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A NEW *Cyrtotylus* SPECIES (HETEROPTERA, MIRIDAE, ORTHOTYLINAE) FROM FRENCH GUYANA

*Una nueva especie de Cyrtotylus (Heteroptera: Miridae: Orthotylinae) de la
Guayana Francesa*

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Abstract. *Cyrtotylus henryi* (Orthotylinae, Orthotylini) is described as a new species on the base of a female from French Guyana. Justifications are offered for this action. The genus *Cyrtotylus* Bergroth, 1922 is mentioned for the first time from French Guyana.

Key words. *Cyrtotylus henryi*, Neotropics, Miridae, Orthotylini, Taxonomy.

Resumen. Se describe a la nueva especie *Cyrtotylus henryi* (Orthotylinae, Orthotylini) en base a una hembra de la Guayana Francesa. Se dan justificaciones para esta acción. El género *Cyrtotylus* Bergroth, 1922 es mencionado por primera vez para la Guayana Francesa.

Palabras clave. *Cyrtotylus henryi*, Fauna Neotropical, Miridae, Orthotylini, Taxonomía.

INTRODUCTION

The genus *Cyrtotylus* was described by Bergroth (1922) to accommodate his new species *C. rubricatus* from Callanga (Perú). Later, Carvalho (1950, 1988, 1989a, b) and Carvalho and Carpintero (1991a, b) described seven additional new species from Argentina (Cordoba, Salta, Tucuman), Brazil (Parana, Rio de Janeiro, Santa Catarina) and Venezuela (Bolivar). Finally, Costa et al. (2008) transferred *C. ruber* Carvalho and Carpintero, 1991a to the new genus *Guianocoris*. Also, significant number of new species from Argentina, close to *C. wygodzinskyi* Carvalho, and other new species from Perú are being studied by Dr. T. Henry and the first author.

Among the rich material of plant bugs from French Guyana sent to the second author for identification by Armand Matocq (Paris, France), there was one specimen of *Cyrtotylus* belonging to a new species, described hereafter.

MATERIAL AND METHODS

The specimen described as new species in the present work comes from the private collection of our colleague and friend A. Matocq (Paris, France). It will be preserved in collection of Heteroptera of Museum National d'Histoire Naturelle, Paris, France.

The terminology concerning morphology and descriptive format follows Carpintero and Chérot (2008) and subsequent works (2009, 2011, 2014, 2016, 2017).

Measurements are given in millimeters (mm). The photos showing morphological details were taken with a Nikon DXM1200 digital camera.

RESULTS

Cyrtotylus henryi sp. nov. (Figures 1-5).

Holotype. (female) French Guyana, Kaw, Patawa, Pk 37.5, 03.x.2000, *Matocq* A. leg. (MNHN) [according to Costa, Chérot and Carpintero, 2008: 371, appendix 2, the corresponding place lies on the National road number 6 to Patawa, 37.5 km to Roura, 52°04'56''W, 4°30'47''N].

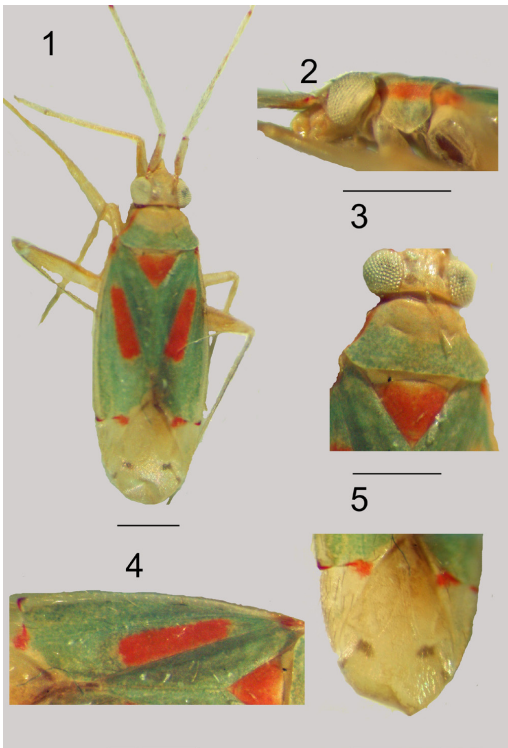
Etymology. The authors are happy to dedicate this new species to Dr Thomas J. Henry (United States National Museum, Washington D.C, United States of America) in homage to his prominent contribution to modern Heteropterology.

