Zootaxa 2558: 33–47 (2010)
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

Zerconella Willmann, 1953, a forgotten group of Zerconidae (Acari: Mesostigmata)

ZSOLT UJVÁRI
Systematic Zoology Research Group of Hungarian Academy of Sciences, Hungarian Natural History Museum, H-1088 Budapest, Baross u. 13. Hungary. E-mail: zs_ujvari@yahoo.com

Abstract

A short review of the characters used for generic determination in the family Zerconidae is presented. The subgenus *Zercon* (*Zerconella*) Willmann, 1953 is elevated to full generic rank on the basis of the shape of peritreme, peritrematal setae, and epistome, and the presence of post-genital sclerites. The genus *Metazercon* Błaszak, 1975 is considered to be a subgenus of *Zerconella*, and *Zerconella* is divided into the subgenera *Zerconella* (*Zerconella*) and *Zerconella* (*Metazercon*). The following new combinations are listed: *Zerconella* (*Metazercon*) *athiasae* (Błaszak, 1975) comb. nov., *Zerconella* (*Metazercon*) *mahunkai* (Halašková, 1979) comb. nov., *Zerconella* (*Metazercon*) *rafalskii* (Błaszak, Kaczmarek & Lee, 1997) comb. nov. A new species, *Zerconella* (*Metazercon*) *lobata* **sp. nov.**, is described from alpine broad-leaved forests in Taiwan. Diagnoses, figures and a key to species of *Zerconella* are provided.

Key words: Zerconidae, *Zerconella*, *Metazercon*, taxonomy, new species

Introduction

During investigation of the mite fauna of the Eastern Alps, Willmann (1953) found an unusual species belonging into the family Zerconidae Canestrini, 1891. It closely resembled the known species of *Zercon* C. L. Koch, 1836, by having two different peritrematal setae and a posteriorly truncated peritrematal shield, but presented such a different dorsal aspect and body size that Willmann established the new subgenus *Zerconella* Willmann, 1953 with type species *Zercon* (*Zerconella*) *leitnerae* Willmann, 1953. The main defining character of *Zerconella* was the dorsally-inserted extremely long peritrematal setae r3. Unfortunately, details of important ventral characters were lacking from the original description, and this taxon has not been studied for over 50 years. Recently Ujvári (2009) presented a more detailed description of a male of this species collected in Slovenia, including ventral characters, and illustrated the ventral idiosoma of both sexes.

In the last 50 years profound changes have occured in the systematics of Zerconidae. The first approach focused only on peritrematal characters. In the first summarising work of Sellnick (1958), three genera of the family were distinguished on the basis of the shape of the peritrematal shields and the shape and number of peritrematal setae. Besides these main features, Evans (1957) also considered the sloping anterior side of the podonotum. This character, however, has not been widely adopted.

In the next decade Halašková (1963) listed several new characters useful for distinction between genera, such as the width of the slit between the peritrematal and podonotal shields behind the second peritrematal setae, and the relative positions of the peritrematal setae. She considered other characters in recognising the genus *Mixozercon* Halašková, 1963, using the sloping anterior edge of the podonotum from Evans, the cuticular surface surrounding the second peritrematal setae (smooth or with cuticular knobs), the shape of the marginal serration, and the appearance of marginal setae. However the last three of these characters seem to be more useful at a specific rank. A few years later another important character was discovered by the same author. The description of the genus *Amerozercon* Halašková, 1969 used the connection between the peritrematal, ventri-anal and dorsal shields (Halašková 1969a). In the male of *Amerozercon* these shields are

Accepted by B. Halliday: 28 Jun. 2010; published: 4 Aug. 2010