

**A new species of *Alosterna* Mulsant, 1863 from Lebanon,
and notes on other species (Coleoptera: Cerambycidae)**

András MÁRKUS¹ & Tamás NÉMETH^{2*}

¹*Gárdonyi u. 16/B, H-5700 Gyula, Hungary. E-mail: andras.markus@gmail.com*

²*Hungarian Natural History Museum, Department of Zoology,*

Baross u. 13, H-1088 Budapest, Hungary. E-mail: nemeth.tamas@nhmus.hu

Abstract – *Alosterna libani* sp. n. from Lebanon is described. First records of *Phymatodes testaceus* (Linnaeus, 1758) and *Pedostrangalia riccardoi carmelita* Sama, 1996 for the fauna of Lebanon are given. *Libanoclytus tommasoï* Sama, Rapuzzi et Kairouz, 2010 is recorded from Syria for the first time. The host plants of *Libanoclytus tommasoï* are mentioned for the first time. With 22 figures and one table.

Key words – host plants, Middle East, new country records, Syria

INTRODUCTION

Two entomological trips to the Mount Lebanon range were carried out in May 2015 and June 2016 in the frame of the mutual agreement between the Holy Spirit University of Kaslik (USEK, Jounieh, Lebanon) and the Hungarian Natural History Museum (HNHM, Budapest, Hungary) for exploring biodiversity. Although the Cerambycidae fauna of Lebanon is quite well studied (SAMA & RAPUZZI 2000, 2002, SAMA *et al.* 2010, COCQUEMPOT *et al.* 2016), while identifying the material recently collected in Lebanon we found one species new for science, and two additional species representing new records for the country.

METHODS

Measurements – Body length is measured along midline from the anterior margin of the frons to the apex of the elytra; width is measured across the broadest part of the body.

* Corresponding author

Abbreviations –The following abbreviations refer to the collections in which the investigated material is deposited: HNHM = Hungarian Natural History Museum, Coleoptera Collection, Budapest, Hungary; PCAM = private collection of András Márkus, Gyula, Hungary; PCAK = private collection of Attila Kotán, Budapest, Hungary; PCKSZ = private collection of Kálmán Székely, Budapest, Hungary.

***Alosterna libani* sp. n.**

(Figs 1–2, 5, 8, 11)

Type material – Holotype, male: “LEBANON, Northern gov., Bcharre env., 1 km E Ariz, Horsh Arz el-Rab, ancient Cedrus forest, swept & singled, 34° 14' 33" N, 36° 2' 59" E, 1900 m, 20.V.2015, leg. A. Márkus & T. Németh” (HNHM). Paratypes: 4 males, with the same data as holotype (2 PCAM, 2 HNHM); 1 female: same but “singled at night, 27.V.2015, leg. M. Boustani, A. Márkus, T. Németh & M. Rehayem” (PCAM).

Description – Body length 7.0–8.1 mm (males), 8.4 mm (female); body width 1.9–2.0 mm (males), 2.4 mm (female). Body, including antennae and legs black, palps ferruginous, elytra brownish-yellowish, covered with yellow-gold hairs.

Male (Fig. 1). Head short, wide, covered with sparse, semierect pubescence directed backwards. Frons and vertex finely and densely punctate with uniformly sized punctures. Median furrow partly visible, with punctation sparser, interspaces here shiny. Temple short, moderately narrowed backwards. Last maxillary palpomere securiform, posteriorly widened, obliquely truncate.

Antenna relatively short, not reaching third abdominal ventrite. Antennomeres I–V gradually widened apically, their surface shiny, with coarse and dense punctation and long semierect hairs. Antennomeres VI–XI parallel-sided, surface matt, microreticulate, with very short, white, recumbent pubescence. Second antennomere is the shortest, length ratio of antennomeres 7 : 2 : 7 : 5.5 : 6.5 : 5.5 : 5 : 4.5 : 4.5 : 4 : 6.

Pronotum bell-shaped, elongate, slightly longer than wide at base. Pubescence semierect. Punctation dense and coarse, interspaces narrower than puncture diameter. Some paratypes with shallow shiny impunctate median furrow. Posterior corners with erected hairs.

