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***Macrolophus pericarti* sp.n., a peculiar new species from Canary Islands (Heteroptera, Miridae)**

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A b s t r a c t : A new species, *Macrolophus pericarti*, from the Canary Islands is described and figured. It is the smallest of the West Palaearctic species of this genus and its micropterous form is predominant. The host plant is the endemic *Cistus symphytifolius* LAM. on which it lives associated with another Canarian endemic Dicyphini - species, *Cyrtopeltis canariensis* LBG.

K e y w o r d s : Heteroptera, Miridae, *Macrolophus*, new species, Canary Islands

Introduction

The tribe Dicyphini is so far represented in the Canary Islands by 4 genera (*Cyrtopeltis*, *Dicyphus*, *Macrolophus*, *Singhalesia*) and 9 species. *Macrolophus melanotoma* (A. COSTA 1853) (= *caliginosus* WAGNER 1950) is the only species reported of this genus and is known to occur on all islands except the arid easternmost ones, Lanzarote and Fuerteventura.

The first specimens of this inconspicuous small new species collected several years ago by one of the authors (EH) were micropterous and could not be placed in any of the Dicyphini genera. Investigations on more material collected later on the host plant and the occurrence of two macropterous specimens have shown now that it is best to place them in the genus *Macrolophus*.

***Macrolophus pericarti* RIBES & HEISS sp. n. (Figs. 1-13)**

T y p e m a t e r i a l : Micropterous ♂ ♀. A large number of both sexes has been collected on the host plant only at the following localities: Tenerife, Aguamansa above Orotava 1000m, 24 IV 1991 Heiss; Tenerife, Icod env. 24 IV 1991 Heiss; same locality 22-26 XI 1991 Heiss; Tenerife, Sta. Úrsula 900m, 21-27 XI 1992 Heiss; La Palma, road Sta. Cruz - Cumbre at 800m, 26 II - 4 III 1998 Heiss, and Cumbre at 1450m, 26 II - 4 III 1998 Heiss.

Macropterous ♂ ♀ are from Tenerife, Aguamansa - Caldera, 14 XI 1986 J.P. Duffels in Zoölogisch Museum Amsterdam (♂) and coll. Heiss (♀).

Holotype: Micropterous ♀ from Tenerife, Sta. Úrsula 900m, 21-27 XI 1992 Heiss, deposited in the collection of E.Heiss as a permanent loan of the Tiroler Landesmuseum Innsbruck. Paratypes in the collections of the authors, B. Aukema (Wageningen), M. Baena (Córdoba), M. Baez (La Laguna, Tenerife), A. Carapezza (Palermo), G. Cassis (Canberra), H. Günther (Ingelheim), M. Josifov (Sofia), I.M. Kerzhner (St. Petersburg), Biologiezentrum (Linz), R. Linnavuori (Raisio), A. Matocq (Épinay sur Seine), A. Melber (Hannover), Zoölogisch Museum Amsterdam, J. Péricart (Montereau), Ch. Rieger (Nürtingen).

D i a g n o s i s : Small species without a dark marking lateral of the eye which distinguishes it from *melanotoma* (A. COSTA) (= *caliginosus* WAGNER), the only other

species known from Canary Islands; and from the other West-Palaearctic species, *glaucescens* FIEBER 1858 and *pygmaeus* (RAMBUR 1839) sharing this character. *M. costalis* FIEBER 1858 has a black tip on the scutellum and *M. epilobii* PUTSHKOV 1978 from Azerbaijan, which also lacks black markings on head and scutellum, is larger (3.35 - 3.80 mm) and has a smaller ocular index (δ 3.0 - 3.2 φ 3.6 - 4.2) and different shape of claws (Fig. 14).

Description: Micropterous form.

General colour greenish yellow, antennae greenish with sometimes darker segments III + IV, hemelytra green in fresh material; in dry specimens the colour is fading and only lateral and/or apical borders remain green and median parts get whitish. Eyes and apex of rostrum dark brown. Legs greenish yellow, apex of tarsi darkened.

Surface of body and appendages smooth and shiny with coarse yellowish erect pilosity, this more dense on legs and antennae; antennal segment I with some additional longer dark hairs. Lateral borders and surface of hemelytral pads also with long erect setae. Tibiae with long dark spines inclining about 45 degrees.

