



Supraspecific taxonomy of Palaearctic Platycleidini with unarmed prosternum: a morphological approach (Orthoptera: Tettigoniidae, Tettigoniinae)

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Abstract

Authors analysed 33 supraspecific taxa of Palaearctic Platycleidini with unarmed prosternum, most of them hitherto considered genera or subgenera of *Platycleis* and *Metrioptera*. For each of them they give a short description of the characters revealing the correct classification of males and females. Then, they propose a more consistent classification, when both males and females of a supraspecific taxon are clearly distinct, they should be elevated to distinct genera. On the whole, they propose to classify Palaearctic taxa into 32 genera, for which they propose a key based on the characters used in this paper and illustrated by 140 photographs. Additionally, they describe the following new genera: *Sardoplatycleis* for *Platycleis galvagnii* from Sardinia, *Amedegnatiana* for *Parnassiana vicheti* from Mediterranean France; and the following new species: *Platycleis buzzettii* from Iran and *Squamiana bressani* from Uzbekistan. For each genus they list all the species known, pointing out also those which, for scarcity of specimens, have been tentatively classified within that genus and that probably should be better assigned to another one. Further, they synonymise *Incertana* with *Decorana*, define the actual taxonomical status of the group *Roeseiana roesellii*, *R. fedtschenkoi*, *R. azami* and *R. brunneri*, reinstate *Tessellana carinata* from Balkan peninsula, establish that *T. nigrosignata* is restricted only to S Italy, while in Balkan peninsula its related *T. orina* occurs.

Key words: *Platycleis/Metrioptera* classification, genera/subgenera, morphological characters, taxa description, key to genera, synonymies

Introduction

A wide scientific literature deals with species concepts (e.g. de Queiroz 1998); conversely, genus category receives less attention. According to Voous (1992), the practicability and direct understanding of the limits of genera and genus-names are the most relevant and appreciated requirements for the genus, and, while species are a reality in nature, genera have no reality, are abstractions, and should be defined pragmatically. This concept is founded on the fact that evolutionary development is gradual, while the distinction of genera is discontinuous. It is a matter of opinion as to how closely related a group of species must be to constitute a genus, which has as its only function that of indicating groups of related species, but it must not be so inclusive as to impinge on the next higher category (Amadon & Short 1992). Genus definitions are based on the presumed phylogenetic origin of groups of species, but in most cases their monophyletic origin has not yet been proved. Within different classes or orders, schools of thought influenced the use of oligotypical or polytypical genera. In some cases, when the systematic of groups of species is not well known, the choice of grouping many species within a single genus seems reasonable (e.g. Turrisi *et al.* 2009). Otherwise, when the systematic is established, the formal use of oligotypical genera seems the forced alternative. In recent decades, the most popular alternative to oligotypical genera has been the use of subgenera, a category comprising a group of species, which are in such a way assigned formally to it. From the biogeographic point of view, the use of subgenera may create some problems, because they can have different primary centres of speciation, both among them and with the genus that groups them together. If we consider the centre of speciation of the whole genus and that one of the single subgenera, the result may be totally different (La Greca 1996).

Zeuner (1941) wrote a comprehensive monograph on the genera *Platycleis* Fieber, 1852 and *Metrioptera* Wesmael, 1838, describing 14 genera and, accordingly, ascribing to them a lot of species numbering just less than 80.