Scutellum black, elongate, triangular, densely punctate.

Elytra about 2.5 times longer than wide, parallel-sided, apices rounded. Surface shiny, with fine punctation, distance between punctures on average equal or slightly bigger than puncture diameters. Some paratypes with sparser punctation in anterior third or fourth, interspaces here 1.5× broader than puncture diameters. Punctation denser posteriorly, where interspaces narrower. Pubescence moderately dense, long, semierect.



Figs 1–4. *Alosterna* species, dorsal view: 1 = *A. libani* sp. n., holotype, male, 2 = *A. libani* sp. n., paratype, female, 3 = *A. pauli* Pesarini, Rapuzzi et Sabbadini, 2004, male, 4 = *A. anatolica* Adlbauer, 1992, male. – **Figs 5–7.** Tibia of *Alosterna* species: 5 = *A. libani* sp. n., 6 = *A. pauli*, 7 = *A. anatolica*.
Not to scale

Legs. Femur slightly widened, narrowed distally. Tibia moderately widened apically. Hind tibia without keel, straight (Fig. 5). First metatarsomere longer than second and third combined.

Male genitalia as in Figs 8 and 11.

Female (Fig. 2). Similar to male, with slightly wider pronotum and elytra. Punctuation of posterior third of elytra denser, where intervals narrower. Pubescence of pronotum and elytra slightly longer. Antenna shorter. First metatarsomere narrower.

Diagnosis – The genus *Alosterna* Mulsant, 1863 contains eight species (one with seven subspecies) in the Palaearctic region (DANILEVSKY 2016). *A. libani* sp. n. is morphologically similar to *A. pauli* Pesarini, Rapuzzi et Sabbadini, 2004 (Fig. 3), described from Greece and *A. anatolica* Adlbauer, 1992 (Fig. 4), described from Turkey. These three species share the unicoloured brownish-yellowish elytra, black femur and tibia, and blackish antenna not reaching apex of elytra. *Alosterna libani* sp. n. can be distinguished by the character states listed in Table 1.

Biology – The male specimens of the newly described species were collected at daytime by beating the flowering branches of *Quercus cedrorum* Kotschy. The only female was collected at night on bark-free part of *Cedrus libani* A. Rich. in the ancient Forest of Cedars of God (Horsh Arz el-Rab), near Bcharre, North Lebanon (Fig. 26).

Etymology – The specific epithet is derived from the country of Lebanon.

Comparative material – *Alosterna anatolica* Adlbauer, 1992: “S Turkey, Avlanbeli Geçidi, 1120 m, 25 km S Elmali, 36° 32’ N, 29° 59’ E, 13–16.V.2006, leg. P. Kabátek” (1 male, PCAM). *Alosterna pauli* Pesarini, Rapuzzi et Sabbadini, 2004: “Greece, Akhaia env., Mts Aroania, 15 km W Kalavrita, 17.V.2011. leg. A.

Table 1. Character states distinguishing males of *Alosterna libani* sp. n., *A. anatolica* Adlbauer, 1992 and *A. pauli* Pesarini, Rapuzzi et Sabbadini, 2004 (the females cannot be identified with certainty)

Character	<i>A. libani</i> sp. n.	<i>A. anatolica</i>	<i>A. pauli</i>
pronotum shape	slightly longer than wide	as long as wide	as long as wide
hind tibia	simple, straight (Fig. 5)	with keel, straight (Fig. 7)	simple, slightly curved (Fig. 6)
first metatarsomere	shorter, length/width ratio 5.4-6.4:1	longer, length/width ratio 7:1	longer, length/width ratio 7:1
apical part of parameres	wider, with apex almost flat, pointed at inner part (Fig. 8)	thin, curved, pointed at apex, symmetric (Fig. 9)	thin, with asymmetric apex (Fig. 10)
parameres shape	shorter and broader (Fig. 11)	shorter and broader (Fig. 12)	longer and thinner (Fig. 13)