Measurements. Total length in dorsal view: 3.20, maximal width of hemelytra: 1.05, width of vertex: 0.24, width of head across eyes or diatone: 0.63, length of antennal segments: I: 0.45, II: 1.26, III: 0.73 (left antenna), IV: 0.55 (right antenna), medial length of pronotum: 0.40, posterior width of pronotum: 0.78, total length of scutellum, mesoscutum included: 0.38, anterior width of scutellum: 0.40, length of cuneus: 0.55, width of cuneus: 0.38.

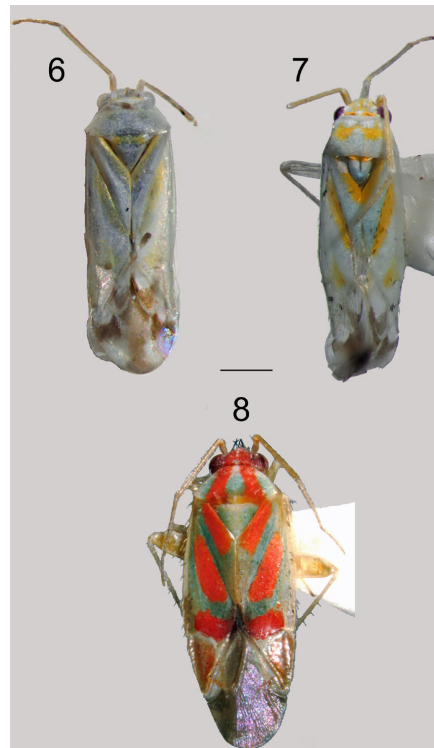
External morphology and coloration. Tiny, yellow, orange-red and green bug (Figure 1), dorsally with sparse, semi-erect, brown (silvery under incident light), relatively long setae. *Head:* Elongate, obviously declivous in dorsal view, smooth, yellow (Figures 1-2). Clypeus anteriorly rounded, laterally flattened, yellow. Clypeus and tylus with sparse, brown, erect setae. Mandibular and maxillary plates yellow, slightly tinged with red-brown. Frons smooth, yellow, with sparse, elongate, semi-erect, stiff white setae. Vertex slightly carinate, yellow. Eyes silvery to whitish, occupying more than $\frac{3}{4}$ of head height in lateral view (Figure 2). First antennal segment relatively thick, club-like, longer than vertex width, yellow, slightly

tinged with red. Second segment narrower, significantly longer, yellow, with reddish ring at apex. Third and fourth segments slightly narrower than the second, yellowish, darker apically, apex of the third red. All segments with short, semi-erect setae. Labium reaching beyond mesocoxae, yellowish. *Pronotum*: Bell-shaped. Pronotal collar very short, yellow. Pronotal callosities yellow, rounded, medially almost contiguous and separated from pronotal lateral margins. Pronotal lateral margins obviously concave medially (Figures 1, 3), whitish. Pronotal posterior margin almost straight. Humeral angles rounded. Pronotal disk slightly rough, yellowish, spotted with green. Propleura yellowish, spotted

with green, bearing a wide red stripe under whitish margin. Meso- and metapleura yellowish with brownish areas. Mesoscutum yellowish. Scutellum slightly swollen, reddish, its base and its tip yellowish. *Hemelytra*: Clavus uniformly green. Endocorium green with a wide rectangular reddish stripe contiguous to claval suture (Figure 4). Exocorium (embolium) yellowish, its base and its apex reddish. Cuneus yellowish, its basal margin tinged with red. Membrane yellowish brown with two brown spots under the main cell and two other small brown patches under tip of cuneus. Legs yellowish, metafemora with elongate brown line, apex of tarsi darker. Abdomen yellowish.



