

# *Kyklioacalles libani* sp.n. from Lebanon (Coleoptera: Curculionidae: Cryptorhynchini)

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## Abstract

A new species of *Kyklioacalles* subg. *Glaberacalles* STÜBEN & ASTRIN, 2010 (Coleoptera: Curculionidae: Cryptorhynchini), closely related to *K. syriacus* (PIC, 1900), is described from high elevations of the Lebanon Mountains.

**Key words:** Coleoptera, Curculionidae, Curculioninae, Molytinae, Cryptorhynchini, *Kyklioacalles*, taxonomy, new species, Lebanon.

## Introduction

The genus *Kyklioacalles* (type species: *Acalles solaris* FIORI, 1903) was described by STÜBEN (1999) based on a cyclic sclerotized structure in the basal part of the endophallus separating this genus from *Acalles* SCHOENHERR, 1825. Later, the subgenus *Glaberacalles* (type species: *Acalles punctaticollis* LUCAS, 1846) was erected within the genus *Kyklioacalles* by STÜBEN & ASTRIN (2010). The description of the subgenus was mostly based on the elytral scales. Presently, the subgenus *Glaberacalles* includes seven species mostly distributed in south-eastern Europe, and north-western Africa. Only two species are known from the East Mediterranean (ALONSO-ZARAZAGA et al. 2017).

In 2018, the author conducted a research on the weevil fauna of Lebanon with a focus on medium and high altitudes. At that opportunity, two species of *Kyklioacalles* were sifted, one of which turned out to be new to science.

## Material and methods

Measurements, treatment and mounting of genital structures, devices used, photography, and picture processing follow KOŠŤÁL (2018).

### Abbreviations:

El, Ew	elytral length, elytral width
Pl, Pw	pronotal length, pronotal width
Rl, Rw	rostrum length (taken from the rostrum base to the apex of rostrum mandibles excluded), rostrum width (taken at the rostrum base)
KO	Collection Michael Košťál, Šoporňa, Slovakia

## *Kyklioacalles libani* sp.n.

**Holotype** ♂ (KO): “LIBANON bor.[ealis] Libanon Mts. Michael Košťál leg. \ Ainata env. 2250 m N 34°11.2' E 36°03.2' 15.v.2018”. **Paratypes:** 1 ♀ (KO): same data; 1 ♂ (KO): “LIBANON bor.[ealis] Libanon Mts. Michael Košťál leg. \ Qadicha env. pr. Bcharre 2350 m N 34°13.0' E 36°03.4' 16.v.2018”.

**DIAGNOSIS:** This species is recognizable by the markedly elongate (El/Ew > 1.4), subparallel elytra, relatively large body (4.15–4.55 mm) almost completely covered with adpressed subrotund scales, without erect scales or scale tufts, the antennal insertion before the half of the rostrum length, the apical part of rostrum behind the antennal insertion in lateral view almost straight, and proximal apices of the intertemonal sclerite strikingly projecting laterad.



Figs. 1–3: 1) *Kyklioacalles libani*, habitus (holotype), 2) *K. syriacus*, habitus, male, 3) *K. libani*, habitus (holotype), lateral view.

DESCRIPTION: Holotype: Completely preserved, 4.55 mm long male. Integument brown to dark brown, antennae and tarsi reddish-brown, almost completely covered with subrotund, adpressed, light brownish and dark brown, somewhat shiny scales, on elytra with sparsely intermixed indistinct patches of yellowish to whitish scales (Figs. 1, 3).

Head: Rostrum stout, moderately long (RI/Rw 2.4, RI/Pl 0.63); in dorsal view widest at base, here terraced roof-like projecting laterally, then narrowed to antennal insertion, and widened from antennal insertion to apex, at base  $1.2 \times$  wider than at apex, in lateral view (Fig. 4) in basal part very slightly, evenly curved, in apical part almost straight, except base and apex of approximately same width; in its entire length with subrotund, unevenly distributed punctures, distance between punctures at midline larger, at upper edge of antennal scrobes smaller than puncture

diameter, punctures at sides of rostrum sometimes confluent, proximal half of basal part on dorsum densely covered with adpressed, subrotund, unevenly large, shiny grayish-brown scales. Head between eyes of 0.9 maximum rostrum width at base. Eyes relatively small, subtriangular, flat. Antennae inserted shortly before middle of rostrum length, except most basal part of scape covered with suberect, thin, whitish to light yellowish hairs, club with relatively short, sparse sensilla; scape in basal 1/4 moderately abruptly curved, in basal half thin, in apical half moderately clavate, of approximately 0.7 funicle length, funicular segment 1 widened apicad, almost 3 × as long as wide, as long as segments 2–3 combined, segments 3–7 isodiametric to slightly transverse, club spindle-shaped, 1.6 × as long as wide.

