Accepted Manuscript

Title: Morphology and morphogenesis of a new soil urostylid ciliate, *Australothrix xianiensis* nov. spec. (Ciliophora, Hypotrichia)

Authors: Zhao Lyu, Jingbao Li, Shuyan Qi, Yuhe Yu, Chen

Shao

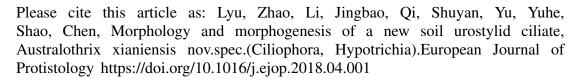
PII: S0932-4739(17)30188-8

DOI: https://doi.org/10.1016/j.ejop.2018.04.001

Reference: EJOP 25565

To appear in:

Received date: 28-11-2017 Revised date: 29-3-2018 Accepted date: 1-4-2018



This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



European Journal of Protistology

Morphology and morphogenesis of a new soil urostylid ciliate, *Australothrix xianiensis* nov. spec. (Ciliophora, Hypotrichia)

Zhao Lyu^a, Jingbao Li^b, Shuyan Qi^a, Yuhe Yu^c, Chen Shao^{a,*}

^a The Key Laboratory of Biomedical Information Engineering, Ministry of Education, School of Life Science and Technology, Xi'an Jiaotong University, Xi'an 710049, China

^b Key Laboratory for Space Bioscience and Biotechnology, Institute of Special Environmental Biophysics, School of Life Sciences, Northwestern Polytechnical University, Youyi Xilu 127, 710072, Xi'an, Shaanxi, China

^c Key Laboratory of Aquatic Biodiversity and Conservation of Chinese Academy of Sciences, Institute of Hydrobiology, Chinese Academy of Sciences, Wuhan 430072, China

*Corresponding author. Tel.: +86 29 8266 8463 Ext 808.

E-mail addresses: shaochen@xjtu.edu.cn (C. Shao).

Abstract

The living morphology, infraciliature and morphogenetic events of a new soil urostylid ciliate, Australothrix xianiensis nov. spec., collected from Chanba National Wetland Park in Xi'an, China, were studied in vivo and after protargol preparation. Australothrix xianiensis nov. spec. is characterized as follows: about 190-240 × 40-60 µm in life; body pisciform and dark; cortical granules arranged in longitudinal rows on both sides, colourless, rod-shaped and about 2×1 µm in size; single contractile vacuole slightly ahead of mid-body with two long collecting canals; macronuclear nodules scattered throughout cytoplasm; adoral zone occupies about 20% of body length, composed of about 32 membranelles; three frontal cirri and one buccal cirrus; two to four midventral pairs and four or five midventral rows, one left and two right marginal rows; four or five dorsal kineties; four or five caudal cirri. The main features of divisional morphogenesis are: 1) each posterior streak generates a midventral row together with the midventral pair; 2) the old adoral zone of membranelles is retained with the exception of the posterior part, which is renewed in situ; the undulating membranes are completely renewed; 3) parental cirri do not contribute to the construction of the oral primordium in the opisthe in very early dividers; 4) two sets of frontoventral cirral anlagen are formed.

Key words: Australothrix xianiensis nov. spec.; Morphology; Morphogenesis; New species; Urostylida

Download English Version:

https://daneshyari.com/en/article/8382432

Download Persian Version:

https://daneshyari.com/article/8382432

<u>Daneshyari.com</u>