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## NEW GENUS FOR *THIONIA GIBBICOLLIS* DOZIER, 1931 (HEMIPTERA: AUCHENORRHYNCHA: FULGOROIDEA: NOGODINIDAE) FROM HAITI

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### ABSTRACT

A new genus, *Dozierana* gen. nov., is erected for *Thionia gibbicollis* Dozier, 1931 which is transferred from the family Issidae Spinola, 1839 to the family Nogodinidae Melichar 1898, subfamily Colpopterinae Gnezdilov, 2003. This new combination increases the fauna of Colpopterinae of Haiti Island up to 3 genera with 5 species. Accordingly, the family Issidae is no longer formally known from the island. *Dozierana* gen. nov. is characterized by wide metope, with distinct median carina running through postclypeus and very weak sublateral carinae, upper margin of metope concave; coryphe 3 times as wide as long medially; large ocelli present; pronotum short, with 4 lateral carinae, its anterior margin strongly convex and posterior margin strongly concave; mesonotum 7 times as long as pronotum along midline, greatly elevated (hump-shaped) along median carina, with two lateral carinae joined with median one in shape of inverted “V”; fore wings wide, with wide hypocoastal plate and rich cross-venation through whole wing, except subcostal area; basal cell large oblong-oval; costal vein with distinct upper keel appearing as a separate vein; clavus as long as whole wing, open; hind tibiae with single lateral spine subapically.

**Key words:** Carribean region, Colpopterinae, new combination, new genus, systematics

## НОВЫЙ РОД ДЛЯ *THIONIA GIBBICOLLIS* DOZIER, 1931 (HEMIPTERA: AUCHENORRHYNCHA: FULGOROIDEA: NOGODINIDAE) С ГАИТИ

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### РЕЗЮМЕ

Установлен новый род, *Dozierana* gen. nov., для *Thionia gibbicollis* Dozier, 1931, который, в свою очередь, перенесен из семейства Issidae Spinola, 1839 в семейство Nogodinidae Melichar, 1898, подсемейство Colpopterinae Gnezdilov, 2003. Благодаря этой новой комбинации фауна Colpopterinae острова Гаити возрастает до 3 родов с 5 видами. Соответственно семейство Issidae формально отсутствует на острове. *Dozierana* gen. nov. характеризуется широкой метопой с отчетливым медиальным килем, продолжающимся на постклипеус, и очень слабыми sublateralными киями, верхний край метопы выемчатый; корифа в 3 раза шире длины по средней линии; есть пара крупных глазков; переднеспинка короткая с 4 боковыми киями, ее передний край сильно выпуклый, а задний край сильно вогнут; среднеспинка в 7 раз длиннее переднеспинки по средней линии, с сильно выпуклым (горбовидным) медиальным килем и двумя латеральными киями, соединяющимися с медиальным килем в виде перевернутой буквы “V”; передние крылья широкие, с широкой гипокостальной лопастью и богатым поперечным жилкованием по всей длине, за исключением, субкостального

поля; базальная ячейка крупная, продолговато овальная; костальная жилка с отчетливым верхним килем в виде отдельной жилки; клавус такой же длины, как переднее крыло в целом, открыт; задние голени с одним боковым субапикальным шипом.

**Ключевые слова:** Карибский бассейн, Colpopterinae, новая комбинация, новый род, систематика

## INTRODUCTION

Since the genus *Thionia* was erected by Stål (1859), 64 Neotropical and 8 Nearctic species were included in this genus (Gnezdilov 2013). A revision of the genus was long overdue, and the matter discussed below proves its necessity.

Dozier (1931) described *Thionia gibbicollis* Dozier, 1931 from Haiti and pointed out that the “greatly elevated thorax...distinguish this unusual species” (Dozier 1931: 17). According to the diagnosis of *Thionia* given by Stål (1859) and recently updated by Gnezdilov (2018) and Gnezdilov and Dmitriev (2018), this genus is characterized as follows: metope with distinct median and sublateral carinae joined on its upper margin which is straight; fore wings elongate, rounded apically; pronotum without carinae; mesonotum slightly longer than pronotum, without hump; costal vein of fore wing without upper keel appearing as a separate vein. My study of the photos of the male paratype of *T. gibbicollis* confirmed that this species does not belong to *Thionia sensu stricto* and even has to be transferred to the family Nogodinidae Melichar, 1898.

## MATERIAL AND METHODS

Morphological terminology follows Gnezdilov (2003) and Gnezdilov et al. (2014). Fore wing venation with following modifications for vein abbreviations used for Issidae by Gnezdilov et al. (2014) and Gnezdilov and Bartlett (2018): R [number of vein branches], M, CuA, CuP, Pcu, A [ordinal number of vein from anterior wing margin]. According to this scheme radius (R) corresponds with “ScP+R(+MA) and RA, RP” and median (M) corresponds with “MP” of Bourgoïn et al. (2014).

