

Zoology

New Nematode *Opailaimus andrassyi* n.sp. (Dorylaimida: Opalaimidae) from Georgia

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ABSTRACT. A new species from genus *Opailaimus*, revealed on the territory of Tbilisi, is described. It is the third representative of the genus. Measurements, pictures of the new species and key of species of the genus are given. © 2009 Bull. Georg. Natl. Acad. Sci.

Key words: nematode, amphid, odontostyle.

Opailaimus andrassyi n.sp.

Measurements:

Holotype: ♀ L=0.87mm; a=39, b=3.6, c=26, v=57% (Preparation N1)

Allotype: ♂ L=0.9mm; a=36, b=3.8, c=32.4, spic.22 mkm; suppl.: 1+4(2+2) (Preparation N2)

Paratypes: 3 ♀ L=0.77-1.12mm; a=33.5-42.0, b=3.1-4.5, c=23.0-33.5, v=50.4-57.0% and 7 juv. (Preparations N3-4)

Not big, quite slender nematodes with unusually big amphids. Amphid pouch is so large that it can be noticed even on a small magnification of the microscope (4.4 mkm). The duct of amphidial gland, the length of which is 22 mkm, is well seen.

Cuticle is smooth, its thickness is equal to 1.1 mkm. Labial part is much narrower than the following part, and that is why it is well marked out of the contours of the body. The width of the head part is 6.6 mkm, labial ring absent.

Odontostyle is small, equals the labial diameter in length, spear lumen is noticed. Opening of the spear is approximately equal to 1/5 of its length. Oesophagus is dorylaimid, anterior part of it is narrow, expansion starts a little bit in front of the middle. The length of the oesophagus is 246-250 mkm. Nervous ring is situated at the distance of 99 mkm from the front end of the body.

The widened part of the oesophagus is muscular and is surrounded by well developed cover.

Cardia is short, rounded, about 8.0 mkm in length. Vulva – postequatorial, transversal. Females – amphidelphic, gonads are inverted. The distance from vulva to gonad's bend is 60 mkm. The length of inverted part of gonads is 38.5 mkm or twice more of the body's diameter. Vagina is rounded, slightly sclerotized, 2.4 times less than the width of the body.

The distance vulva-anus is equal to 336 mkm, 11 times more than the length of the tail. One female (prep.3) has an oblonged egg (88x24 mkm).

Rectum is less than the anal diameter. Prerectum is indiscernible. The tail is conic, lengthened, is twice more than the anal diameter (29.7 mkm), gradually narrows and ends in finger-shaped terminus.

The only male (prep. 2) found in the park "Mziuri" (water-forest) is larger than females. Spicule is dorylaimid, less than the length of the tail (22 mkm), with not large (7.0 mkm) appendix. Supplements are separated: there are 4 supplements located in pairs (2+2) besides the preloocal one.

Differential diagnosis: *Opailaimus andrassyi* n.sp. according to general structure is close to the species – *O.mirus* and *O.Kirjanovae*, described by Kiryanova [1] and Andrassy [2]. It is distinguished from them by the presence of a male. In comparison with the first one it is distinguished by the following features: 1) Labial part is distinguished from the contours of the body (in *O.mirus* it merges with the contours of the body); 2) Odontostyle is short, equal to 6.6 mkm (in *O.mirus* – 40 mkm); 3) The tail of new species is lengthened-conic, with finger-shaped terminus (in *O.mirus* the tail is convex-conoid).

From the second species the new species is distinguished by the following: 1) Females are not large in size (0.77-0.87 mm against 1.18-1.28 mm); 2) Females are amphidelphic (*O.kirjanovae* – monodelphic – prodelphic); 3) Tail is of different form; 4) New species lacks strongly developed ring-like labial formation.

5 pubescent samples and 7 juvenile forms of a new species *O.andrassyi* were found in August, 2008 at the

following points of material collection in Tbilisi: square in Chodrishvili str. (prep.1), park "Mziuri", water-forest (prep.2), territory of the former Transcaucasian military headquarters (prep.3 and 4).

