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***Charletonia cameroonensis* Haitlinger & Kekeunou sp. nov. and the first record of *C. justynae* Haitlinger, 1987 (Acari: Erythraeidae) from Cameroon with redescription of the species**

RYSZARD HAITLINGER¹, SÉVILOR KEKEUNOU² & DARIUSZ ŁUPICKI³

¹Institute of Biology, Department of Systematics and Ecology of Invertebrates, Wrocław University of Environmental and Life Sciences, Koźuchowska 5B, 51-631 Wrocław, Poland. E-mail: ryszard.haitlinger@up.wroc.pl

²Laboratory of Zoology, Faculty of Sciences, University of Yaounde I, Cameroon. E-mail: skekeunou@gmail.com

³Museum of Natural History of the Faculty of Biology and Animal Science, Wrocław University of Environmental and Life Sciences, Chelmońskiego 38D, 51-631 Wrocław, Poland. E-mail: dariusz.lupicki@up.wroc.pl

Abstract

Charletonia cameroonensis Haitlinger & Kekeunou **sp. nov.** is described and illustrated from larvae obtained from *Zonocerus variegatus* (Linnaeus, 1758) (Orthoptera: Pyrgomorphidae) in Cameroon. For the first time *C. justynae* Haitlinger, 1987 is reported from Cameroon and from *Z. variegatus* and *Eupezus rufipes* Quedenfeldt, 1885 (Coleoptera: Tenebrionidae). This paper also presents new morphological data and a range of metric and meristic data for *C. justynae*. Distribution and hosts of *Charletonia* found on Orthoptera are given.

Key words: mites, Prostigmata, new species, new hosts, new records, Cameroon

Introduction

Charletonia Oudemans, 1910 is a large genus widely spread in the world. From Africa were known hitherto 24 species based on larvae or adults and larvae: *C. aerolata* (Trägårdh, 1908), *C. kibonotensis* (Trägårdh, 1908), *C. brunni* (Oudemans, 1910), *C. braunsi* (Oudemans, 1910), *C. swaziana* (Lawrence, 1940), *C. lawrencei* Southcott, 1966, *C. naivashae* Southcott, 1991, *C. enghoffi* Southcott, 1991, *C. cooremani* (Feider, 1977), *C. agatae* Haitlinger, 1987, *C. alarobiensis* Haitlinger, 1987, *C. arlettae* Haitlinger, 1987, *C. dorotae* Haitlinger, 1987, *C. edytae* Haitlinger, 1987, *C. iwonae* Haitlinger, 1987, *C. justynae* Haitlinger, 1987, *C. tatianna* Haitlinger, 1987, *C. beninensis* Haitlinger, 2007, *C. ghanensis* Haitlinger, 2007, *C. grandpopensis* Haitlinger, 2007, *C. milenae* Haitlinger, 2007, *C. adellae* Haitlinger, 2007, *C. rajmundi* Haitlinger, 2007 and *C. ewelinae* Haitlinger, 2007 (Trägårdh 1908; Oudemans 1910; Southcott 1966, 1991; Feider 1977; Haitlinger 1987, 2007a, b). Moreover *C. jaegerskioeldi* (Trägårdh, 1904) was found in Egypt but from Sinai (Asia Minor) (Trägårdh 1904). It is a very low number of *Charletonia* species known from this huge continent. *Charletonia* species are recorded from only 15 of 56 African countries: Benin, Egypt, Ethiopia, Ghana, Guinea, Guinea-Bissau, Kenya, Madagascar, Mozambique, Nigeria, Republic of South Africa, Saint Helene, Sierra Leone, Swaziland and Tanzania; in comparison 19 species are known from Europe which is not a very large continent (Beron 2008). In this paper we describe *Charletonia cameroonensis* Haitlinger & Kekeunou **sp. nov.** from Cameroon and present the first record of *C. justynae* from Cameroon and redescribe this species. To date, no information on erythraeid mites from Cameroon were known. *Charletonia cameroonensis* Haitlinger & Kekeunou **sp. nov.** and *C. justynae* were obtained from *Zonocerus variegatus* (Linnaeus) (Orthoptera: Pyrgomorphidae). The family Pyrgomorphidae contains 143 genera with about 455 species (Ingrisch 2011). Five species of erythraeid mites are recorded from three pyrgomorphid species: *Leptus* (*Leptus*) *chrotogonae* Chinniah & Mohanasundaram 1998 obtained from *Chrotogonus* sp., *Charletonia brunni* (Oudemans, 1910) from undetermined Pyrgomorphidae, *C. keyi* Southcott, 1983 from *Greyacris profundesulcata* (Carl), *C. milenae* and *C. rajmundi* both from *Z. variegatus* (Oudemans 1910; Southcott 1983; Chinniah & Mohanasundaram 1998; Haitlinger 2007a; Beron 2008).

were synonymized with *C. volzi* (Oudemans, 1910) and *C. keralicus* with *C. lankensis* Southcott, 1988 by Haitlinger (2007c).

Charletonia cameroonensis Haitlinger & Kekeunou **sp. nov.** is probably a rare species, as only four specimens were collected from *Z. variegatus*. All these specimens were fully engorged, so *Z. variegatus* should be regarded as the true host of *C. cameroonensis*. Species of Pyrgomorphidae are rarely infested by erythraeid mites. Only *Greyacris profundesulcata* (Carl), *Monistra discrepans* (Walker) and *Z. variegatus* were known as hosts for *Charletonia* species (Table 3). Previously only *C. milenae* and *C. rajmundi* were collected from *Z. variegatus*. Both species probably have *Z. variegatus* as the main host. Now, two further species are associated with this host: *C. cameroonensis* Haitlinger & Kekeunou **sp. nov.** and *C. justynae*. *Charletonia justynae* was described based on specimens collected from undetermined Orthoptera (not Pyrgomorphidae). In Cameroon many specimens of *C. justynae* were obtained from *Z. variegatus*. This species was also found on *E. rufipes*. It is the first species found on this host and the second species of *Charletonia* found on Tenebrionidae.

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