Head: Shorter than wide and strongly rounded anteriorly and dorsally, tylus nearly vertical, projecting. Eyes small, ovate. Ratio width of head across eyes to width of eyes (ocular index) 4.0 - 4.2 (δ δ) 4.50 - 4.60 (φ φ). Antennae long and slender, segment I thickest and slightly clavate, II + III cylindrical the latter thinner than the preceeding, IV fusiform. Mean length of antennal segments I:II:III:IV = 0.18: 0.37: 0.37: 0.26 (δ) and 0.17: 0.30: 0.30: 0.25 (φ). Rostrum slender, reaching posterior coxae.

Pronotum: Modified because of the micropterous condition but distinctly wider than long, lateral borders subparallel at humeri constricted anteriorly, collar poorly delimited by a shallow transverse impression. Anterior portion of disk with 2 (1+1) hardly discernible large callosities which meet medially, posterior portion reduced to small transverse area. Posterior margin strongly sinuate at middle.

Scutellum: Triangular with equilateral margins, convex at middle, sloping towards lateral borders.

Hemelytra: Reduced to elongate apically rounded pads consisting of clavus and corium only, without cuneal fracture and vestiges of a membrane. Claval suture visible, radial and subcostal veins faint and hardly discernible. Exposed part of abdomen comprising tergites III - VIII shrunk in dry specimens with a tendency, for connexiva to be slightly elevated and inflexed as in some apterous Veliidae.

Legs: Relatively long, femora flattened laterally, constricted towards their ends; tibiae cylindrical, slightly thickened at its apex. Posterior tibiae 2.4 (δ) - 2.7 (φ) x longer than tarsi, their segments I and III subequal in length, II about twice as long as I. Claws strongly curved with broad leafshaped pseudarolia (Fig.13).

Genital structures: Male: Pygophore subglobular, its dorsocaudal opening round with three asymmetrical processes (Figs. 8-9). Left paramere with subcylindrical basal shaft, this bearing coarse long erect setae and a long curved hooklike anterior process (Figs. 4-5). Right paramere small, fingerlike, without pilosity (Fig. 6). Phallus without visible chitinized internal structures (Fig. 7).

Female: Ovipositor long, its base reaching metacoxae. Gynatrial complex with laterad ovoid sclerotized rings; vermiform gland inflated at middle; lateral oviducts long, moustache - shaped, central structure irregular, subcylindrical, elongated. Seminal reservoir with slender, rounded, middle - laterad sclerotized rings (Figs. 10-12).

Macropterous form: Only one macropterous specimen of δ φ each is known to date and it seems that this morph is very rare. The habitus of these specimens is as of other *Macrolophus* (Fig. 2). The pronotum is trapezoidal and the abdomen is completely

covered by the hemelytra. The latter are fully developed with clavus and cuneus, the membrane has one cell formed by a thick vein. Colour of hemelytra whitish yellow at middle, all borders and cuneus green; membrane translucent with a green vein and a basolateral whitish spot adjacent to the apex of cuneus. Other structures correspond to those of the micropterous morph. No intermediate form of alary reduction has been observed yet.

E c o l o g y : The host plant of *Macrolophus pericarti* is *Cistus symphytifolius* LAM., a Canarian endemic which is known from the western islands, where it occurs at an altitude of 800 - 1800m. The specimens are found on the underside of the hairy leaves, mostly attached to the middle rib, associated with another endemic Dicyphini, *Cyrtopeltis canariensis* LINDBERG. Adults and all stages of both species have been observed together. Immature stages of the new species can be distinguished from those of *Cyrtopeltis canariensis* by smaller size and less conspicuous tibial spines. Although macropterous forms are also known, their range of distribution seems very limited because of the tiny size, and it can be assumed that it represents another endemic species to the Canary Island.

E t y m o l o g y : It is a pleasure to dedicate this peculiar new species to our estimated friend and excellent entomologist Jean Péricart (Montereau) on the occasion of his 70th birthday earlier this year.

M e a s u r e m e n t s : Micropterous form: Length 1.25 - 1.70 mm (♂♂), 1.60 - 2.00 mm (♀♀). Macropterous form: Length 2.1 mm (♂), 2.30 mm (♀).

Discussion

The generic placement of the new species has created difficulties, as its set of characters - following the keys in WAGNER 1970 - did not clearly lead to one of the treated genera; the assignment to a new genus was considered, which would have required consulting CASSIS 1986. As this work was not available, we contacted the author directly, who suggested in the light of his revised definitions of Dicyphini genera and after having studied original material, to refrain from designating a new monotypic genus and to place it in the genus *Macrolophus*.

