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Micoletzkyia longispicula Huang & Cheng, 2011 (Nematoda: Phanodermatidae) in Turkey: First record outside the type locality

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Fourteen nominal species of *Micoletzkyia* have been described up to date, however three species were considered invalid due to the lack of male specimens and insufficient descriptions (Huang & Cheng 2011; Shimada *et al*. 2012; Fadeeva *et al*. 2014). The eleven valid species of the genus are as follows: *M. elegans* Ditlevsen, 1926 (North Atlantic Ocean), *M. filicaudata* Huang & Cheng, 2011 (South China Sea), *M. kamchatika* Fadeeva, Mordukhovic, Zograf, 2015 (North-Western Pacific), *M. longispicula* Huang & Cheng, 2011 (China Sea), *M. magna* Vitiello, 1970 (Adriatic Sea, Mediterranean Sea, North Atlantic Ocean), *M. mawatarii* Shimada, Kakui, Kajihara, 2012 (Sea of Japan), *M. mucronata* Vitiello, 1970 (Mediterranean Sea), *M. nanhaiensis* Huang & Cheng, 2011 (South China Sea), *M. nudicapitata* Allgen, 1959 (South Georgia-South Atlantic Ocean), *M. parelegans* Allgén, 1954 (North Atlantic Ocean) and *M. sedata* Gagarin, 2009 (Mediterranean Sea). *M. longispicula* is among the species group bearing a tail with a long filiform part, *viz.*, *M. magna*, *M. elegans*, *M. sedata* and *M. mawatari* (Shimada *et al*. 2012). *M. longispicula* Huang and Cheng, 2011 has only recently been described from subtidal muddy sediment (40 m) in Yellow Sea, China.

