



## Suctorian ciliates (Ciliophora, Suctorea) as epibionts of stream-dwelling aquatic beetles (Coleoptera) and water mites (Acari: Hydrachnidia) in the southwestern Palaeartic region

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### Abstract

Based on original data from recent research, numerous new records of the suctorian species living as epibionts on stream-dwelling aquatic beetles (Coleoptera) and water mites (Acari, Hydrachnidia) in the southwestern Palaeartic area are given. The following species are reported for the first time for the national faunas: *Setodiscophrya deplanata* (Matthes, 1954) (Bosnia and Hercegovina, Montenegro, Serbia, Bulgaria, Turkey), *Discophrya helmidis* Matthes, 1954 (Montenegro, Turkey), *Elatodiscophrya hochi* (Matthes, 1954) (Bosnia and Hercegovina, Turkey), *Periacineta buckei* (Kent, 1881) (Montenegro, Greece), *Discophrya lichtensteinii* (Claparede & Lachmann, 1859) (Turkey, Iran). The characteristics of the suctorians as epibionts of stream-dwelling arthropods are briefly outlined.

**Key words:** aquatic beetles, water mites, suctorian ciliates, epibiont, lotic ecosystems

### Introduction

Suctorians (class Suctorea) are a peculiar group of carnivorous or parasitic ciliate (Dovgal 2002), which are poorly known in respect of distribution and species composition living as epibionts on stream-dwelling animals. Many invertebrate groups (i.e., Crustacea, Coleoptera, Acari, etc) living in lotic freshwaters include species that are hosts for epibiotic suctorian ciliates. However, there is considerably lack on the information on suctorian ciliates as epibionts of aquatic beetles and water mites inhabiting lotic ecosystems.

Bameul (1991) reported *Periacineta koepelli* (Matthes, 1954) and *Setodiscophrya deplanata* (Matthes, 1954) as epibionts on aquatic beetles of the family Hydraenidae from streams in Spain and France, respectively. Dovgal (1993) recorded, from the Transcarpathian region in the Ukraine, the following suctorian species as epibionts on aquatic beetles: *Periacineta molesta* (Matthes, 1954) on *Hydroporus* sp. (Dytiscidae), *Discophrya lichtensteinii* (Claparede et Lachmann, 1859) (under synonymic name *Discophrya cybistericola* (Jankowski, 1981) on *Agabus* sp., (Dytiscidae), *Discophrya helmidis* Matthes, 1954 on *Hydraena* sp. (Hydraenidae) and on *Hydroporus* sp. (Dytiscidae), *Discophrya ferrumequinum* (Ehrenberg, 1840) (under synonymic name *Discophrya speciosa* Lachmann, 1859) on *Agabus* sp. (Dytiscidae) and on *Hydrobius fuscipes* (Linnaeus, 1758) (Hydrophilidae), *Misacineta cybistri* (Collin, 1912) on *Platambus maculatus* Linnaeus, 1758 (Dytiscidae), and on *Ilybius fuliginosus* Gschwendtner, 1934 (Dytiscidae).

There are not many records of suctorians living as epibionts of water mites from the lotic environment. Recently, Dovgal & Pešić (2007) described a new suctorian species *Acineta persiensis* Dovgal & Pešić, 2007 on the water mites *Protzia sepaosariani* and *P. invalvaris* (Acari, Hydrachnidia, Hydryphantidae) from Iran and Montenegro, respectively.

During the survey, conducted by the second author (VP), to explore the diversity of the water mite fauna of the Balkan Peninsula, Turkey and Iran, we observed the presence of suctorian ciliates on many representatives of the