

A NEW NEMATODE SPECIES OF THE GENUS APHELENCHOIDES FISCHER, 1894
(NEMATODA: APHELENCHOIDIDAE)

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Descriptions and an illustration are given of a new nematode of the genus Aphelenchoides, observed in the roots of the soybean (Glycine hispida) in the Amur region.

During an investigation of soybean crops' nematode-fauna in the Amur region in 1968, we observed in the root system of plants three nematode specimens of the genus Aphelenchoides. They differ in the form and arrangement of the mucro on the tip of the tail from descriptions of species by a group of authors (Baranovskaya, 1963; Eroshenko, 1967, 1968; Romaniko, 1966; Husain & Khan, 1967; Siddiqi & Franklin, 1967; Siddiqi, Husain & Khan, 1967). Since the structure of the mucro and its arrangement are important characteristics for species of a given genus, as pointed out by Paramonov (1964), we deem it possible to ascribe the nematodes observed to a new species. The measurements and illustrations were made from nematodes fixed in a 6% solution of formalin and kept in permanent preparations in glycerine-gelatin.

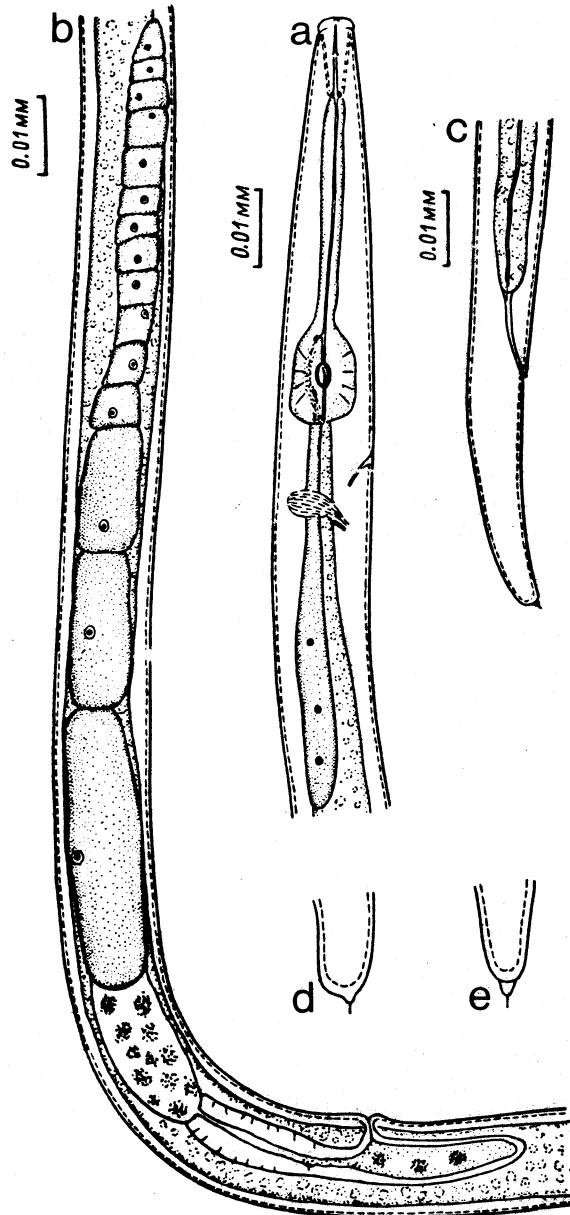
Aphelenchoides spicomucronatus Truskova sp. n. (See Figure).

Holotype (female): L = 0.4182 mm; a = 46.7; b = 4.7; c = 13.7; V = 71.4%.

Paratypes (three females): L = 0.4182 - 0.4428 mm; a = 32.1 - 42.5; b = 4.5 - 4.8; c = 13.7 - 15.3; V = 70.0 - 72.2%.

Description. Diameter of the body: at the base of the cephalic capsule - 5.2 μ m, at the base of the stylet - 6.5 μ m, at the metacorporeal bulb - 11.7 μ m; at the vulva - 14.3 μ m; and at the anus - 7.8 μ m. Small, quite slender nematodes (a = 32.1 - 46.7) of fusiform shape. Cephalic capsule narrow and flat (its height is equal to 1.9 μ m, its width - 5.2 μ m), its contour as if inserted into the contour of the nematode's body; stylet thin, with basal knobs at the base, its length equal to 9 - 11 μ m. The protractors are oriented at an angle from the long axis of the stylet. Duct of dorsal esophageal gland opening into esophageal lumen in the fore part of the metacorporeal bulb. Metacorporeal bulb large, rounded-square, it occupies almost the whole diameter of the nematode's body. Nerve ring located at a distance of one body diameter behind the metacorporeal bulb. Excretory pore situated at middle of distance between bulb and nerve ring. The extraesophageal [sic] glands of the esophagus extend to 1/4 the length of the nematode's body. Lateral field not seen. Sexual system monodelphic: only the anterior genital tract is developed and

functional. Ovary oligopropagatory; its length equals $147\mu\text{m}$; oogonia arranged in a single row. Preuterine gland inconspicuous. Spermatheca oval and filled with sperm. Spermatozooids visible in the cavity of the posterior uterus. Vulva post-equatorial ($V = 70\%$). Posterior uterus short, equal to two body diameters in the area of the vulva. Female tail long, up to four anal body diameters; conical; and with a ventrally situated complex mucro. The last consists of a wide base and an awl-shaped tip (the mucro resembles a steeple).



Aphelenchoides spicomucronatus Truskova sp. n.

A - trophico-sensory section of the body; B - genital tract; C - tail end of the body of the female; D and E - variations of the mucro on the tail of females.

Differential diagnosis. A. spicomucronatus sp. n. belongs to a group of species with a complex mucro. It is closest to A. rarus and A. daubichaensis, observed by Eroshenko (1968) in grain cultures in the Primorye region. The structure of the mucro (wide base and awl-shaped tip) and the presence of a short posterior uterus unite it with these species. The new species is distinguished by the arrangement of the complex mucro on the ventral side of the tail tip (as with A. subtenuis (Cobb, 1926) Steiner & Buhner, 1932), by the location of the excretory pore in front of the nerve ring, and by the flatter and lower cephalic capsule.

Three females of the new species of nematodes were found in the root system of soybean plants of the Salute 216 variety in the Tambovka district of Amur region (experimental field of the All-Russian Scientific Soybean Research Institute). Holotype: preparation No. 22, and paratypes (preparations No. 163, No. 162/2) are kept in the Laboratory of General Helminthology, Biological and Soil Science Institute, Far Eastern Scientific Center, USSR Academy of Sciences.

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S U M M A R Y

Female of the new species of nematodes; *Aphelenchoides spicomucronatus* sp. n., is described from the root system of *Glycine hispida* from the Amur region.