

**RESULTS OF THE CZECHOSLOVAK-IRANIAN ENTOMOLOGICAL
EXPEDITIONS TO IRAN 1973 AND 1977****Coleoptera, Melyridae, Malachiinae**

VLADIMÍR ŠVIHLA

Department of Entomology, National Museum (Nat. Hist.), Praha

Abstract: New species of Malachiinae are described and illustrated: *Colotes kovari* sp. n. (Iran), *Attalus (Nepachys) iranicus* sp. n. (Iran), *Ebaeus majeri* sp. n. (USSR, Uzbek SSR), *E. kukkulensis* sp. n. (USSR, Uzbek SSR), *Malachius pickai* sp. n. (Greece), *M. bilyi* sp. n. (Crete), *Clanoptilus aktaschensis* sp. n. (USSR, Uzbek SSR) and *C. brodskyi* sp. n. (Crete). Following new synonymies are stated: *Clanoptilus elegans* Ol. = *C. geniculatus* v. *haemorrhoidalis* Ab., syn. n. and *C. strangulatus* Ab. = *C. schelkownikowi* Pic. syn. n.

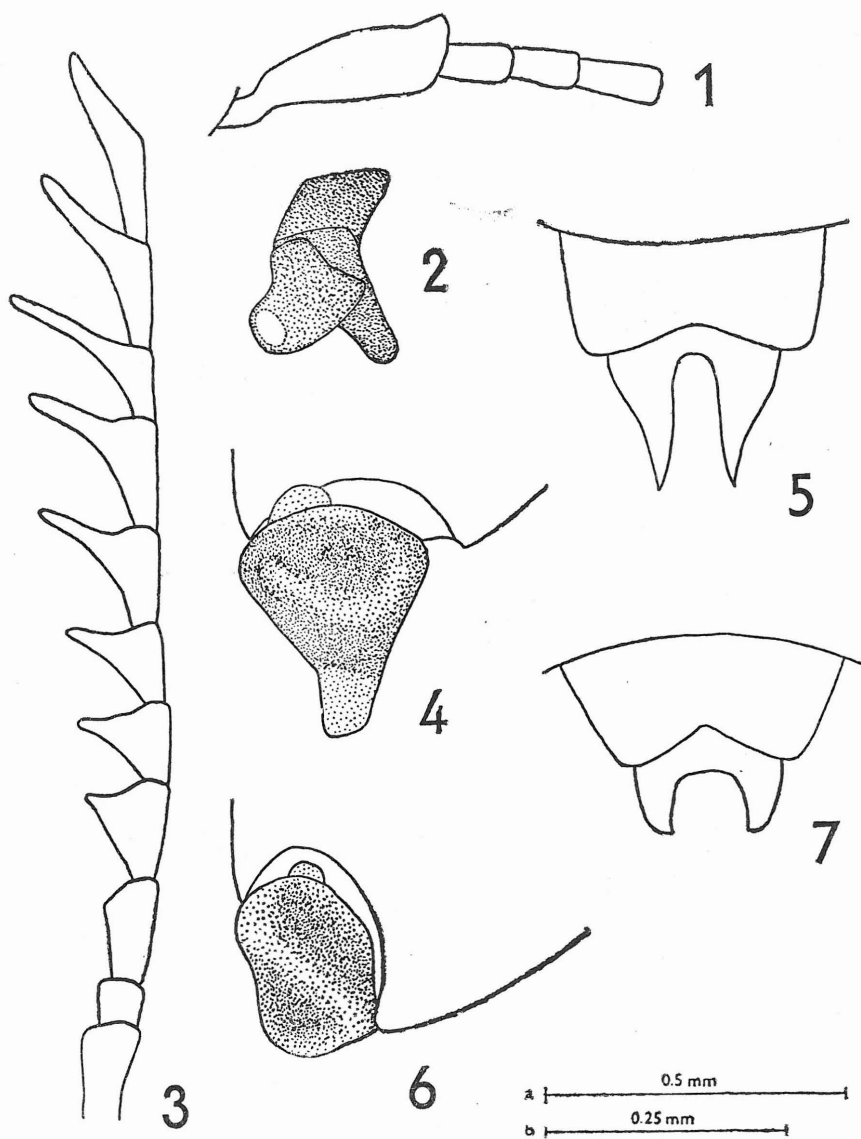
The first part of the new Iranian Malachiinae was described by Dr. W. Wittmer (Wittmer, 1979a). In the rest of the material I found some new species, which I describe in this paper. In the second part of this paper, I describe some new species of Malachiinae from the western and central Palaearctic region.

