### New species of the genus Latilica (Homoptera, Cicadina, Issidae) from Lebanon

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### SHORT COMMUNICATIONS

# Three New Species of the Genus Latilica (Homoptera, Cicadina, Issidae) from Lebanon

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Abstract—The illustrated descriptions of three new species of the genus Latilica from Lebanon are given. Latilica libanensis sp. n. is closely related to L. maculipes in the structure of the male genitalia, and differs from it in the long, narrow, and pointed apical processes of the male anal tube, style with a weakly convex hind margin before the capitulum, posterior margin of female sternite VII bearing a long trapezoidal median process, and gonoplacs forming large projections. Latilica melichari sp. n. and L. abdulnouri sp. n. differ from all other species of the genus in the presence of a pair of subapical semicircular processes of the phallobase. Hysteropterum retamae Linnavuori, 1962, Kovacsiana petrica Dlabola, 1985, and K. forticeps Dlabola, 1985 are included into the genus Latilica.

According to the current classification (Emeljanov, 2001; Gnezdilov, 2003; Gnezdilov and Mazzoni, 2004), the genus Latilica Emeljanov 1971 comprises the following 10 species (including those described below) widely distributed in southeastern and Central Europe, European Mediterranean basin, Near East, Tunisia, and Algeria: L. maculipes (Mehchar, 1906), L. tunetana (Matsumura, 1910), L. oertzeni (Matsumura, 1910), L. libanensis sp. n., L. melichari sp. n., L. abdulnouri sp. n., L. retamae (Linnavuori, 1962) comb. n. (Hysteropterum retamae Linnavuori, 1962), L. petrica (Dlabola, 1985) comb. n. (Kovacsiana petrica Dlabola, 1985), L. antalyica (Dlabola, 1986), and L. forficeps (Dlabola, 1986) comb. n. (Kovacsiana forficeps Dlabola, 1986). The center of the species richness and, probably, origin of the genus is situated in eastern Mediterranean basin, where 9 out of 10 known species have been recorded.

In the present study, 3 new species of the genus *Latilica* from Lebanon have been described. In addition to the characters of the male genitalia conventially used for identification of species, the structure of the female ovipositor and sternite VII was also analyzed.

The type specimens of the new species described are deposited in the Zoological Institute, Russian Academy of Science (St. Petersburg) and in a collection of Dr. H. Abdul-Nour (Jdeidet-et-Math, Lebanon). All measurements are given in millimeters.

Litilica libanensis Gnezdilov, sp. n. (Fig. 1, 1-7)

Material. Holotype: &, Lebanon, "Enden (forêt)," 1500 m, 27.VIII.1994 (H. Abdul-Nour), on Quercus

cerris pseudocerris and Q. infectoria. Paratypes: Lebanon:  $1 \circlearrowleft$ , "Ehden (forêt)," 1500 m, 27.VIII.1994, on Q. cerris pseudocerris and Q. infectoria;  $5 \circlearrowleft$ , same locality, 9.IX.1994, on Q. calliprinos and Q. infectoria;  $2 \circlearrowleft$ ,  $1 \circlearrowleft$ , same locality, 20.IX.2000, "Malaise trap;"  $1 \circlearrowleft$ , same locality, 28.XII.2001, "intercept trap;"  $3 \circlearrowleft$ , "Qartaba," 4.XI.1983, on Q. calliprinos;  $2 \circlearrowleft$ , "Qartaba (Jbeil)," 30.IX.1984, "glu trap;"  $1 \circlearrowleft$ , same locality, 1200 m, 19.VIII.1984, "glu trap;"  $2 \circlearrowleft$ , same locality, 1200 m, VIII.1999;  $1 \circlearrowleft$ , "Zebdine (Jbeil)," 28.X.1984, "low plants" (H. Abdul-Nour).

