorhabdions. Cheilostoma walls with 6 cuticularized curved ribs; apical ends of ribs bifurcated. Metastomal tubercles high and narrow. Dorsal metarhabdion tubercle bearing strongly cuticularized, relatively small, claw-like, mobile tooth. Right subventral metarhabdion tubercle with weakly cuticularized, immovable, badly seen, pyramidal tooth. Left subventral metarhabdion tubercle bearing weakly cuticularized singular, narrow plate, its upper edge serrate. This plate often reduced, in the form of thorn or tooth. Telostoma small, of approximately equal width and length. Dorsal telorhabdion always longer than subventral telorhabdions. 1-2 denticles at stoma base. Amphids opening slit-like, at level of stoma base. Oesophagus slender. Anterior muscular section

of oesophagus 1.5-2.7 times as long as its posterior glandular section. Excretory pore situated at level of frontier between oesophagus and intestine. Female gonads paired, with amphidromous ovaries. Vulva slit-like, preequatorial. Vulva lips weakly cuticularized, not protruded. Vagina oblique, shorter than half of corresponding body diameter. In uterus 1-2 synchronous eggs, size 43-50 \times 24-35 μm . Length of rectum 1.5-2.0 times the large anal diameter. Testis simple, recurved. Spicules separate, slender, sickle-like, without heads; apical ends of spicules hook-like, bent. Spicules 1.3-1.6 times as long as anal diameter. Gubernaculum very characteristic, complicated; its main part stirrup-shaped, with posterior spine; its anterior appendix in the form of a "slide". Bursa rudimentary. Males with 9 pairs of sexual setiform papillae: 2 pairs precloacal and 7 pairs postcloacal. Tail long, with filiform terminus in both sexes.

Comparison. The new species differs from *G. carinata* (Zullini, 1980) in the greater number of longitudinal ridges at cuticle (in *G. carinata*, 24-26 longitudinal ridges), fewer sexual papillae in males (in male of *G. carinata*, 10 pairs of sexual papillae) and shorter spicules (in males of *G. carinata*, spicules 30-32 μm long).

Etymology. The name of the new species means "striped".



Figs 1-5. *Glauxinemella striata* gen. et sp. n. 1, male head in lateral view; 2, female head in ventral view; 3, oesophagus of male; 4, tail of male; 5, tail of female. Scales: 15 μ m (1, 2), 30 μ m (3, 4), 50 μ m (5).

Acknowledgements

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References

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