Recent studies of the West-Palaearctic species of *Macrolophus* by JOSIFOV 1992 and CARAPEZZA 1995 have revealed, that several synonymies were involved which are not yet included in the systematic catalog of the Plant Bugs of the World by SCHUH 1995. Following JOSIFOV's key, *M. pericarti* sp. n. resembles only superficially *M. epilobii* PUTSHKOV from Caucasus but can easily be distinguished by several characters already mentioned.

Acknowledgments

We thank J. Woudstra (†), J.P. Duffels and B. Aukema (Amsterdam) for providing the interesting material from the Zoölogisch Museum Amsterdam, R. Linnavuori (Raisio) for checking a possible relationship to African Miridae and G. Cassis (Canberra) for his efforts and advice concerning the present generic placement of this new species. We also thank C. Schaefer (Storrs) for improving our English.

Resumen

En la presente nota se describe e ilustra *Macrolophus pericarti* sp. n. de las Islas Canarias, que por sus características estimamos endémico del archipiélago. Resulta ser la especie paleártica occidental más pequeña del género y su forma micróptera es, con mucho, la predominante. Vive sólo sobre la jara endémica *Cistus symphytifolius* LAM., conjuntamente con *Cyrtopeltis canariensis* LBG., otro Dicyphini - especie canario exclusivo de estas islas.

Zusammenfassung

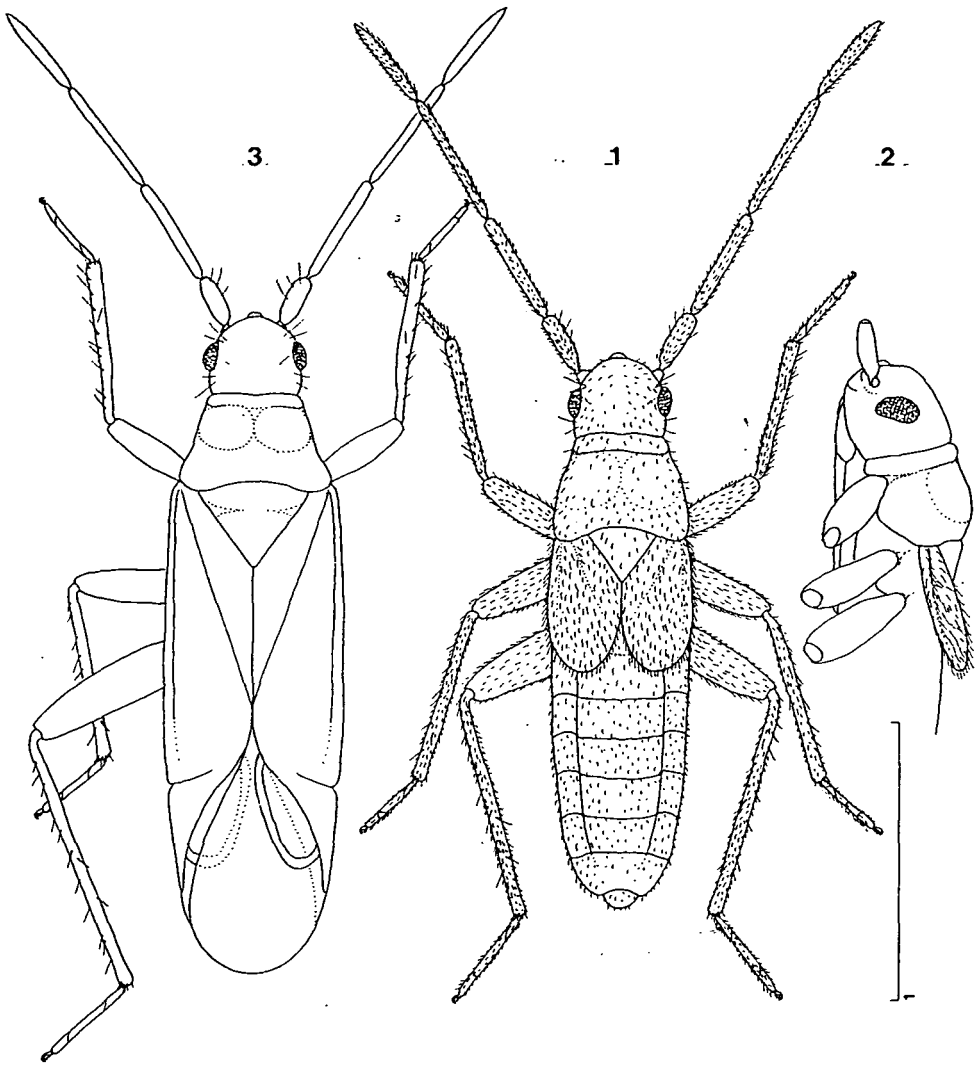
Eine neue Art, *Macrolophus pericarti* sp. n., wird von den Kanarischen Inseln beschrieben und abgebildet. Es ist die kleinste Art der westpalaearktischen Vertreter dieser Gattung welche vorwiegend in einer mikropteren Form auftritt. Sie lebt an der für den Archipel endemischen Pflanze *Cistus symphytifolius* LAM. assoziiert mit der ebenfalls endemischen Dicyphini - Art *Cyrtopeltis canariensis* LBG.