Kotán, A. Márkus & T. Németh” (1 female, PCAM); “Ellas, Peloponez, Aghios Petros, 20.V.2009, leg. A. Woźniak” (1 male, PCAM); “Greece, Peloponnese, 32 km south from Tripoli, 20.V.2009, leg. Marcin Walczak” (1 male, PCAM); “Greece, Peloponnese, distr. Ahaia, Erimanthos Mts, 1 km E Kalentzi, *Abies* forest, 37° 56' 57.2" N, 21° 46' 17.6" E, 1197 m, beaten from *Crataegus* sp., 10.VI.2015, leg. P. Brůha, J. Mertlik, T. Németh & B. Zbuzek” (4 males, 1 female, PCAM, 3 males, HNHM).

Cortodera colchica colchica Reitter, 1890

(Figs 14–18)

Material examined – “LEBANON, Northern gov., Bcharre env., 4 km E Ariz, singled, 34° 14.645' N, 36° 5.166' E, 2830 m, 24.VI.2016, leg. M. Boustani, A. Kotán, P. Nemes, T. Németh, M. Rehayem & W. Yammine” (59 males, 5 females, HNHM, 93 males, 68 females, PCAK, 12 males, PCAM, 5 males, PCKSZ).

Remarks – According to DANILEVSKY (2016) the populations in Iran, Lebanon and Syria may represent a new species or subspecies.

Leiopus syriacus syriacus (Ganglbauer, 1884)

(Figs 19–20, 24)

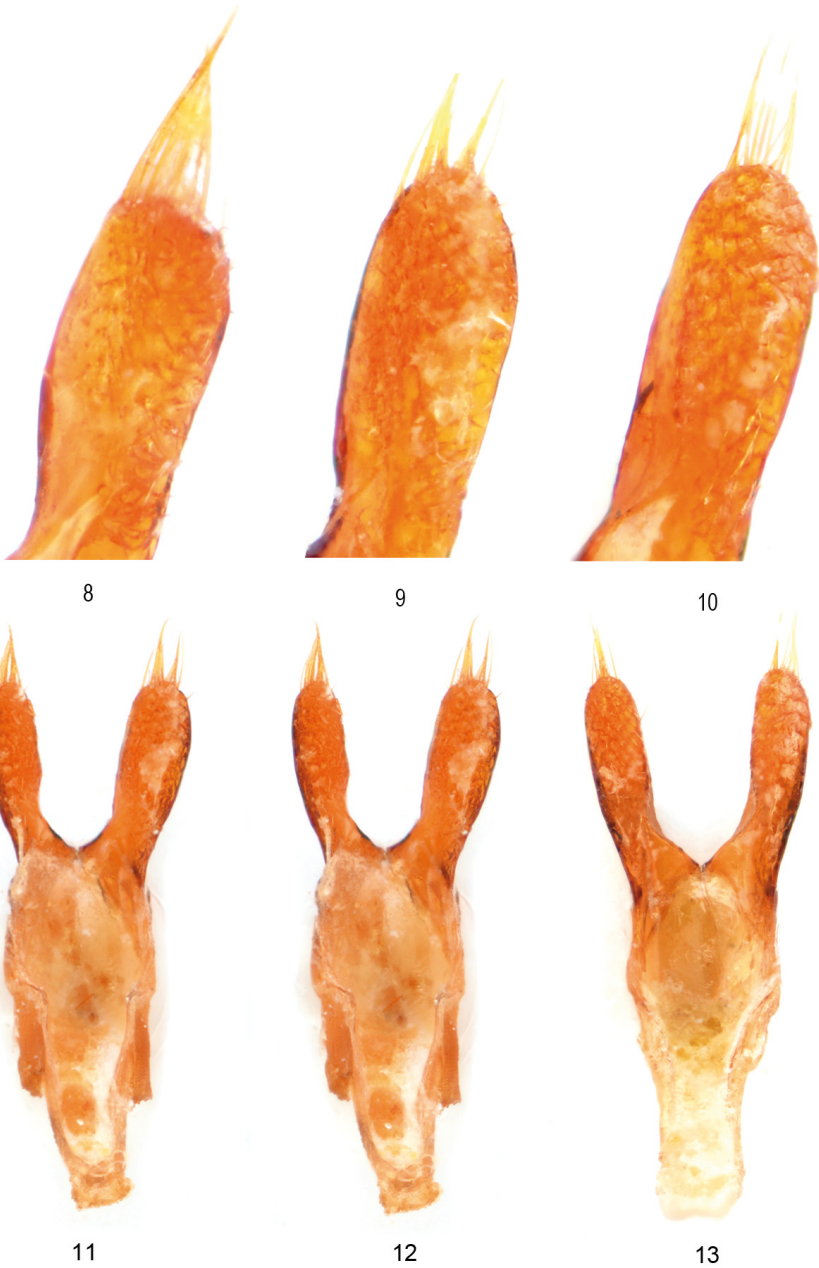
Material examined – “LEBANON, Northern gov., Bcharre env., Quadisha Valley, beaten, 34° 14' 57" N, 35° 58' 34" E, 970 m, 22.VI.2016, leg. M. Boustani, A. Kotán, P. Nemes, T. Németh & W. Yammine” (1 male, HNHM, 2 females, 1 male, PCAK); “LEBANON, Northern gov., Tannourine env., 2 km N Harissa, stream valley, reared from *Juglans regia*, 34° 12' 22" N, 35° 55' 17" E, 1460 m, 25.V.2015, leg. O. Akiki, A. Márkus, N. Nemer & T. Németh” (2 females, HNHM, 2 males, 1 female, PCAK, 5 males, 2 females, PCAM).