Pronotum: Approximately as long as wide (Pl/Pw 0.96), widest at 0.4 of its length, moderately, almost evenly rounded from base to 0.8 of its length, then shallowly but clearly constricted, and moderately narrowed anteriorly, anterior margin slightly arched, in lateral view in basal half flat on disc, then slightly slanting to anterior margin; very densely completely covered with subround, finely longitudinally ribbed, slightly unequally large shiny scales completely concealing integument, scales are in some areas brown to reddish-brown, in other areas blackish-brown, additionally, in prescutellar area, on pronotum sides and at anterior margin with few whitish scales.

Scutellum: Not visible.

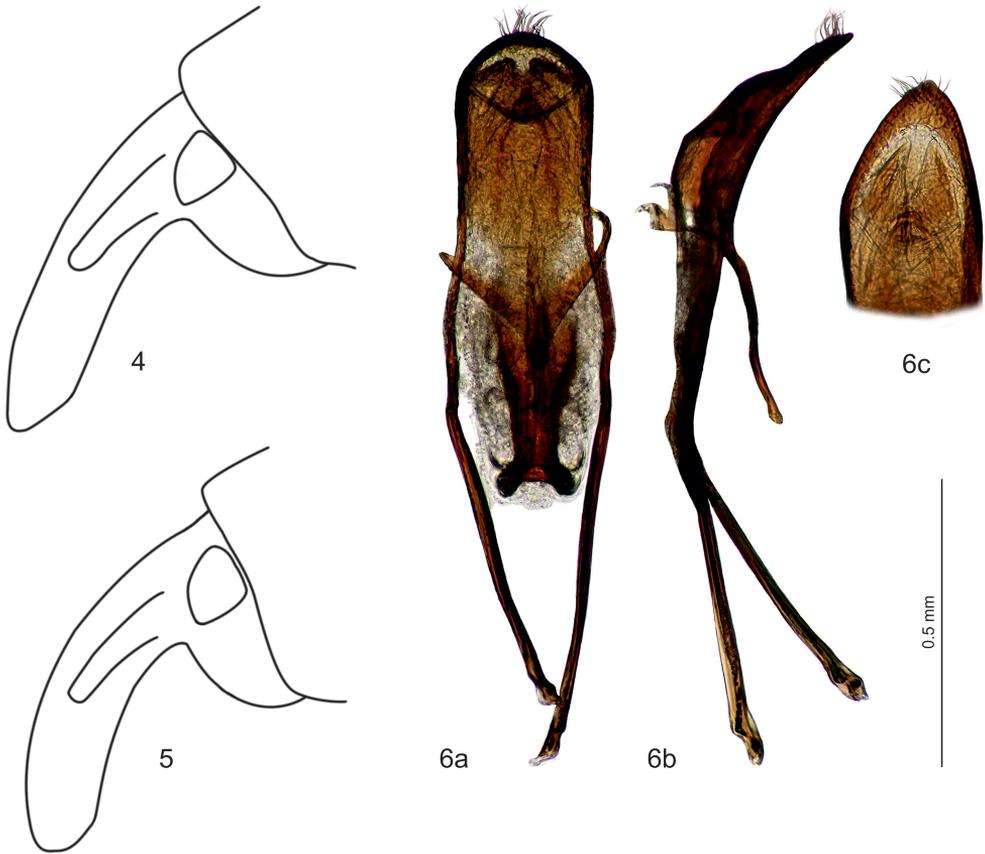
Elytra: Markedly longer than wide (El/Ew 1.40), from base to almost 0.7 of length conspicuously parallel- to subparallel-sided, in distal part very broadly rounded, humeri indistinct; widest approximately between 0.3 and 0.5 of length; interstriae flat to very slightly vaulted, broad, of approximately same width, very densely covered with subrotund, finely longitudinally ribbed, slightly unequally large, unclearly imbricate, shiny scales completely concealing integument, scales of same colour as on pronotum, in subhumeral area and scattered throughout entire elytra along striae with patches of whitish scales; striae fine, shallow, 3–4 × thinner than interstriae, covered with scales, without visible punctures, not reaching anterior elytral margin, striae 6–7 more conspicuously shortened before anterior margin, striae 4–6 confluent before apex, not reaching it.