The photos were taken using a Nikon DS-Fi2 camera mounted on a Nikon SMZ 1500 dissecting microscope with the aid of the Nikon DS-L3 camera controller. Images were stacked using Helicon Focus

6. The drawings were made using Leica MZ95 light microscope with camera lucida attachment.

The type specimen examined is deposited in the Smithsonian Institution, National Museum of Natural History, Washington, D.C., USA (USNMNH).

## SYSTEMATICS

### Family Nogodinidae Melichar, 1898

### Subfamily Colpopterinae Gnezdilov, 2003

### Tribe Colpopterini Gnezdilov, 2003

### Genus *Dozierana* gen. nov.

**Type species:** *Thionia gibbicollis* Dozier, 1931, by monotypy.

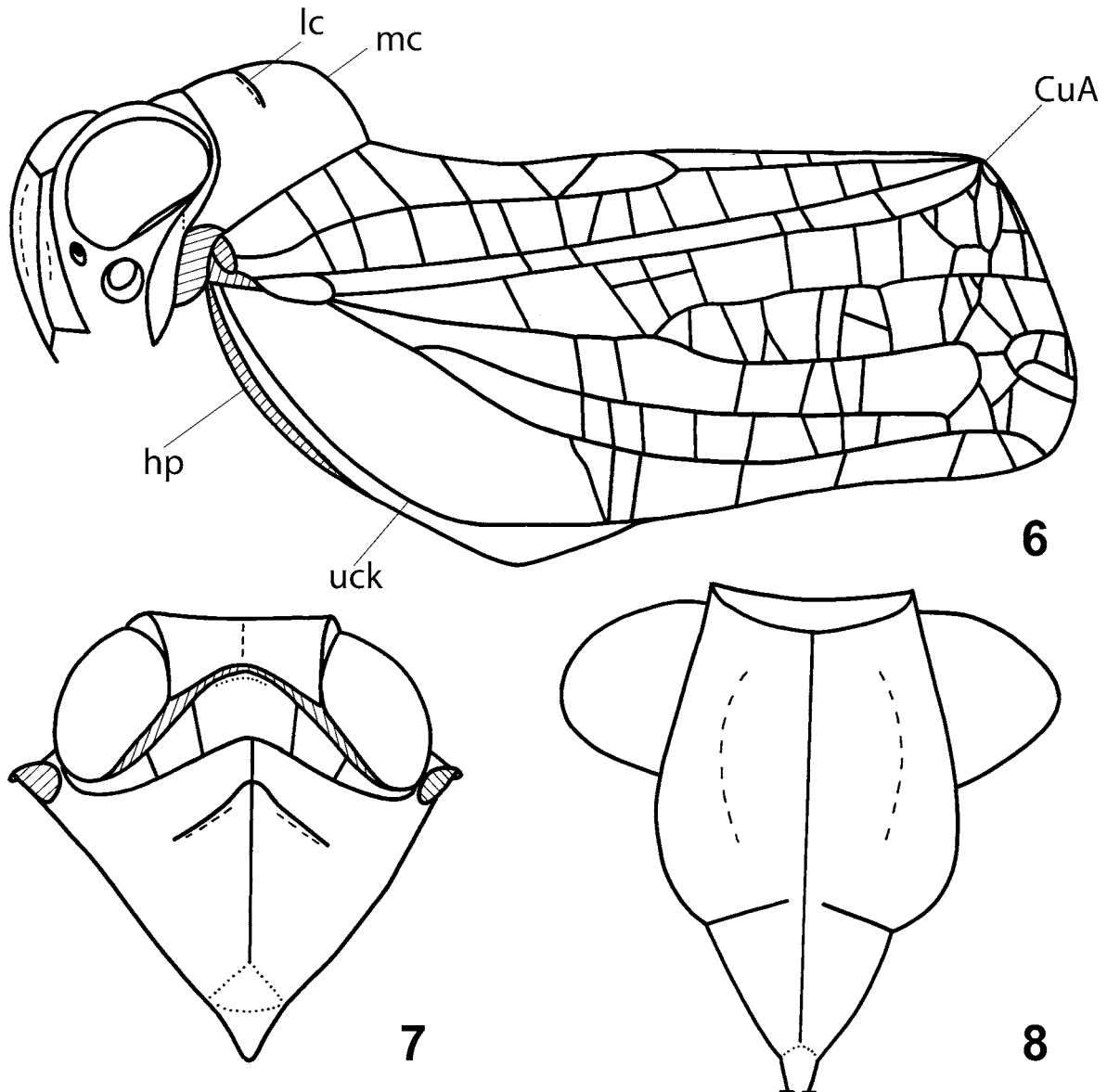
**Etymology.** The genus is named in honour of Dr. Herbert Lawrence Dozier who described the type species.