Remarks – Although SAMA *et al.* (2010) mentioned *L. syriacus syriacus* from Lebanon, the collected specimens morphologically fit better the original description of *L. syriacus tauricus* Sama et Rapuzzi, 2010 from Turkey. We had no possibility to examine any specimens of *L. syriacus syriacus*, therefore refrain from making any taxonomic conclusion.

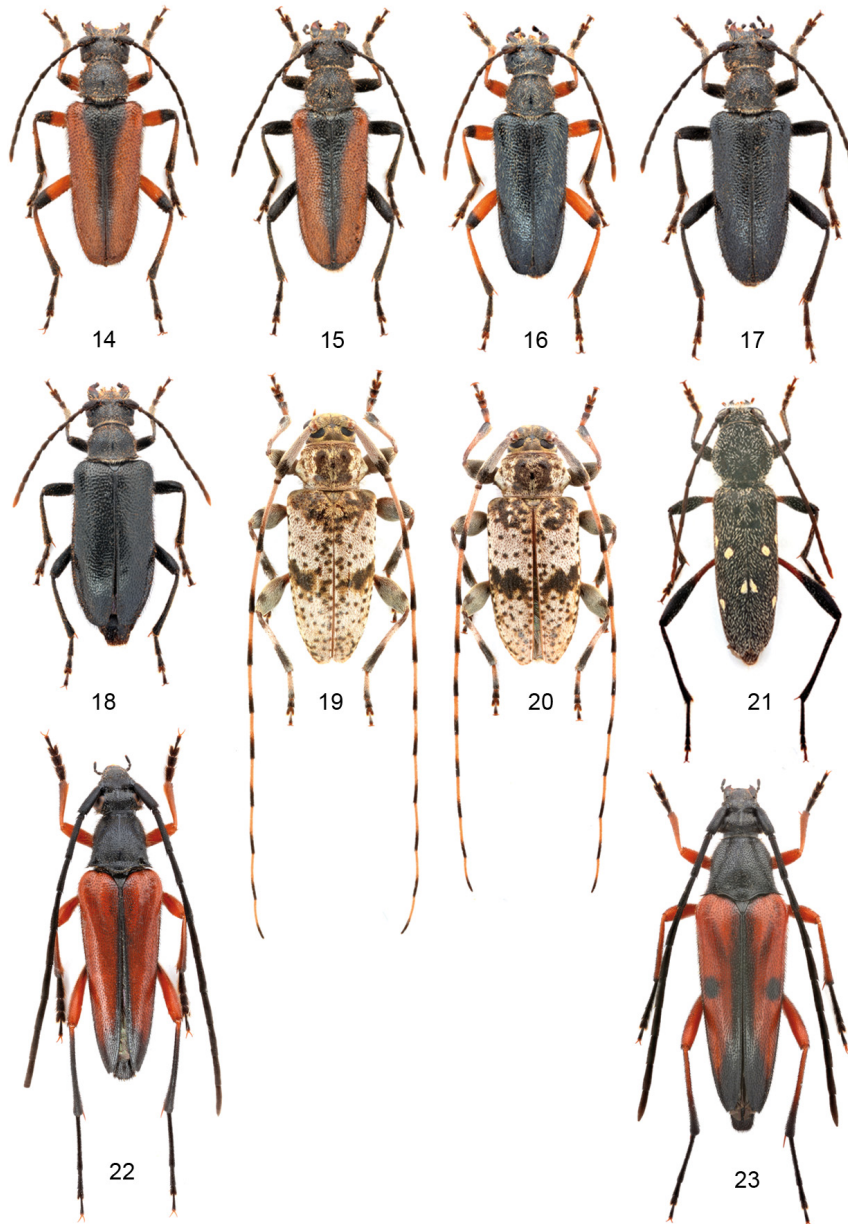
Libanoclytus tommasoi Sama, Rapuzzi et Kairouz, 2010

