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The Old-World genus *Ceratothripoides* (Thysanoptera: Thripidae) with a new genus for related New-World species

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Abstract

A key is provided to five Old World species that comprise the genus *Ceratothripoides* Bagnall, and the species *C. revelatus* (Priesner) is recalled from synonymy with *C. brunneus* Bagnall. Five New World species previously placed in this genus are here allocated to *Retanathrips* Mound & Nickle **gen.n.**, with *Physothrips funestus* Hood as type species.

Key words: tospovirus vector, *Retanathrips* new genus, identification key, *Ceratothripoides*

Introduction

The genus *Ceratothripoides* was proposed by Bagnall (1918a) for one African species from Ghana, based on a single female specimen with distinctive antennae. Subsequent collecting indicated that the antennae of this specimen were deformed, and the species was discovered in several additional African countries. Since 1918, fourteen more species have been described in, or referred to, *Ceratothripoides*, although six of them have been placed into synonymy. Full nomenclatural information concerning all of these taxa is available in the web-based checklist to world Thysanoptera (Mound 2009a). However, the genus itself has remained poorly defined. Mound & Marullo (1996) discussed the five New World species that have been referred to this genus, but listed them as "Ceratothripoides", indicating that these five were not congeneric with the Old World species. As a result these five species have remained with no formal generic assignment.

Until recently, most of the species listed in *Ceratothripoides* have been known only to museum taxonomists. However, Murai (2000) recognized *C. claratris* as an important pest of tomatoes in Thailand, and Premachandra et al. (2005) recorded this species as a vector of a tospovirus on tomatoes in that country. Moreover, Halaweh & Poehling (2009) have indicated that tospovirus vector ability in this thrips is possibly controlled by a recessive allele. The identity and relationships of *C. claratris* are thus now of more general interest from an economic point of view. Moreover, *C. brunneus* has been found recently on three continents other than its native Africa. This species is well established and abundant on various crops in Peninsular Malaysia, two specimens have been examined from Puerto Rico, and a population has been studied from a greenhouse in the Netherlands (Mound & Azidah, 2009). Moreover, Nickle (2009) has recorded *C. brunneus* as being intercepted nine times in quarantine in North America. These records of this African species so far outside its native range, together with the studies on *C. claratris* as a tospovirus vector, have provided the incentive to re-examine the taxonomy and systematic relations of the species listed under this generic name.

Unfortunately, the results presented here are by no means definitive. The lack of field studies in tropical countries, including valid host associations and structural variation within and between populations, have resulted in taxonomic decisions that are not necessarily reliable. Two species recognised here appear to be

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