



<http://dx.doi.org/10.11646/zootaxa.3619.3.1>

<http://zoobank.org/urn:lsid:zoobank.org:pub:B5FD216D-77C7-4354-9DE7-176C75752EED>

Morphological analysis of the oribatid mite species *Scutovertex pannonicus* Schuster and description of its juvenile stages (Acari: Oribatida: Scutoverticidae)

ELKE MCCULLOUGH & GÜNTHER KRISPER

Institute of Zoology, Karl-Franzens University, Universitätsplatz 2, A- 8010 Graz, Austria. E-mail: elke99100@yahoo.de

Abstract

This paper provides a detailed redescription of the adult as well as the first morphological description of all juvenile instars (inclusive egg, prelarva and earlier larval stages) of *Scutovertex pannonicus*. The adults are characterized by their relatively large size (692–892 µm), their well developed sharply bordered foveae which are regularly distributed on the whole notogaster, except in the central field and the posterior notogastral brush-like setae ps_1 , h_1 - h_3 . The exochorion of the eggs shows the typical structures for the genus *Scutovertex* like ‘mushrooms’ and granules with the species-specific expression of the ‘mushrooms’ and its substructures. The exochorion is covered with an extra thin layer which is typical for this species. The larva and the nymphs can be distinguished from those of *S. sculptus* and *S. minutus* mainly by their lateral setae l' and l'' on tibia I which are strongly serrated and slightly broadened.

Key words: egg, prelarva, biology, development, distribution, taxonomy

Introduction

The oribatid mite species *Scutovertex pannonicus* Schuster, 1958 belongs to the family Scutoverticidae. This species was found for the first time in 1958 in the area of the National Park Neusiedlersee–Seewinkel, the eastern, Pannonian part of Burgenland which is the only place in Austria where this strongly salt tolerant (halophilous) species occurs together with the strong halophyte *Lepidium cartilagineum*. Some individuals of *S. pannonicus* were sometimes even found on the salt influenced raw areas (Schuster 1959). In the family Scutoverticidae only few species show a distribution in saline habitats, like for example *S. arenocolus* Pflingstl and Schäffer, 2009 from the German Baltic coast or *S. pilosetosus* Poldermann, 1977 from the North Sea coast. The scope of this work is to complete the description of morphological characters of the adults of *S. pannonicus* (e.g. details of legs and subcapitulum) as well as to describe the egg and all juvenile stages of this species.

Material and methods

Mite collection. Samples were taken from the soil surface and up to a depth of two to five centimetres, and were left for extraction in Berlese–Tullgren funnels for five to seven days. The samples were collected in the zone around the soda pools with more or less salty soil. Collection sites: a) Lake Illmitzer Zicklacke: south / west shore with the soda pool only a few meters away; salt steppe area; with *Artemisia sáttonicum*, *Aster tripolium* ssp. *pannonicum*, moss between bulked grass, sand; N 47 45,914', E 16 46,885'; 18/09/2006, 13/10/2006, 27/03/2007, 30/09/2008. b) Lake Oberer Stinker (next to the locus typicus): to the west of the trail; small elevation with vegetation in the middle of a soda pool; with *Artemisia sáttonicum*, *Lepidium cartilagineum* and moss very close together, sand; N 47 49,127', E 16 47,495'; 18/09/2006, 13/10/2006, 27/03/2007, 03/11/2007, 30/09/2008. c) Lake Lange Lacke: to the west of the cattle watering place with the soda pool 20 to 30 meters further away; salt steppe area; with *Artemisia sáttonicum*, moss, grass; N 47 45,468', E 16 52,149'; 18/09/2006, 13/10/2006, 27/03/2007.