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Prodorylaimus filamentus sp. n. and *Eutobrilus longicaudatoides* sp. n. (Nematoda) from Lake Baikal, Russia

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Abstract

Two nematode species found in Lake Baikal, Russia are described. *Prodorylaimus filamentus* **sp. n.** is morphologically close to *P. longicaudatoides* Altherr, 1968 and *P. kralli* Tsalolikhin, 1975. The new species can be separated from *P. longicaudatoides* by the longer body (*L* = 4.89–6.06 mm *versus L* = 2.0–3.5 mm), relatively longer tail (*c'* = 18.4–25.0 *versus c'* = 14–18), longer odontostyle (60–65 µm long *versus* 32–37 µm long), presence of double and wide guiding ring and longer spicules (89–90 µm long *versus* 70–78 µm long). It can also be separated from *P. kralli* by the longer tail (*c* = 4.3–6.0, *c'* = 18.4–25.0 *versus c* = 7.0–8.0, *c'* = 11–16), lower "vulva-anus to tail length" ratio (1.6–2.2 *versus* 2.5–3.0), shorter odontostyle (60–65 µm long *versus* 75–80 µm long). *Eutobrilus longicaudatoides* **sp. n.** is closely related to *E. anguiculus* Tsalolikhin, 1977, but is clearly distinct in the shorter outer labial setae (9–10 µm long or 45–52% of the labial region diameter *versus* 15–20 µm long or 50–60 % of the labial region diameter), longer tail (males, *c* = 5.3–5.5, *c'* = 11.4–11.8, females, *c* = 4.5–6.3, *c'* = 15.1–16.7, *versus* males, *c* = 7.4–10.4, *c'* = 8–9, females, *c* = 5.0–7.7, *c'* = 10–12), smaller number of supplements (5 *versus* 6) and shorter spicules (47–53 µm long *versus* 66–68 µm long).

Key words: descriptions, *Eutobrilus longicaudatoides* **sp. n.**, free-living freshwater nematodes, Lake Baikal, new species, *Prodorylaimus filamentus* **sp. n.**, taxonomy

Introduction

Lake Baikal in Russia is the deepest lake on Earth and is a unique freshwater body inhabited by endemic fauna. Recently, 73 nematode species representing 30 genera have been reported from this lake (Gagarin & Naumova, 2010 a, b, c, d, 2011 a, b, c; Shoshin, 2010; Shoshin & Tsalolikhin, 2001; Tsalolikhin, 1980, 1983). Ten species of the genus *Eutobrilus* Tsalolikhin, 1981 (including the new species described below) have been described from Lake Baikal, most of them found in the littoral zone (Shoshin & Tsalolikhin, 2001; Gagarin & Naumova, 2011b). Moreover, there are four species of the genus *Prodorylaimus* Andrássy, 1959 (*P. kralli* Tsalolikhin, 1975, *P. eliavai* Tsalolikhin, 1977, *P. kukuy* Tsalolikhin, 1977, *P. filamentus* **sp. n.**) inhabiting the lake.

Material and methods

Nematodes were collected in Lake Baikal in two localities: Academical Ridge, on 3 October 2009 (at 389 m depth), and a mud volcano "Malen'kiy" (near settlement Bolshoe Goloustnoe), on 20 June 2010 (at 1368 m depth). Both samples were collected by the bottom-dredge "Ocean". The samples contained numerous free-living nematodes, including the two species described herein. Nematodes were fixed by standard methods, and mounted in glycerin-jelly on permanent slides (Tsalolikhin, 1980). All observations were made using an Olympus CX-21 light microscope. Photographs were taken using an Axiovert 200 ZEISS light microscope fitted with a Pixera Penguin 600CL camera, located in the General Instrumental Center of the Limnological Institute, Siberian Branch of the Russian Academy of Sciences.

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