Description. Metope slightly widened toward clypeus, with distinct median and sublateral carinae; sublateral carinae widely arcuately curved in upper part. Coripha transverse (width between eyes 1.5–1.7 times median length), with obtuse-angularly projecting anterior margin and arcuately concave posterior margin; surface slightly concave. Scutellum with 3 depressions. Longitudinal and cross-veins of fore wing markedly prominent. Dorsal surface yellowish-brownish. Metope with dark brown to black band in upper part and pale band in middle part. Fore wing occasionally dark brown with pale brownish spots. Underside yellowish pale brownish. Legs with brownish spots. Spines and setae of legs dark brown to black.

Male. Anal tube long, rather slender (Fig. 1, 3), with upper angles in the form of long slender processes narrowed toward apex and pointing downwards (Fig. 1, 2). Dorsolateral lobes of phallobase with 1 pair of claw-shaped apical processes and 1 pair of triangular subapical processes (Fig. 1, 1), without marginal processes above hook foveae. Ventral lobe of phallo-

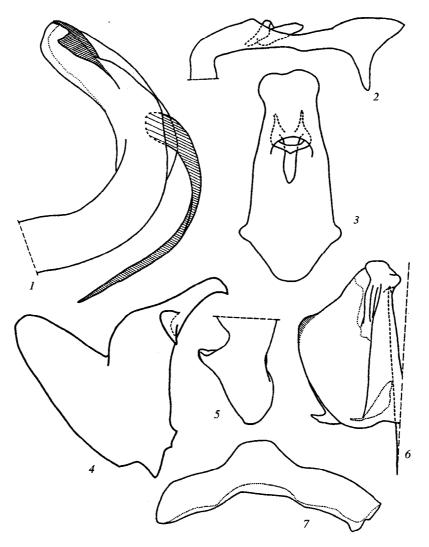


Fig. 1. Male and female genitalia and female sternite VII in *Latilica libanensis* sp. n.: (1) penis, lateral view; (2) male anal tube, lateral view; (3) male anal tube, dorsal view; (4) stylus, lateral view; (5) capitulum of stylus, dorsal view; (6) lobe of gonoplacs, dorsal view; (7) sternite VII of female, ventral view.

base long, wide, narrowed toward apex. Posterior margin of stylus weakly curved at base of capitulum, caudodorsal angle narrowly rounded (Fig. 1, 4). Capitulum of stylus wide, narrowed toward apex in dorsal view (Fig. 1, 5).

**Female.** Posterior margin of sternite VII bearing long, wide median process with trapezoid apex (Fig. 1, 7). Gonoplacs with large semicircular prominences (Fig. 1, 6). Posterior margin of gonocoxite VIII lobiform, convex. Endogonocoxal process bifurcate

apically. Lateral group of anterior connecting plate of gonapophysis VIII with 5 teeth (3 teeth with carinae).

Length: males 4.2-5.0; females 5.2-5.8.

**Diagnosis.** The new species differs from the closely related *Latilica maculipes* (Mehchar, 1906) in the long, slender, apically narrowed processes of the upper angles of the male anal tube; posterior margin of the stylus weakly curved at the base of the capitulum; long trapezoid median process of the posterior margin of

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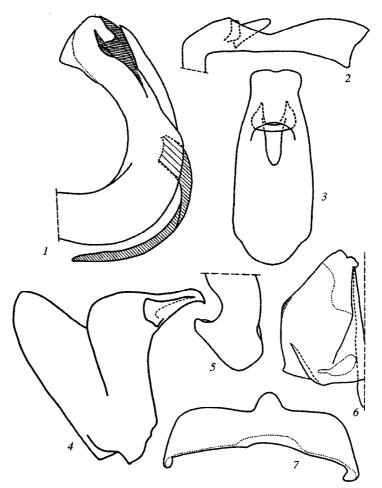


Fig. 2. Male and female genitalia and female sternite VII in Latilica melichari sp. n.: (1-7) as in Fig. 1.

female sternite VII; and large prominences of the gonoplacs.