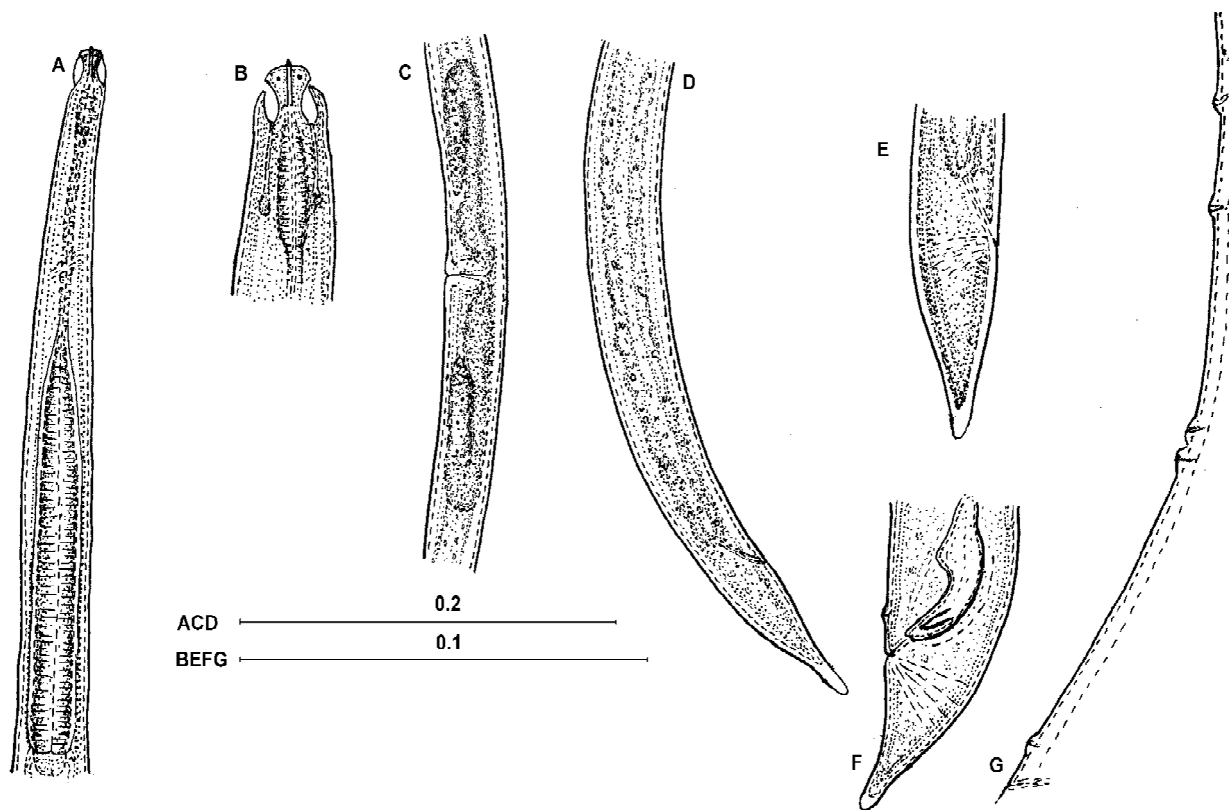
Material is preserved in the form of glycerine preparations in the laboratory of nematology of the Institute of Zoology: preparations N1 – holotype and N2 – allotype, N 3 and 4 – paratypes.

The species is named in honour of the world-known nematologist Prof. István Andrassy.

Discussion.

The species *Opailaimus*, described by Kirjanova in 1951 [1], for a long time was considered problematic due to incomplete description and not enough detailed pictures; Krall [3] in Estonia found several larvae, which he referred to *O.mirus Kirjanova*, 1951. Andrassy [4] discussing the species *Opailaimus* and *Ottolaimus*, noted their problematic character. In his opinion the species *Opailaimus* is identical to *Dorylaimellus*. The same opinion is reported in his later work [5]. In 1982 Andrassy [2] described in Hungary a new species *Opailaimus kirjanovae* Andrassy, 1982, and thus the problem of validity of the genus *Opailaimus* was removed.

Below the key of the species of genus *Opailaimus* is given.



A – Anterior region; B – Female head; C – Vulva region; D, E – Female tail; F – Male tail; G – Series of supplements

The key of the species of the genus *Opailaimus*

1(2) Females monodelphic, prodelfhic; body's length is 1.18-1.28 mm

————— **O.kirjanovae Andrassy, 1982**

2(1) Females amphidelphic. Body's length of females is less than 1 mm.

3(4) Odontostyle long, equal to 40 mkm; the tail is convex-conoid; terminus is widely round; labial region is not distinguished from body's contours

————— **O. mirus Kirjanova, 1951**

4(3) Odontostyle short, equal to labial diameter (6.6 mkm), tail – conic, gradually narrowed, finger-shaped terminus; labial region of the straight following part of the body is distinguished

————— **O. andrassyi n.sp.**

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ზოოლოგია

ახალი ნემატოდა *Opailaimus andrassyi* n.sp. (Dorylaimida: Opalaimidae) საქართველოდან

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აღწერილია მეცნიერებისათვის ახალი სახეობა *Opailaimus*-ის გვარიდან, დადგენილი ქ.თბილისის ტერიტორიაზე. აღწერილი სახეობა არის გვარის მესამე წარმომადგენელი. მოცემულია განაზომები, სურათები და გვარის წარმომადგენელთა სარკვევი.

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