**Diagnosis.** Metope with only median carina distinct (Figs 3, 8). Fore wings wide, not narrowing, but widely truncate apically, with wide hypocostal plate (Figs 2, 6). Clavus as long as whole wing. Hind wings well developed, as long as fore wings. Mesonotum greatly elevated (hump-shaped) along median carina (Figs 2, 6, *mc*). Hind tibiae with single lateral spine subapically.

**Description.** Metope wide, enlarged below eyes, with distinct median carina running from its upper margin through postclypeus; sublateral carinae very weak (Figs 3, 8). Upper margin of metope concave. Metopoclypeal suture distinct. Coryphe transverse, 3 times as wide as long medially, without carina (Figs 1, 7). Large ocelli present. Pronotum short, with 4 lateral carinae; anterior margin strongly convex; posterior margin strongly concave (Fig. 7). Mesonotum 7 times as long as pronotum along midline, greatly elevated (hump-shaped) along median carina, with two lateral carinae joined with median one in shape of inverted “V” (Figs 1, 6, *mc*, *lc*, 7). Tegulae large. Fore wings wide, not narrowing, but



Figs 1–5. *Dozierana gibbicollis* (Dozier), male paratype. 1 – dorsal view, 2 – lateral view, 3 – face, 4 – abdomen, ventral view, 5 – labels.



**Figs 6–8.** *Dozierana gibbicollis* (Dozier), male paratype. 6 – lateral view, 7 – head, pro- and mesonotum, dorsal view, 8 – face. Abbreviations: hp – forewing hypocostal plate, lc – lateral carina of mesonotum, mc – median carina of mesonotum, uck – upper keel of forewing costa vein, CuA – apex of cubitus anterior.

obliquely truncate apically, with wide hypocostal plate and rich cross-venation through whole wing, except subcostal area (Figs 2, 6, *hp*). Costal vein with distinct upper keel appearing as a separate vein (Fig. 6, *uck*). Basal cell large, oval. Forewing vein sequence: *R* 2, furcating on short distance from basal cell; *M* 2, furcating near mid of wing; *CuA* 1, running into apex of clavus (Fig. 6, *CuA*). Clavus as long as whole wing, open – *Pcu*+*A*<sub>1</sub>, runs into apex of clavus.

*Pcu* fusing *A*<sub>1</sub> after middle of clavus (Figs 1, 6). Hind tibiae with single lateral spine subapically and 5 apical spines (Fig. 2).

**Composition.** The type species.

***Dozierana gibbicollis* (Dozier, 1931), comb. n.** (Figs 1–8)

*Thionia gibbicollis* Dozier, 1931: 17, fig. 12.

**Type material examined.** Paratype, male, “Haiti / W.A. Hoffman”, “Th. / gibbicollis / Doz / Manus.”, “JNZ\_AA0332” (Fig. 5) (USNMNH).

**Note.** Dozier (1931) mentioned in the original description the female paratype with the labels listed above deposited in the U.S. National Museum, however, examination of abdomen photo of this paratype indicates a male – plates of styles are well visible (Fig. 4).

## DISCUSSION

According to recently revised classification of the family Nogodinidae (Gnezdilov 2017) *Dozierana* gen. nov. is placed in the subfamily Colpopterinae due to the following characters: metope with distinct median carina running through postclypeus; fore wings with large oblong-oval basal cell, rich cross-venation, wide subcostal area, and wide hypocostal plate; *R* 2, *M* 2 *CuA* 1; clavus long; *CuA* running into apex of clavus; costal vein with distinct upper keel appearing as a separate vein; large mesonotum, with median and lateral carinae joined anteriorly. According to the radius of the fore wings furcating on a distance from the basal cell, *Dozierana* gen. nov. is close to *Ugoa* Fennah, 1945, *Caudibeccus* Gnezdilov et O’Brien, 2008, and *Bumerangum* Gnezdilov, 2012. The two first genera are distributed in the Caribbean, and the last one is known from South Africa (Gnezdilov 2012). *Dozierana* gen. nov. differs from all other Colpopterinae genera by the strong hump of the mesonotum.

Including the new combination above a total of 3 genera with 5 species of Colpopterinae are currently known from Haiti Island – *Colpoptera clerodendri* Dozier, 1931, *C. insularis* Dozier, 1931, *C. nana* Dozier, 1931, *Dozierana gibbicollis* (Dozier, 1931) comb. nov., *Jamaha elevans* (Walker, 1858). The latter species was originally described from Jamaica (Walker 1858) and its record from Haiti as *Ormenis elevans* by Melichar (1902) is in need of confirmation. Thus the family Issidae is now formally absent in Haiti Island until other representatives of the family will be discovered there.

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