

## **Article**



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# Three new species in the subfamily Eriopeltinae Šulc from Italy (Hemiptera, Coccoidea, Coccidae) with comments on the genus *Lecanopsis*

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#### **Abstract**

Three new coccid species, namely *Hadzibejliaspis ferenci* Pellizzari **n. sp.**, *Lecanopsis sicula* Pellizzari **n. sp.** and *L. salvatorei* Pellizzari **n. sp.** are described and illustrated. Identification keys for the genera in the subfamily Eriopeltinae Šulc and to species in the genera *Hadzibejliaspis* Koteja and *Lecanopsis* Targioni Tozzetti are provided.

Key words: soft scales, Hadzibejliaspis, Lecanopsis, identification keys

### Introduction

The family Coccidae includes about 1140 species and is the third largest family in the Superfamily Coccoidea, although it is likely that there are more than twice as many species as currently recognized. Members of the family are present in all zoogeographical regions, but the richest in terms of number of genera and species are the Palaearctic and the Neotropical Regions (Kozár & Ben-Dov, 1997). Ten subfamilies are recognized in the Coccidae, based on the morphology of the adult female and, when known, that of the adult males (Hodgson, 1997). At present, the subfamily Eriopeltinae (as defined by Hodgson, 1994: 55) contains 13 genera (*Eriopeltis* Signoret, *Exaeretopus* Newstead, *Hadzibejliaspis* Koteja, *Idiosaissetia* Brain, *Lecanopsis* Targioni Tozzetti, *Luzulaspis* Cockerell, *Membranaria* Brain, *Poaspis* Koteja, *Psilococcus* Borchsenius, *Scythia* Kiritshenko, *Symonicoccus* Koteja & Brookes, *Vittacoccus* Borchsenius and *Waricoccus* Brookes & Koteja). Of these, species belonging to *Idiosaissetia* and *Membranaria* are African or Asiatic, the genera *Symonicoccus* and *Waricoccus* are known only in Australia, whereas the other genera have a Palaearctic distribution. *Eriopeltis*, *Scythia*, *Psilococcus* and *Vittacoccus* are clearly recognizable genera, whereas *Exaeretopus*, *Hadzibejliaspis*, *Lecanopsis*, *Luzulaspis* and *Poaspis* share a number of morphological characters that can make it difficult to place a species confidently in some of these genera. With regard to the host plants, *Eriopeltis*, *Scythia*, *Exaeretopus*, *Hadzibejliaspis*, *Lecanopsis* and, *Poaspis* are known mostly off Poaceae whereas *Luzulaspis*, *Psilococcus* and *Vittacoccus* live on Cyperaceae.

A synopsis of the attempts by different authors to form natural groups or tribes among the Eriopeltinae species is reported below.

Šulc (1941) introduced the genus *Mohelnia* (= *Scythia*) and created the Tribe Eriopeltini Šulc to take *Eriopeltis*, *Mohelnia* (= *Scythia*) and *Scythia*. In fact, even though the adult females do have a different morphology, *Eriopeltis* and *Scythia* have similar first-instar nymphs with spines on the margin of the head (Šulc, 1941; Řeháček, 1960). Later, Borchsenius (1957) placed the following genera in the subfamily Filippiinae: *Eriopeltis, Exaeretopus, Lecanopsis, Luzulaspis, Psilococcus, Scythia, Vittacoccus* plus *Chlamydolecanium* Goux, *Filippia* Targioni Tozzetti, *Metaceronema* Takahashi, *Parafairmaria* Cockerell and *Stotzia* Marchal. Danzig (1986) accepted this point of view. However, Giliomee (1967), on the basis of male characters, recognized the *Eriopeltis* group, with *Eriopeltis* and *Luzulaspis*, but considered that *Filippia* had no connection with these genera. Koteja (1969, 1970) also compared male morphology and demonstrated an affinity between *Eriopeltis*, *Scythia*, *Luzulaspis*, *Psilococcus* and *Vittacoccus*. The same author (Koteja, 1978) discussed and diagnosed the genera in the tribe Eriopeltini, established the new genera *Hadzibejliaspis* and *Poaspis* and regarded *Eriopeltis*, *Exaeretopus*,