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

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Abstract

The living morphology, infraciliature and morphogenetic events of a new soil urostyleid 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; Urostyleida

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