Literature

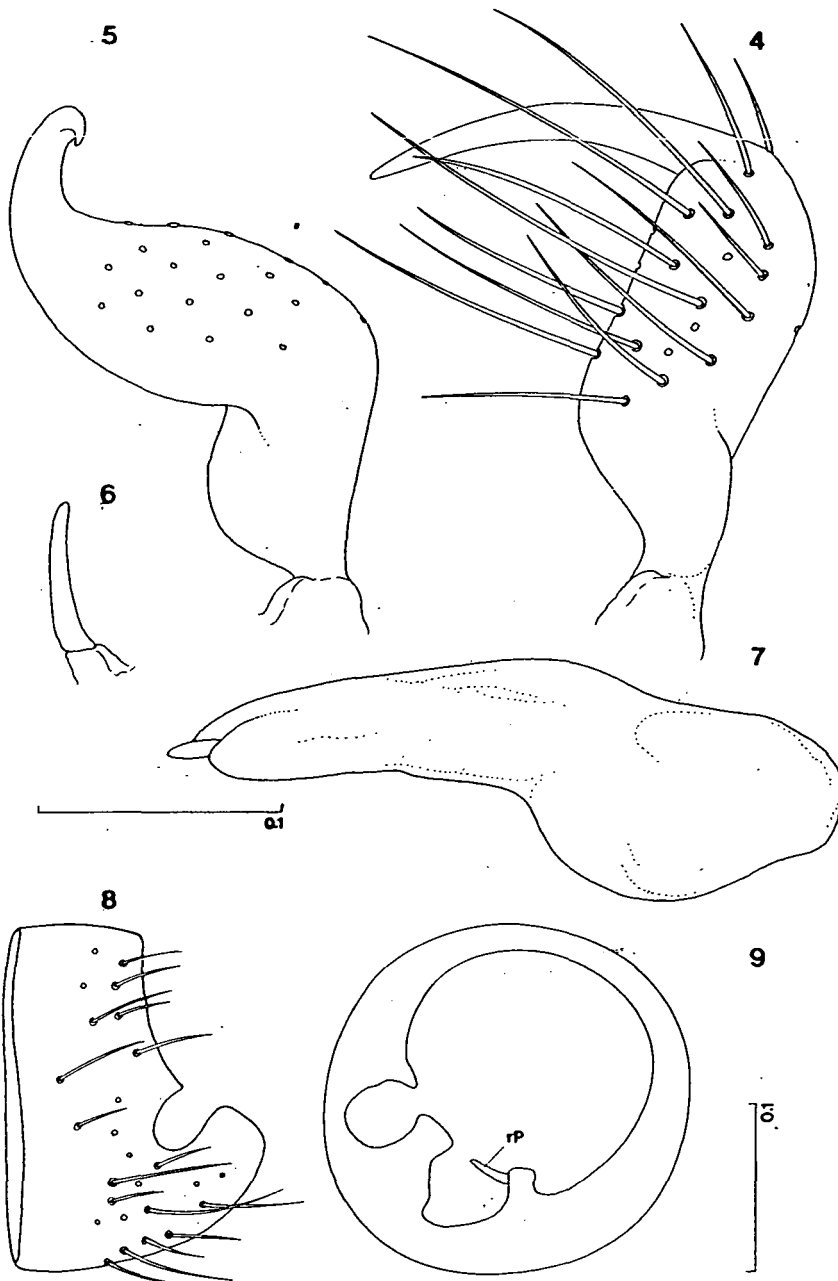
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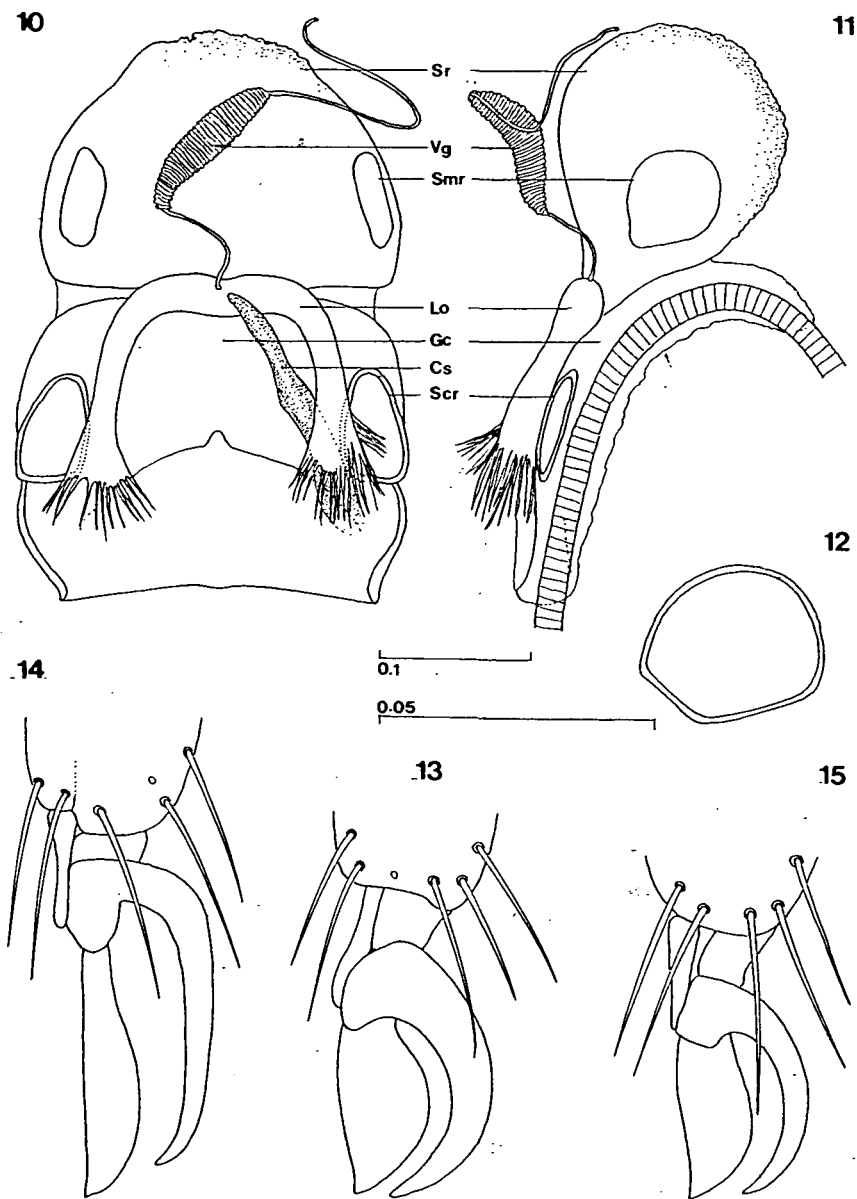
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Figs. 1-3: *Macrolophus pericarti* sp.n. 1 - micropterous female dorsal view; 2 - ditto lateral view; 3 - macropterous female habitus, pilosity omitted. Scale in mm.



Figs. 4-9: *Macrolophus pericarti* sp.n. 4, 5 - left paramere in different positions; 6 - right paramere; 7 - phallus lateral view; 8 - male pygophore, lateral view; 9 - ditto, caudal view (rP = right paramere). Scales in mm.



Figs 10-15: 10-13 - *Macrolophus pericarti* sp.n. 10 - female seminal reservoir and gynatrial complex, dorsal view; 11 - ditto, left lateral view; 12 - seminal middle - sclerotized ring of another specimen, enlarged; 13 - pretarsal claw; 14 - *Macrolophus epilobii*, pretarsal claw; 15 - *Macrolophus melanotoma*, pretarsal claw. Abbreviations: Cs = central structure; Gc = gynatrial complex (SCHUH & SLATER 1995); Lo = lateral oviduct; Scr = sclerotized ring; Smr = seminal middle-sclerotized ring; Sr = seminal reservoir; Vg = vermiform gland. Scales in mm.

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