***Rhopalopyx cigigas* sp. n. from central Italy (Hemiptera, Auchenorrhyncha, Cicadellidae)¹**

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With 2 figures

Abstract

Rhopalopyx cigigas, a new species from Central Italy, is described. Its fundamental features lie in the size and in the morphology of the male genitalia (in particular of the aedeagus, anal tube and process of the pygofer lobes).

R. cigigas lives on several mountains of Central Italy. Adults were collected in August from 1800 to 2200 m, on grasses.

Key words: Homoptera, *Deltocephalinae*, Italy.

Introduction

The genus *Rhopalopyx*, with *Jassus preyssleri* Herrich-Schäffer, 1838 as typus generis, was described by Ribaut (1939). Among the species included into the new genus, this author placed also *Thamnotettix flaveola* Boheman, 1845 (taxon later found to be closely related to nearctic taxa on which De Long (1937) had established the genus *Paluda*, with typus generis *Thamnotettix placidus* Osborn, 1905). This fact led to the synonymisation of *Rhopalopyx* with *Paluda* by Emeljanov (1962). However, this synonymy was thought to be not justified by Ossiannilsson (1983) due to differences in colour, markings, proportions and shape of male genitalia. The genera *Paluda* and *Rhopalopyx* differ also in the geographic distribution. Indeed, *Paluda* is a holarctic genus; *Rhopalopyx* includes taxa exclusively distributed in the palaearctic region.

Up to now, the genus *Rhopalopyx* consists of three distinct groups of species separated by coloration, markings and morphology of the male genitalia (Dmitriev 1999): 1) The first group includes the typus generis *R. preyssleri* (Herrich-Schäffer, 1838) sensu Vilbaste 1972 and *R. adumbrata* (Sahlberg, 1842). 2) The second group consists only of *R. brevis* Emeljanov, 1964. 3) The third group includes several taxa, which exter-

nally (i.e. in size, proportions and colorations) are very similar or even indistinguishable from each other. They are separated by characters of their male genitalia, but these characters have been shown to be variable in some cases (see Wagner 1967). The taxonomic status of these taxa therefore are controversially discussed at the moment. This group, up to now, consists of 4 “species” proposed by Dmitriev (1999) – *R. vitripennis* (Flor, 1861), *R. monticola* Ribaut, 1939, *R. elongata* Wagner, 1952, *R. tianshanica* (Mitjaev, 1969) and of *R. brachyanus* recently described by Orosz (1999), but future researchs may achieve different results.

In the years 1998–99, during studies on the composition of the Auchenorrhyncha fauna of high altitude of the Central Italy, a new species of the genus *Rhopalopyx*, *R. cigigas* sp. n., was collected in meadows of some mountains (Mt. Terminillo, La Maiella, Mt. Velino). It belongs to the *vitripennis*-group, but is clearly different in several characters from the species mentioned above.

Taxonomic description

***Rhopalopyx cigigas* sp. n.**

Material examined: Italy, Lazio: Mt. Terminillo (Rieti), m 1900–2200, meadow, 21/8/1999: 1 ♂ (holotype), 1 ♀ (allo-

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type), Guglielmino & Bückle leg.; Abruzzo: Mt. Velino—North of Piano di Pezza (L'Aquila), ~1800 m, meadow, 13/8/1998: 2 ♂♂ (paratypes), Guglielmino & Bückle leg.; La Maiella: La Maielletta (Pescara), 1990 m, meadow, 21/8/1998: 1 ♂ (paratype), Guglielmino & Bückle leg..

Type material kept in the Author's collection, c/o Dipartimento di Protezione delle Piante, Università della Tuscia, Viterbo.

Measurements: Males. Total body length (from the vertex to the tip of the fore wings): 4.64–4.76 mm; width of the head including

the eyes: 1.20–1.26 mm; length of vertex: 0.48–0.52 mm; length of pronotum: 0.46–0.50 mm; width of pronotum: 1.04–1.18 mm. — Females. Total body length (from the vertex to the tip of the fore wings): 4.86 mm; width of the head including the eyes: 1.30 mm; length of vertex: 0.54 mm; length of pronotum: 0.54 mm; width of pronotum: 1.16 mm.

Habitus very similar to *R. vitripennis* and *R. elongatus* in coloration and proportions, but bigger in size.

Fig. 1. *Rhopalopyx cigigas* n. sp. ♂ [paratype from Abruzzo: Mt. Velino — North of Piano di Mezzo (L'Aquila)]: Male pygofer and anal tube, dorsal view (A) and right lateral view (B). Genital valve and plates, ventral view (C). Connective, right genital plate and stylus, dorsal view (D). Scale: 0.5 mm.

Fig. 2. *Rhopalopyx cigigas* n. sp. ♂ [paratype from Abruzzo: Mt. Velino – North of Piano di Mezzo (L'Aquila)]: Aedeagus, lateral view (A), ventral view (B), posterior view (in direction of the longer arrow (C) and apex (in direction of the shorter arrow) (D). Scale: 0.1 mm; ♀ (allotype from Lazio: Mt. Terminillo): 7th abdominal sternite, ventral view (E). Scale 0.5 mm.

Male genitalia (Figs 1A–D, 2A–D): Anal tube (Fig. 1A–B) very long, longer than genital plates, well sclerotized, with almost parallel sides. Pygofer (Fig. 1B) with a large membranous area; each pygofer lobe process long, with at the apex a sturdy spur directed posteriorly and a bundle of black macrosetae on the dorsal edge. Genital plates (Fig. 1C–D) subtriangular, elongate, with the round apex and macrosetae irregularly arranged; dorsally, each plate with a conical well sclerotized process near the apex of styli. Valve (Fig. 1C) triangular, about 3 times as broad as long. Genital styli (Fig. 1D) like in the other species of *Rhopalopyx*; apophysis well sclerotized, finger-shaped, with a rough surface. Connective (Fig. 1D) short, reel-shaped. Aedeagus (Fig. 2A–D) simple, without processes. Basal portion of the shaft, in lateral view, large, squat and with convex ventral side; distal portion tubular apically forked. Phallotreme on the dorsal side of aedeagus in subapical position.

Female genitalia (Fig. 2E): Genital block with few macrosetae near the posterior margin of each side. 7th abdominal sternite subrectangular not covering the base of the ovipositor; posterior margin V-shaped with a median notch.

Geographic distribution: At present, *R. cigigas* sp. n. is known only from Mt. Terminillo,

Mt. Velino and La Maielletta. The altitude of the so far known collecting sites varies between 1800 and 2200 m.

Ecology: The adults were collected in August on grasses. Nothing is known about the host plants of the juvenile instars, the number of yearly generation and the overwintering stage.

Derivatio nominis: The specific name *cigigas* is derived from the Greek word “gigas” (large in size) with the prefix “ci” as abbreviation for “Central Italy”, the distribution area of the new species.

Conclusions

R. cigigas differs strongly from the other species of *vitripennis*-group by the following remarkable characters: 1) the large size, being it the biggest taxon of the group; 2) the shaft of the aedeagus with the convex ventral side (the other species of this group have the shaft of the aedeagus with more or less concave (never convex) ventral side; 3) the exceptional length of its anal tube; 4) the shape of process of pygofer lobes and the orientation of the spur situated at the apex (this is directed posteriorly in *R. cigigas*, ventrally in the other species).

Up to now, the species of *Rhopalopyx* known from Italy are three: *R. vitripennis*, widely distributed in the palaearctic region, *R. elongatus* recorded from Spain, France, Italy and The Netherlands; *R. cigigas* sp. n. only known from the Apennine Peninsula.

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