**Etymology.** The species name originates from the name "Lebanon."

## Litilica melichari Gnezdilov, sp. n. (Fig. 2, 1–7)

Material. Holotype:  $\circlearrowleft$ , Lebanon, "Qartaba (Jbeil)," 1200 m, 13.IX.1987 (H. Abdul-Nour). Paratypes: Lebanon:  $1 \circlearrowleft$ , "Qartaba (Jbeil)," 1200 m, 13.IX.1987;  $1 \circlearrowleft$ , 1  $\circlearrowleft$ , "Baskinta (Matn)," 17.IX.1994, on *Quercus infectoria*;  $1 \circlearrowleft$ , "Hiyata (Kesrouane)," 24.IX.1994, on *Q. cerris pseudocerris*;  $2 \circlearrowleft$ ,  $1 \circlearrowleft$ , "Zedbine (Jbeil)," 8.VIII.1987;  $1 \circlearrowleft$ , 3  $\hookrightarrow$ , same locality, 28.X.1984, "low plants;"  $1 \circlearrowleft$ , same locality, X.1999, "Malaise trap;"  $2 \circlearrowleft$ ,  $1 \hookrightarrow$ , "Maad (Batroun)," 21.VI.1995, "low

plants;" 1  $\circlearrowleft$ , "hbaline (Jbeil)," 400 m, 6.VI.1995, "low plants;" 1  $\circlearrowleft$ , "Ehden (forêt)," 1500 m, 9.IX.1994; 1  $\circlearrowleft$ , 4  $\circlearrowleft$ , "Al-Minieh (Tripoli)," 25.XI.2001, "Malaise trap" (H. Abdul-Nour).

**Description.** Metope weakly widened toward clypeus, with sublateral carinae gently arcuate or converging at approximately obtuse angle. Coripha transverse (width to length ratio 1.5–1.8), with gently arcuately convex anterior margin and gently arcuately concave posterior margin. Scutellum with 3 depressions. Longitudinal veins of fore wing markedly prominent, cross-veins less strongly so. Body yellowish-brownish. Metope with dark brown to black band at apex, occasionally with pale spot in middle part. Spines and setae of legs dark brown to black.

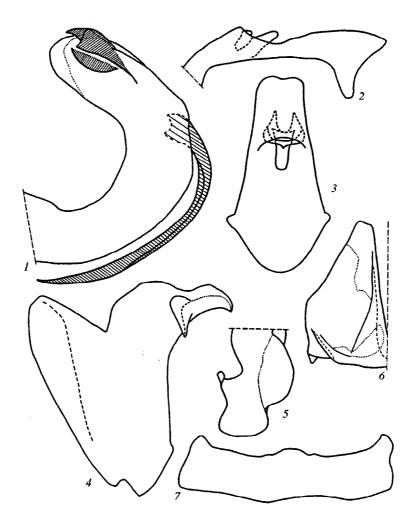


Fig. 3. Male and female genitalia and female sternite VII in Latilica abdulnouri sp. n.: (1-7) as in Fig. 1.

Male. Anal tube long, rather slender (Fig. 2, 3); with upper angles bearing short triangular processes pointing downwards (Fig. 2, 2). Dorsolateral lobes of phallobase with 1 pair of apical claw-shaped, 1 pair of subapical elongate triangular, and 1 pair of subapical semicircular processes (Fig. 2, 1). Margins of dorsolateral lobes with triangular processes above hook foveae. Ventral lobe of phallobase long, wide, narrowed to apex. Posterior margin of stylus gently hump-shaped at base of capitulum, caudodorsal angle narrowly rounded (Fig. 2, 4). Capitulum of stylus wide, very weakly narrowed to apex in dorsal view (Fig. 2, 5).

Female. Posterior margin of sternite VII with short narrow semicircular median process (Fig. 2, 7). Gonoplacs with low transverse prominences (Fig. 2, 6). Posterior margin of gonocoxite VIII lobiform, convex. Endogonocoxal process bifurcate apically. Lateral group of anterior connecting plate of gonapophysis VIII with 4 tooth (3 teeth with carinae, 4th tooth smoothened).

Length: males 3.8-4.5; females 4.2-5.3.

**Diagnosis.** The new species differs from all the congeners in the following characters: upper angles of male anal tube bearing short processes; 1 pair of subapical semicircular processes present on dorso-

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lateral lobes of phallobase; posterior margin of stylus gently hump-shaped curved at base of capitulum; and median process of posterior margin of female sternite VII short, narrow, semicircular.

