



Fine morphology of the cuticle surface of *Chordodes anthophoru* and reinterpretation of *C. aquaeductus*, *C. ferganensis* and *C. oscillatus* (Gordiida Nematomorpha)

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Abstract

We reinvestigate four species of the genus *Chordodes* from Central Asia and one from Georgia (Transcaucasian part of former USSR) in order to certify the taxonomic descriptions and verify the species status. By scanning electron microscopy, we demonstrate characteristic cuticular patterns for *Chordodes anthophoru*. The other three species, *C. aquaeductus*, *C. ferganensis* and *C. oscillatus* are synonymized with *C. anthophoru* because no differences were detected.

Key words: *Chordodes* cuticle surface, Central Asia, Georgia, Gordiida.

Introduction

Among the genera of horsehair worms (Nematomorpha) *Chordodes* is characterized by having an undivided male posterior end and a cuticle surface formed by different areolar types and up to six different types have been described to occur in one species (Schmidt-Rhaesa 2002, de Villalobos *et al.* 2004a). A specialized type of areole with a “crown” of apical filaments is called crowned areoles and is characteristic for the genus *Chordodes*. According to the species, crowned areoles may appear isolated, in pairs or in clusters with another areolar type.

The genus *Chordodes* is represented by about 90 species and is the largest genus in Gordiida (Nematomorpha). Most of these species are distributed in tropical and subtropical regions. Nevertheless few species of *Chordodes* were cited outside this range (see Montgomery 1898, Kirjanova 1950, 1953, Kirjanova & Spiridonov 1989). The classification is especially complicated in the genus *Chordodes* due to the fact that most of the original descriptions were based on light microscopy, a technique which fails to give adequate diagnostic characters, leading to doubts about the real existence of some species. Scanning electron microscope (SEM) has become a standard method in the study of nematomorphs because fine structural details can be documented optimally. In this investigation we analyzed by SEM the holotypes of three species of *Chordodes* from Central Asia and one from Georgia (Transcaucasian part of former USSR).

Material and Methods

We investigated midbody cuticular sections of the holotypes of *Chordodes anthophoru*, *C. aquaeductus*, *C. ferganensis*, *C. oscillatus* and one specimen labelled as *C. moutoni* and the female posterior end of *Chordodes anthophoru* deposited in the Zoological Institute of the Russian Academy of Science (ZIS). Taking into account that Kirjanova (1950) described 18 males and 3 females specimens (type series) of *Chordodes antho-*