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Aquatic oligochaetes (Annelida: Clitellata) of the Czech Republic: check-list, new records, and ecological remarks

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Abstract

This study contributes to the knowledge of central European clitellates by creating a check-list of Oligochaeta (sensu oligochaetous Clitellata; Erséus 2005) of the Czech Republic, exclusive of taxa in the family Enchytraeidae. In total, 95 aquatic oligochaete species representing 43 genera are reported for the Czech Republic. Rare species are highlighted and associated with the categories for threatened species as outlined by the International Union for the Conservation of Nature. The first records of *Trichodrilus strandi* Hrabě, 1936, *Pristina jenkinae* (Stephenson, 1931), *Pristina osborni* (Walton, 1906), *Rhyacodrilus subterraneus* Hrabě, 1963, *Aulodrilus limnobius* Bretscher, 1899, and *Aulodrilus pigueti* Kowalewski, 1914 in the Czech Republic are presented. Their ecology, morphology, and distribution are discussed.

Key words: Oligochaeta, *Trichodrilus strandi*, *Pristina jenkinae*, *Pristina osborni*, *Rhyacodrilus subterraneus*, *Aulodrilus limnobius*, *Aulodrilus pigueti*, habitat preferences, first records, red list, alien species

Introduction

Aquatic Oligochaeta (sensu oligochaetous Clitellata; Erséus 2005), are typical inhabitants of bottom sediments, forming communities whose species composition is a relevant information source for water quality assessment (Brinkhurst & Cook 1974; Chapman 2001; Verdonschot 2006). Hence, reliable species identification and a complete knowledge of their ecology are essential. Since the turn of the 20th century many phylogenetic changes and taxonomic shifts in Oligochaeta have been made. Therefore, the monographs published by renowned Czech oligochaetologists in the 20th century have become insufficient for valid identification. The list of oligochaete species of the Czech Republic is scattered among old monographs, mostly written in Czech, and recent papers that have documented distributional records for particular species. Furthermore, the territory of the present Czech Republic was previously a part of several different countries, so its records of oligochaete fauna formed a subset of data published on larger territories.

Taxonomic surveys on aquatic oligochaetes have a long tradition in the Czech Republic. Many world-famous taxonomists, whose names have been assigned by patronymy to oligochaete species and genera, came from the Czech territory. At the end of the 19th century, when the Czech Republic was a part of Austria-Hungary, František Vejdovský (1849–1939) and Antonín Štolc (1863–1917) published numerous works dealing with the classifications and morphology of Oligochaeta (e.g. Vejdovský 1876, 1883, 1884, 1892; Štolc 1886, 1888). At the beginning of the 20th century, Alois Mrázek (1868–1923) and Lev Černosvitov (1902–1946, born in Russia) continued their works with studies on anatomy and reproduction (e.g. Mrázek 1913a, 1913b), and morphology and faunistics (e.g. Černosvitov 1928, 1930, 1935). Fundamental research on this group was made by Sergěj Hrabě (1899–1984), who was born in Russia where he lived with his Czech parents until the October Revolution. After the revolution, during the civil war and under difficult circumstances, he moved back to what was then Czechoslovakia. He published an admirable volume of almost 100 scientific papers and monographs, in which he (and other authors), among others, described 11 new species to science

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