Figure 1. Sampling site of *Micoletzkyia longispicula.*

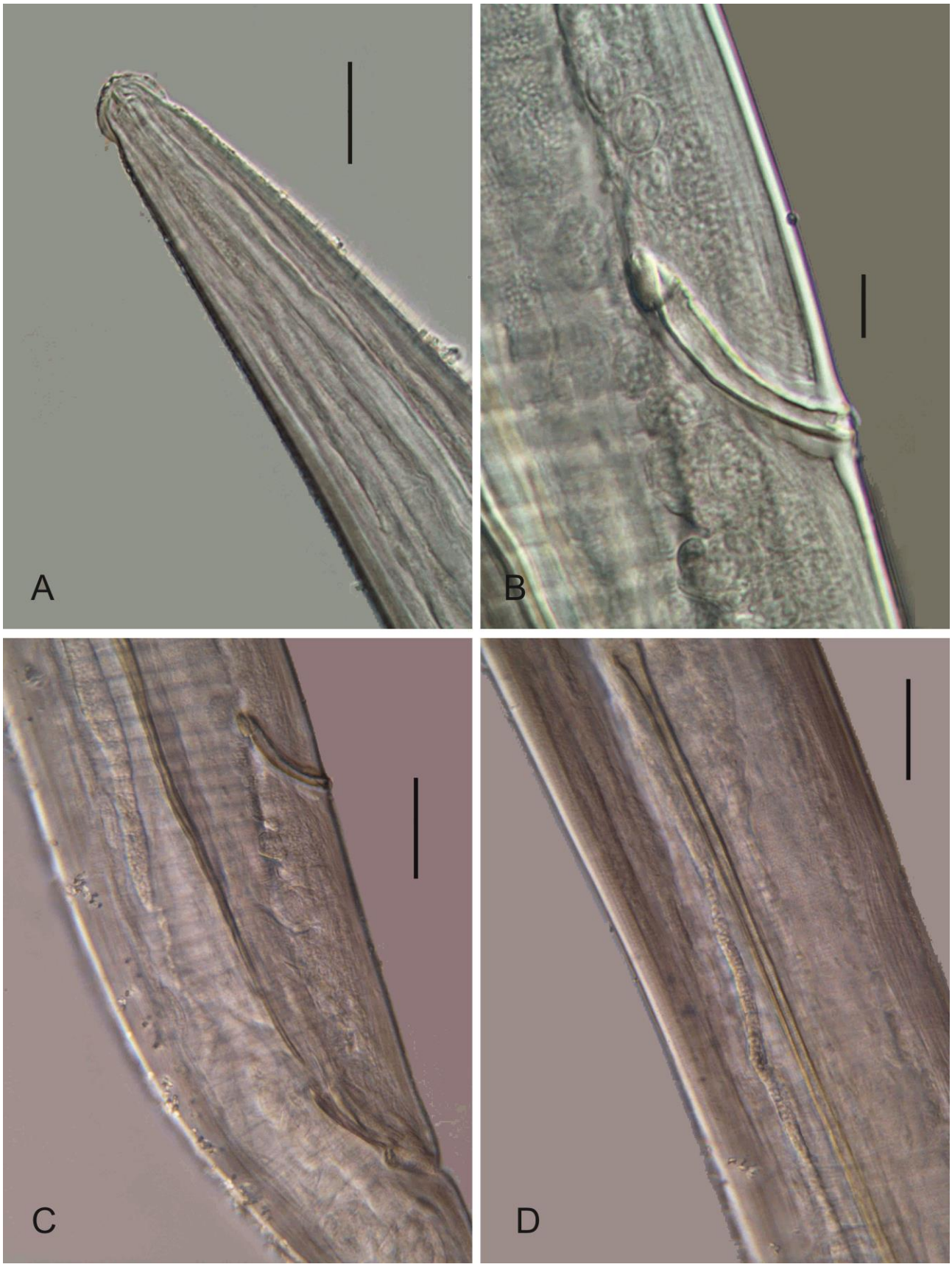

Figure 2. *Micoletzkyia longispicula*, DIC images **A**. Lateral view of male anterior end **B**. Precloacal supplement **C**. Lateral view of cloacal region showing gubernaculum and precloacal supplement **D**. Anterior part of spicule. Scale bars: A. 20 µm, B. 10 µm, C and D. 100 µm.

A male specimen of *M. longispicula* was found in a formalin fixed (10% seawater-formalin solution) soft-bottom macrobenthos sample collected by Van Veen Grab (0.1 m^2) from Mersin Bay in December 2015, at a depth of 85.1 m (Figure 1). Specimen mounted on glycerol containing glass slide (Seinhorst, 1959) was examined using a NIKON NiU research microscope equipped with DIC (Differential Interference Contrast) attachment. Photographs were obtained through the imaging software (NIS elements) of the microscope. Slide of the specimen was deposited at the museum of Faculty of Fisheries, Sinop University, Turkey (SNUFF/NEM).

Order ENOPLIDA Filipjev, 1929

Family PHANODERMATIDAE Filipjev, 1927

Subfamily Crenopharynginae Platonova, 1976

Genus *Micoletzkyia* Ditlevsen, 1926

Micoletzkyia longispicula Huang & Cheng, 2011
(Figures 2 & 3)

Material examined. 1 male, Turkey, Mersin Bay, coordinates 36.113°N, 33.562°S, December 2015. Slide number SNUFF/NEM-MC16P1.

Measurements. Total body length = 12.6 mm, Maximum body diameter = 132 µm, Pharynx = 698 µm, Distance from anterior to nerve ring = 328 µm, Anal body diameter (abd) = 65.5 µm, Spicule length along the arc= 562 µm (6.8 abd), Precloacal supplement = 45 µm, Distance between supplement and spicule = 149.6 µm, Tail length = 434 µm (6.6 abd, filiform part 70% of total tail length). De Man ratios: a = 95.5, b = 18.05, c = 29, c' = 6.6

