

Research Article

Morphological description and molecular DNA barcoding of a new record of earthworm *Travoscolides chengannures* from Odisha, India

**Shyamasree Ghosh^{1*}, Rashmi Bhattacharjee², Souvik De², Dhriti Banerjee²,
Nurul Hasan³, Chandrakanta Mandal³**

¹*School of Biological Sciences, National Institute of Science Education and Research (NISER), Bhubaneswar,
An OCC of Homi Bhabha National Institute, Bhubaneswar, Odisha, 752050, India*

²*Diptera Section, Zoological Survey of India, Ministry of Environment, forest and climate change,
M- Block, New Alipore, Kolkata 700053, India*

³*Zoological Survey of India, FPS Building, Indian Museum, Kolkata-700016, India*

**Corresponding Author's E-mail: shyamasree_b@yahoo.com*

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ABSTRACT

Biodiversity finds importance in ecosystem functions and soil biota finds particular significance in nutrient and organic matter recycling. Earthworms are known to play a major role in contributing to soil fertility and participate in diverse ecosystem functions and services. Thus study of their biodiversity and conservation finds importance. In the present study, earthworm specimens of *Travoscolides chengannures* (*T. chengannures*) were collected from Bhubaneswar, Odisha, India for morphological species detection and further molecular confirmation to resolve complex from closely related species using cytochrome oxidase gene (COI gene) as fewer gene sequences available for this species. This species from the State of Odisha, India, is the new record. For the amplification of COI gene, universal primers LCO1490 and HCO2198 were used. Our morphological study revealed new records of *T. chengannures* and COI sequences (accession numbers: OM536159, OM536160 and OM536161) showed close affinity among each other, but formed a separate cluster with other strains of this species. This confirms the prevalence of species complex in this species which needs more efforts to resolve it.

Key words: *Travoscolides chengannures*, cytochrome oxidase gene (COI gene), Odisha

