

First record of *Tominotus inconspicuus* Froeschner (Hemiptera: Cydnidae) in Cuba

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RESUMEN

Las chinches excavadoras (Cydnidae) están distribuidas por todo el mundo y más de treinta especies han sido registradas como plagas. *Tominotus inconspicuus* Froeschner fue anteriormente reportada en Brasil y Argentina. En este artículo se informa por primera vez la presencia de *T. inconspicuus* en Cuba. Los machos adultos fueron encontrados alimentándose de las raíces del césped (*Cynodon dactylon* L. (Pers) y los frutos de *Guaiacum sanctus* L. en el campo de golf de Varadero. Los muestreos fueron hechos durante noviembre de 2013 y febrero de 2015. Amarillamiento en las hojas del césped y daños mecánicos en las semillas de *G. sanctus* fueron causados por estos insectos. Se ofrece una breve descripción y una clave ilustrada de la especie.

Palabras claves: *Tominotus inconspicuus*, césped, *Cynodon dactylon*, daños

ABSTRACT

The burrower bugs (Cydnidae) are worldwide distributed and more than 30 species have been reported as pests. *Tominotus inconspicuus* Froeschner was recorded from Brazil and Argentina. This paper aims to register, for the first time the presence of *T. inconspicuus* in Cuba. Male adults feeding on turf grass roots (*Cynodon dactylon* L. (Pers) and fruits of *Guaiacum sanctus* L. in the Varadero Golf Club were found. The observations were made during the months of November 2013 and February 2015. Yellowish to the turf grass leaves and mechanical damages to the *Guaiacum*'s seeds were caused by the insect. A brief description of the species and an illustrated key is also offered.

Key words: *Tominotus inconspicuus*, turfgrass, *Cynodon dactylon*, damage

The burrower bugs (Cydnidae) are polyphagous insects and several species may cause damages to the roots of crops. More than 680 species are recorded and up to date 30 species have been reported as pests [Lis *et al.*, 2008]. *Tominotus* was described by Mulsant and Rey in 1866 based on a species originally described from France. This group is distributed from United States of America, Mexico, Central America, West Indies even Argentina and Chile in South America [Froeschner, 1960].

In Cuba, Cydnidae Billberg (1820) was mainly studied by Barber and Brunner [1932]; Alayo [1967] and Zayas [1988] but this family is not well known and only one species of *Tominotus* Mulsant has been described until now. The objective of this work is to register for the first time the presence of *T. inconspicuus* in Cuba.

From December 2013 to February 2015 soil samplings were carried out at Varadero Golf Course located at north coast of Hicacos Peninsula (23° 04' N and 81° 17' W) Varadero, Matanzas province, Cuba. The area has sandy soils and is dominated by turfgrass (*Cynodon dactylon* L. and *Paspalum notatum* Flugge). The insects were collected in the turfgrass area (tee, green and sand traps) by means of a hole cutter device and a metallic shovel [Marrero *et al.*, 2012]. The species was described morphologically by means of a Novel stereomicroscope; genitalia of the male were dissected and photographed. The species was identified in accordance with the taxonomic keys of Froeschner (1960).

On November 2013 and February 2015 males of *Tominotus inconspicuus* Froeschner associated with turf

grass roots (*Cynodon dactylon* L.) and fruits of *Guaia-cum sanctus* L. were detected in Varadero Golf Club.

As a result of our studies it was confirmed that males of *T. inconspicuus* are oval with black dark color; length of body: 5.1 mm (*Figure 1 a*). Head about two thirds width, the surface shining and clypeus equaling juga. The juga with a complete row of submarginal setigerous punctures bearing full row of pegs and few hairs. Eyes somewhat protruding with a lateral setae and have moderately little ocelli. Antennal of brown color, segment V is greater with 0.41 mm of length and buculae almost as high as labial segment II.

Pronotum length about half width and lateral margins with submarginal row of seven or eight setigerous punctures. Scutellum length greater than width and with the rounded apex has a bigger length than his width. Hemelytron dark brown with clavus and co-

rium polished, the clavus with one complete and one partial row of punctures.

Mesocorium with two rows of punctures paralleling to claval suture and costa with two setigerous punctures. The membrane surpasses the abdomen's apex, the membranal suture is straight and the membrane has several little dark brown stains (*Figure 1 a*).

The labium reaches the middle coxae. The evaporatorium reaches the lateral margin and the lateral area is impunctate. Sternites more or less rugopunctate in spiracular area. The media and hind tibiae are thin and several spines of equal size on internal and external margins are present (*Figure 1 b*). Terminalia has a genital capsule shining with the apical margin sinuate medially. Parameres are broad, of sharp apex. The surface with dense setigerous punctures; ventrally with laminar structure sinuated in middle part and toothed margin (*Figure 1 c*).



Figure 1 (8 x) (a) Dorsal view of *Tominotus inconspicuus* F; (b) Lateral view; (c) Parameres.

Until now only one species of *Tominotus* (*Tominotus communis* Uhler) has been described from Cuba and it was notified as very abundant and widely distributed for all the Island. *T. communis* was collected by Alayo in 1967 at the southern region of Matanzas province, in Ciénaga de Zapata. This species was also detected in Pinar del Río province feeding on cassava (*Manihot sculenta* M) and it was very often captured by means of light traps [Grillo, 2012].

T. inconspicuus can be separated from *T. communis* by the differences in the length, the color of the body and by the parameres shape. *T. communis* has a moderate size (5.14-7.22 or 8.0 mm) and is larger than *T.*

inconspicuus; has a dark brown or reddish coloration [Grillo, 2012]. The parameres shape of *T. inconspicuus* (*Figure 1 c*) have also significant differences from *T. communis*.

The occurrence of *T. inconspicuus* in the Varadero Golf Club may be carried out by the agency of man having in mind the great number of golf players and tourists which arrived to the Golf Course. The coastal localization of the Varadero Golf Club and the island characteristic of our country may help the occurrence of new species of insects. Several burrower bugs have been found at Mexico coast region [Mayorga and Cervantes, 2006] and five species of Cydnidae were also

found by Lis and Zack (2010) in the Pacific islands. A new species of *Dallasiellus* Berg was recently detected in a turf grass environment at north coast of Varadero [Marrero and Mayorga, 2014].

We conclude that *T. inconspicuus* is a new report of burrowing bug from our country; taking into account the wide distribution of this genus in the American Continent and the exotic character of this species for Cuba, systematic monitoring in the Varadero Golf are suggested to avoid damages on turf grass.

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