**Etymology.** The species was named for L. Melichar, an eminent Czech entomologist.

Latilica abdulnouri Gnezdilov, sp. n. (Fig. 3, 1–7)

Material. Holotype:  $\circlearrowleft$ , Lebanon, "Ehden (forêt)," 1500 m, 27.VIII.1994 (H. Abdul-Nour), on *Quercus cerris pseudocerris*. Paratypes: Lebanon:  $2 \circlearrowleft$ ,  $7 \circlearrowleft$ , "Ehden (forêt)," 1500 m, 27.VIII.1994, on *Q. cerris pseudocerris*;  $3 \circlearrowleft$ ,  $5 \circlearrowleft$ , same locality, 9.IX.1994, on *Q. infectoria*;  $5 \circlearrowleft$ ,  $2 \circlearrowleft$ , same locality, 28.XII.2001, "intercept trap;"  $1 \circlearrowleft$ , "Dahr es-Souane (Math)," VII.1999;  $2 \circlearrowleft$ , "Mazraat Kfar, Zebiane—al Qanater (Kesrouane)," 8.VIII.1987, on *Q. cerris pseudocerris*;  $3 \circlearrowleft$ ,  $5 \circlearrowleft$ , same locality, 7.IX.1994, on *Q. infectoria*;  $3 \circlearrowleft$ ,  $3 \circlearrowleft$ , "Hiyata (Kesrouane)," 24.IX.1994, on *Q. cerris pseudocerris*;  $1 \circlearrowleft$ , "Sahel. Jbeil," 14.VII. 1984, on *Q. calliprinos*;  $2 \circlearrowleft$ ,  $2 \hookrightarrow$ , "Baskinta (Math)," 17.IX.1994, on *Q. infectoria* (H. Abdul-Nour).

**Description.** Metope weakly widened toward clypeus. Median carina of metope frequently smoothened and absolutely disappearing before fusion with sublateral carinae gently arcuately converging at apex of metope. Coripha slightly wider than long (width 1.5–1.7 times length), with sharply obtuse-angularly projecting anterior margin and gently arcuately concave posterior margin. Scutellum with 3 depressions. Longitudinal veins of fore wing markedly prominent, cross-veins less strongly so. Body yellowish-brownish to dark brown. Fore wing occasionally with dark brown bands. Femora occasionally with brownish stripes, tibiae occasionally with brownish spots. Spines and setae of legs dark brown to black.

**Male.** Anal tube long, rather slender (Fig. 3, 3), with upper angles in the form of rather long processes narrowed to apex and pointing downwards (Fig. 3, 2). Dorsolateral lobes of phallobase with 1 pair of apical claw-shaped, 1 pair of subapical triangular, and 1 pair of subapical semicircular processes (Fig. 3, 1), without

marginal processes above hook foveae. Ventral lobe of phallobase long, wide, narrowed to apex. Posterior margin of stylus sharply hump-shaped curved at base of capitulum, caudodorsal angle narrowly rounded (Fig. 3, 4). Capitulum of stylus wide, not narrowed to apex in dorsal view (Fig. 3, 5).

**Female.** Posterior margin of sternite VII with short wide semicircular median process (Fig. 3, 7). Gonoplacs without prominences (Fig. 3, 6). Posterior margin of gonocoxite VIII lobiform, straight, more convex in distal part. Endogonocoxal process bifurcate apically. Lateral group of anterior connecting plate of gonapophysis VIII with 3 tooth (2 teeth with carinae).

Length: males 3.7-4.6; females 4.4-5.0.

**Diagnosis.** The new species is closely related to *Latilica melichari* sp. n. in the presence of 1 pair of subapical semicircular processes on the dorsolateral lobes of the phallobase and differs in the upper angles of the male anal tube forming long processes, posterior margin of the stylus sharply hump-shaped curved at the base of the capitulum, and posterior margin of female sternite VII forming a wide semicircular median process.

**Etymology.** The name was named for Dr. H. Abdul-Nour.

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