(Fig. 21, 25)

Material examined – “LEBANON, Northern gov., Bcharre env., Quadisha Valley, 34° 14' 57" N, 35° 58' 34" E, 970 m, from dry branches of *Morus* sp., 26.V.–11.VI.2015, leg. M. Boustani, A. Márkus, T. Németh & M. Rehayem” (16 males, 11 females, PCAM, 1 male, 1 female, HNHM); “LEBANON, Northern gov.,



Figs 8–10. Apical part of parameres of *Alosterna* species, dorsolateral view: 8 = *A. libani* sp. n., 9 = *A. anatolica* Adlbauer, 1992, 10 = *A. pauli* Pesarini, Rapuzzi et Sabbadini, 2004. – **Figs 11–13.** Tegmen of *Alosterna* species, dorsal view: 11 = *A. libani* sp. nov., 12 = *A. anatolica*, Fig. 13 = *A. pauli*.
Not to scale



Figs 14–23. Cerambycidae species, dorsal view: 14–17 = *Cortodera colchica colchica* Reitter, 1890 from Bcharre env., differently coloured males, 18 = female, 19 = *Leiopus syriacus syriacus* (Ganglbauer, 1884) from Tannourine env., male, 20 = female, 21 = *Libanoclytus tommasoï* Sama, Rapuzzi et Kairouz, 2010 from Syria, male, 22 = *Podostrangalia riccardoi carmelita* Sama, 1996 from Qadisha Valley, male, 23 = female. Not to scale

Bcharre env., Quadisha Valley, singled from/on *Ficus carica*, 34° 14' 57" N, 35° 58' 34" E, 970 m, 22.VI.2016, leg. M. Boustani, A. Kotán, P. Nemes, T. Németh & W. Yammine" (1 male, PCAK, 1 male, HNHM). "SYRIA, occ., muh. Al Ladhqiyah, Mts. Aqra, 10 km S Kasab N 35° 51.471', E 35° 58.731', 540 m, 9.V.2005, leg. A. Márkus, ex l. *Cercis siliquastrum*" (1 male, PCAM); "SYRIA, Prov. Latakia, As Samra, coast, macchia, ex l. *Cercis siliquastrum*, 3.VI.2010–VII.2013, leg.: A. Kotán, E. Mizsei, T. Németh & N. Rahmé" (1 male, 1 female, PCAK).