Figures 1-5 - *Cyrtotylus henryi* n. sp. Holotype female. **1**, Habitus in dorsal view. **2**, Head and Pronotum in lateral view. **3**, Pronotum and scutellum in dorsal view. **4**, Left clavus and corium. **5**, Membrane and cuneus. Scale = 0.5 mm.



Figures 6-8 - Habitus in dorsal view of *Cyrtotylus* spp. of wygodzinski-group. **6-7**, *C. cruciatus* Carvalho and Carpintero, 1991b. **8**, *C. wygodzinski* Carvalho, 1950. Scale = 0.5 mm.

DISCUSSION

The genus *Cyrtotylus* Bergroth, 1922 can be separated from the other genera of Central and South-American Orthotylineae of the tribes Orthotylini and Ceratocapsini by the following character states: clypeus anteriorly rounded, laterally flattened, vertex slightly swollen, marginate, two last antennal segments slightly narrower than two first and not spindle-shaped, eyes contiguous to pronotal anterior margin, fine and shallow dorsal punctuations (pronotum and hemelytra apparently smooth at low magnification), dorsal coloration not black (yellow, green or red, sometimes locally blue-grey), dorsal pattern not even, dorsal surface pilose, embolium slightly widened apically and cuneal fracture not deep (Carvalho 1985, Costa, Chérot and Carpintero 2008). The new species possess all of these character states and consequently we classify it in *Cyrtotylus*.

From the 7 already described species of *Cyrtotylus*, *C. henryi* sp. nov. differs by the dorsal pattern of coloration. According to Costa, Chérot and Carpintero (2008), the *Cyrtotylus* can be classified in three species groups based on external anatomy and male genital structures: one including the type-species *C. rubricatus* Bergroth, 1922 and *C. venezuelanus* Carvalho, 1989b, a second group including *C. antoniensis* Carvalho, 1989a, *C. catarinensis* Carvalho, 1989a and *C. ricardo* Carvalho, 1988 and a third group including *C. cruciatus* Carvalho and Carpintero, 1991b and *C. wygodzinski* Carvalho, 1950.

F. Konstantinov (pers. com.) commented to the authors that "Well sampled spotted orthotyline species, e.g. from the genera *Pseudoloxops*, *Reuteria*, *Malacocoris*, and *Zanchius* almost unequivocally show a high degree of polymorphism (read polychromy) in the color-pattern of dorsum". In reference to the genus *Cyrtotylus*, and after

having seen large series of most of known and many other new species, because they are being studied by the first author and the honoree, we can assert that the chromatic variability in this group of species of the genus (*wygodzinski* - *cruciatus* - *henryi*) is given by a different intensity of the red lines, which go from an intense red to a pale orange, and the background tone of the hemelytra that goes from a gray-blue, in the most intensely colored, even a pale yellowish in less intensely colored specimens, but always respecting the pattern of red lines and spots. This is, in this group, invariable and characteristic of each species hitherto known. Because *Cyrtotylus henryi* has a particular red line pattern of this species, the authors decided to describe it as new, although we do not have a male to ratify its validity with the characters coming from its genitalia.

C. henryi sp. nov. belongs to the third group by the wide rectangular reddish stripe of endocorium and the yellowish head but differs from both already described species by the membrane (versus a species with a complex dark pattern in *C. cruciatus*), the even clavus (versus clavus with almost rectangular, fuzzy, orange brown stripe in *C. cruciatus* and with elongate orange to red stripe lining clavus anterior margin in *C. wygodzinski*) (Figure 1 versus Figures 6-8), the anteriorly yellowish and posteriorly green pronotum missing reddish longitudinal stripes dorsally etc. (Figures 1-3 versus Figures 6-8). From the members of the first and second species groups, *C. henryi* sp. nov. differs by the totally different dorsal chromatic pattern, particularly complex in this species-group (the narrow red lines on hemelytra being convoluted). Finally, it is good to mention that the genus *Cyrtotylus* Bergroth, 1922, originally described from Perú, and lately mentioned for Argentina, Brazil and Venezuela is recorded for the first time from French Guyana.

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