Venter: Completely covered with densely arranged, subrotund, recumbent to adpressed, slightly overlapping, shiny whitish to light brownish scales; rostral canal in anterior part with adpressed elongate, light brownish scales, in posterior part bare, shiny. Mesoventral receptaculum fully developed, deep, marginal ridge U-shaped, widely open anteriorly. Metaventricle and ventrite 1 with broad median longitudinal impression; ventrite 1 2.8 ×, ventrite 2 3.5 ×, ventrite 5 2.5 × as long as ventrites 3–4 combined.

Legs: Femora relatively long, subparallel-sided, unarmed, in apical part profemora slightly, meso- and metafemora more apparently curved medially; protibiae slightly curved laterally, meso- and metatibiae straight, with sharp, relatively long mucro; tarsomere 1 somewhat more than twice as long as wide, tarsomere 2 isodiametric, tarsomere 3 bilobed, 1.3 × wider than long, onychium of 0.6 length of tarsomeres 1–3 combined, claws simple, thin, free; femora and tibiae densely covered with suboval to subrotund recumbent, slightly shiny brownish scales, tarsomeres 1–3 with recumbent to suberect, yellowish to gingery hairs, onychia with very thin, recumbent hairs.

Penis: Body of penis (Fig. 6) relatively short, in median part almost parallel, in ventral view (Fig. 6a) bluntly, in dorsal view (Fig. 6c) sharply tapered to apex, apex with tuft of long hairs, tementes almost twice as long as sclerotized part of body, intertemonal sclerite in anterior part with apices strikingly projecting laterally; in lateral view (Fig. 6b) body thick, on dorsal side unevenly and strongly arched, on ventral side slightly arched, at apex almost straight.

Female: As in male, except metaventricle with only shallow impression, and ventrite 1 almost flat.



Figs. 4–6: 4–5) Head, lateral view, 4) *Kyklioacalles libani*, 5) *K. syriacus*; 6) *K. libani*, penis in a) ventral and b) lateral view, c) apex of body of penis in dorsal view. Figs. 4–5 not to scale.

**COMPARATIVE NOTES:** *Kyklioacalles libani* is most closely related to *K. syriacus* (PIC, 1900) described from “Syria”, currently Beit Mery in Lebanon (STÜBEN 2018). A lectotype of *K. syriacus* was designated and depicted by STÜBEN (2006). The new species differs from *K. syriacus* in remarkably longer, parallel-sided elytra (El/Ew 1.4 vs. 1.2), less curved rostrum (Figs. 4–5), longer (Pl/Pw 1.0 vs. 0.8) and flatter pronotum, and laterally projecting apices of the anterior part of the intertemonal sclerite. The new species is somewhat related also to *K. armeniacus* STÜBEN, 2006, which is easily recognizable by its larger adpressed pronotal scales and on average smaller body size (2.85–3.70 mm vs. 4.15–4.55 mm).

**VARIABILITY:** Body length: ♂♂ 4.10–4.55 mm, ♀ 4.15 mm. One of the three known type specimens (♂, paratype) has somewhat more contrasting patches of scales along the elytral striae.

**DISTRIBUTION:** Lebanon.

**BIONOMICS:** The type series was sifted in the alpine zone (Fig. 7) at elevations above 2,200 m a.s.l. under cushions of *Astragalus* sp. (milkvetch).



Fig. 7: Habitat of *Kyklioacalles libani* near Qadicha, 2,350 m a.s.l.

In contrast, I collected *K. syriacus* in northern Lebanon (Bchennata near Zgharta, 1300 m a.s.l., 34°20.5'N 35°59.5'E, 16.V.2018) by sifting under not cushion-shaped *Astragalus* sp. Therefore, it seems that *K. libani* is found in a similar type of microhabitat, but prefers higher altitudes than *K. syriacus* and very probably feeds on a different species of milkvetch.

ETYMOLOGY: The species name, a Latin adjective (*libanus*, -i), is derived from its country of origin.

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