Remarks – A species described from Lebanon. The host plant was unknown at the time of description. The Lebanese specimens emerged in 2015 from cut down, dry branches of *Morus* sp. (2–6 cm in diameter). In 2016, one male specimen (Fig. 25) was hand-collected from a dry branch of *Ficus carica*, and another specimen was found inside a dead branch (3 cm in diameter) in the Quadisha Valley (Fig. 27). Specimens from Syria were reared from branches of *Cercis siliquastrum*. First record for Syria.

Phymatodes testaceus (Linnaeus, 1758)

Material examined – "LEBANON, Northern gov., Bcharre env., 1 km E Ariz, Horsh Arz el-Rab, ancient *Cedrus* forest, swept & singled, 34° 14' 33" N, 36° 2' 59" E, 1900 m, 30.V.–VI.7.2015, leg. A. Márkus & T. Németh" [pupae from beneath bark of *Quercus cedrorum*] (10 males, 11 females, PCAM); "LEBANON, Northern gov., Tannourine env., 2 km N Harissa, Tannourine Cedars Nat. Reserve, 34° 12' 34" N, 35° 55' 45" E, 1750 m, 23.V.2015, leg. A. Márkus" [from beneath bark of *Quercus cedrorum* adult] (1 female, PCAM); "LEBANON, Northern gov., Ehden, Horsh Ehden Natural Reserve, singled, 34° 18' 33" N, 35° 59' 14" E, 1525 m, 21.V.–VI.7.2015, leg. M. Boustani, A. Márkus & T. Németh" [from beneath bark of *Quercus cedrorum* adults and pupae] (8 males, 4 females, PCAM, 1 male, 1 female, HNHM); "LEBANON, Northern gov., Tannourine env., 2 km N Harissa, Tannourine Cedars Nat. Reserve, singled, Eco-Dalida Resort, 34° 12' 34" N, 35° 55' 45" E, 1750 m, 16.VI.2016, leg. A. Kotán, P. Nemes & T. Németh" [probably emerged from stacked oak logs] (5 males, 7 females, PCAK, 1 male, HNHM).

Distribution – Transpalaeartic; introduced to North America (DANILEVSKY 2016). First record for Lebanon.

Pedostrangalia riccardoi carmelita Sama, 1996
(Figs 22–23)

Material examined – "LEBANON, Northern gov., Bcharre env., Quadisha Valley, swept & singled, 34° 14' 57" N, 35° 58' 34" E, 970 m, 27.V.2015, leg. M. Boustani, A. Márkus, T. Németh & M. Rehayem" (1 male, PCAM); "LEBANON, Northern gov., Bcharre env., 1 km E Ariz, Horsh Arz el-Rab, ancient *Cedrus* for-



Figs 24–25. Live individuals, 24 = *Leiopus syriacus syriacus* (Ganglbauer, 1884), 25 = *Libanoclytus tommasoi* Sama, Rapuzzi et Kairouz, 2010



Figs 26–27. Collecting sites, 26 = Horsh Arz el-Rab, ancient *Cedrus libani* forest, 27 = Quadisha Valley (all photos T. Németh)

est, swept & singled, 34° 14' 33" N, 36° 2' 59" E, 1900 m, 20.VI.2016, leg. M. Boustani, A. Kotán, P. Nemes & T. Németh" (1 female, PCAK); "LEBANON, Northern gov., Tannourine env., 2 km N Harissa, Fuvar, stream valley, swept & beaten, 34° 12' 22" N, 35° 55' 17" E, 1460 m, 17.VI.2016, leg. A. Kotán, P. Nemes & T. Németh" (2 females, PCAK).

Distribution – Israel (DANILEVSKY 2016). First record for Lebanon.

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Acknowledgements – Thanks are due to Nabil Nemer (USEK) and Charbel Tawk (Committee of Cedar Forest Friends, Bcharre, Lebanon) for the organisation of the travel, the accomplishment of the project and hospitality. We are grateful to Oscar Akiki, Mira Boustani, Attila Kotán, Petra Nemes, Martine Rehayem and Wael Yamine for the tireless and unselfish help in the field work. We thank Gábor Csorba (deputy general director, HNHM) without whom these trips could not be realised. Special thanks for Mikhail Danilevsky (Moscow) for input on the manuscript.

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