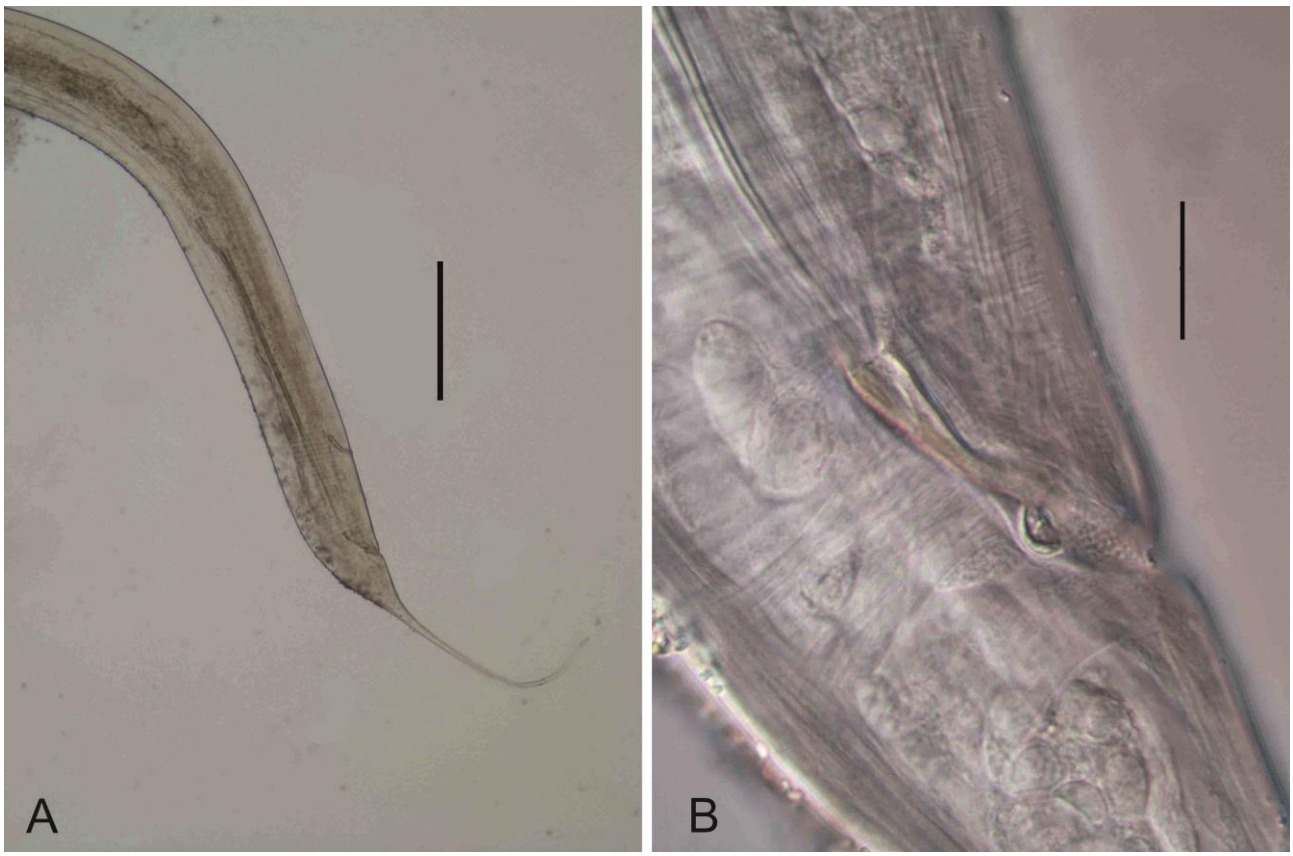

Figure 3. *Micoletzkyia longispicula* **A**. Posterior region showing the whole spicule and the filiform part of the tail **B**. Gubernaculum (DIC). Scale bars: A. 200 µm, B. 20 µm.

Remarks. The total body length of this specimen is larger from the holotype and this is reflected in De Man ratios *a*, *b*, and *c* which may be attributed to the different geographical location of the species or the maturity stage. However, the following characters of the specimen are very similar to the original description: length of pharynx, location of nerve ring, De Man ratio c', spicule shape and its length in terms of anal body diameter (6.8 abd), the gubernaculum without apophysis, the shape and length of the precloacal supplement and its distance to cloaca (2.3 abd), tail shape and length.

Micoletzkyia longispicula is identified from the soft bottom macrobenthos samples collected on the Mediterranean coast of Turkey. The species is characterized by its long spicule, gubernaculum without apophysis and a proximally cephalated precloacal supplement. This represents the first report of the species out of its type locality (Yellow Sea, China) from where only a single male specimen was found and described (Huang and Cheng, 2011). Reports of free-living marine nematodes are limited in Turkey and recent studies are mainly from the Black Sea coast (Ürkmez *et al*. 2015; Ürkmez & Brennan 2013a, b; Ürkmez *et al*. 2011). This record also stands for the first report of the genus from the coasts of Turkey.

References

Fadeeva, N., Mordukhovich, V. & Zograf, J. (2014) New deep-sea large free-living nematodes from macrobenthos in the Kuril-Kamchatka trench (the North-Western Pacific). *Deep-Sea Research II*, 111, 95–103.

Huang, Y. & Cheng, B. (2011) Three new free-living marine nematode species of the genus *Micoletzkyia* (Phanodermatidae) from China Sea. *Journal of the Marine Biological Association of the United Kingdom*, 92, 941–945.

Seinhorst, J. W. (1959) A rapid method for the transfer of nematodes from fixative to anhydrous glycerine. *Nematologica*, 4, 67–69.

Shimada, D., Kakui, K. & Kajihara, H. (2012) A New Species of Deep-sea Nematode, *Micoletzkyia mawatarii* sp. nov. (Nematoda: Enoplida: Phanodermatidae) from Northern Japan. *Species Diversity*, 17, 221–226.

Ürkmez, D., Brennan, M.L., Sezgin, M. & Bat, L. (2015) A brief look at the Free-living Nematoda of the oxic/anoxic interface with a new genus record (*Trefusia*) to the Black Sea. *Oceanological and Hydrobiological Studies*, 44(4), 539-551. DOI: 10.1515/ohs-2015-0051.

Ürkmez, D. & Brennan, M.L. (2013a) A new species of *Halaphanolaimus* (Nematoda: Leptolaimidae) from the southern Black Sea (Turkey) with a modified key for species identification. *Zootaxa*. 3691 (2), 220–228. DOI: 10.11646/zootaxa.3691.2.2.0.

Ürkmez, D. & Brennan, M.L. (2013b) First record of the genus *Trefusia* and the species *Terschellingia distalamphida* in the Black Sea: abundant species at the oxic/anoxic interface. *In: Proceedings of the 4th Black Sea Scientific Conference, BSGES-2013, "Challenges Towards Good Environmental Status",*Constanta-Romania, p.116.

Ürkmez, D., Sergeeva, N.G. & Sezgin, M. (2011) Seasonal changes of nematodes from Sinop coasts of the Black Sea. *In: Proceedings of the Sixth International Conference "Environmental Micropaleontology, Microbiology and Meiobenthology"*, Moscow, pp. 279–282.