



Description of *Eretmocerus cocois* sp. n. (Hymenoptera: Chalcidoidea), a parasitoid of *Aleurotrachelus atratus* (Hemiptera: Aleyrodidae) on the coconut palm

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Abstract

Eretmocerus cocois Delvare sp. n. (Hymenoptera, Chalcidoidea) is described and illustrated. The adults emerge from fourth instar larvae of *Aleurotrachelus atratus* Hempel (Hemiptera, Aleyrodidae) which presently heavily infests the coconut plantations in Comoros Islands. It is compared with *E. pallidus* Dozier a diagnosis of which is given, together with new illustrations and with two other *Eretmocerus* also reared from *Aleurotrachelus* nymphs. A lectotype is selected for *E. pallidus*.

Key words: *Eretmocerus*, *Eretmocerus cocois*, Chalcidoidea, *Aleurotrachelus atratus*, *Cocos nucifera*, parasitoid, biological control, Guadeloupe, Comoros Islands

Introduction

Coconut plantations in the Comoros islands have been damaged since the beginning of this century due to *Aleurotrachelus atratus* Hempel (Hemiptera, Aleyrodidae), with heavy losses in yields and even, in the most harmful situations, by the death of the trees (Ollivier 2003; Julia 2003; Streito *et al.* 2004; Ollivier & Delvare 2005). The whitefly, while presently distributed in a number of countries (Howard *et al.* 2001), is of Neotropical origin (Mound & Halsey 1978), having been described from Brazil; it is now known from many tropical countries (Martin 2005). It was subsequently introduced on several islands of the Indian Ocean: Comoros Islands (including the Grande Comore, Moheli, Anjouan and Mayotte) (Ollivier 2003), Madagascar, Mozambique and Mauritius (Beaudoin-Ollivier *et al.* 2004) and finally La Reunion (Yousoufa *et al.* 2006); it was recently quoted from continental Africa: Mozambique, Uganda (Gerling *et al.* 2006). Searches for natural enemies in the Comoros islands failed to recover any parasitoids and only a few predators (ladybirds and green lacewings) were present but evidently could not control the populations of *A. atratus* (Ollivier & Delvare 2005). Conversely, in La Reunion, similar searches revealed the presence of two parasitoids, respectively *Cales noacki* Howard (Hymenoptera, Chalcidoidea) and an undescribed species belonging to the genus *Eretmocerus* (Hymenoptera, Chalcidoidea) (Yousoufa *et al.* 2006). The first species emerged from the second and third instars larvae of *A. atratus*; it had been introduced in La Reunion in 1976 to control the citrus whitefly *Aleurothrixus floccosus* (Maskell) (Étienne 1978; Quilici *et al.* 2003). It is also known from a number of