I am much obliged to Dr. J. Jelínek (Národní Muzeum, Praha), who enabled me to study some very interesting material from Iran. I am also obliged to Dr. J. Menier (Muséum d'histoire naturelle, Paris) and to Dr. G. Scherer (Zoologische Staatssammlung, München) for kind loans of type material. I am also indebted to Dr. S. Bílý, Mr. O. Brodský, Mr. J. Kratochvíl, Dr. V. Lapáček and Ing. K. Majer for providing me with very interesting material.

***Colotes kovari* sp. n.**

Male. Entire body yellow, excluding basal two-thirds of the first antennal segment and two round spots on the postmedian half of elytra.

Head with eyes slightly narrower than pronotum (26:28), vaulted, before eyes almost triangularly narrowed, but without depressions near antennal pits, behind eyes strongly narrowed, so that eyes seem to be on corners in dorsal view. Surface of the head finely but densely punctate, without visible pubescence. Last segment of maxillary palpus in dorsal view and basal antennal segments as figured (Figs. 1, 2). Pronotum distinctly transverse (17:28), lateral and posterior margins rounded,



Figs. 1-7: 1-2: *Colotes kovari* sp. n.: 1 — basal antennal segments; 2 — last segments of maxillary palpus from dorsal view; 3 — *Nepachys iranica* sp. n. antenna; 4-7: elytral appendix and last abdominal segment: 4-5: *Ebaeus majeri* sp. n.; 6-7: *Ebaeus kukkulensis* sp. n. Scale a — Figs. 4-7; b — Figs. 1-3.

anterior margin forms in the middle a slight rounded projection, surface of pronotum more finely and sparsely punctate than head, matt, without visible pubescence. Scutellum subtriangular. Elytra in humeral part very slightly wider than pronotum, slightly extended apically, almost twice as long as wide in humeral part (54:31), their surfaces strongly and densely punctate, between punctures microchagrined (63x), punctures are slighter and sparser in humeral and apical part.

Length ♂♀: 1.5—1.7 mm.

Holotype: ♂, S. Iran, Minab, 19.—20. v. 1973, loc. no. 208, Exp. Nat. Mus. Praha. Paratypes: Oman: Bid Bid, 250 m, 23° 24' N, 58° 09' E, 10. iv. 1985, 2 ex.; N. Sama il Qaylah, 400 m, 23° 21' N, 58° 00' E, 21. iv. 1985, 50 ex.; N. Sama il Qaylah, 400 m, 23° 21' N, 58° 03' E, 22. iv. 1985, 10 ex., all Holzschuh lgt. Holotype and paratypes deposited in Národní muzeum, Praha, paratypes also in Naturhistorisches Museum, Basel.

The first antennal segment of this species is similar to *C. flexuosus* Wittm. but it differs by not having the cheeks hollowed and by the quite different form of the last segment of maxillary palpus (cf. Wittmer, 1981). Named after my friend Dr. Ivo Kovář, specialist in the family Coccinellidae.

***Abeillea minutula* Wittmer, 1956**

SW Iran, Zagros Mts., Sisakht, 2400 m, loc. no. 240, Exp. Nat. Mus. Praha, 5 spec. Described from Afghanistan, new to fauna of Iran.

***Nepachys iranicus* sp. n.**

Male. Entire body orange yellow, ventral part of meso and meta-thorax, area between eyes and sometimes terminal antennal segments yellowish-brown to brown.

Head with eyes distinctly narrower than pronotum. Frons very finely and very sparsely punctate, lustrous, with very sparse, white pubescence, which is somewhat denser on clypeus. Antennae somewhat longer than the humeral part of elytra, their segments as figured (Fig. 3). Pronotum transversely oval (27:37), slightly bordered from its mid-length, like the head punctate and pubescent. Scutellum rounded. Elytra in humeral part slightly wider than pronotum (37:44), about one-third longer than wide in humeral part (44:61), very slightly extended apically, each elytron simply rounded at its apex, without any depression. Elytra shortened, last three abdominal segments are not covered. Surface of elytra very finely and sparsely punctate, densely, finely corrugated, matt, with very sparse white pubescence and with very sporadic decumbent white hairs.

Length ♂: 2.0—2.1 mm.

Female unknown.

Holotype: ♂, S. Iran, Issin, 28. iv.—6. v. 1977, loc. no. 320, Exp. Nat. Mus. Praha, paratypes: the same data, 2 ♂♂. Holotype and paratypes deposited in Národní Muzeum, Praha.

This species is very near to *N. kabulensis* Wittm. and *N. buettikeri* Wittm. [absence of decumbent black hairs and simply rounded elytra without any depression], from which it differs by entirely yellow to brown coloration without black spots or stripes and by somewhat different form of antenna (cf. Wittmer, 1979b, 1980).

***Ebaeus majeri* sp. n.**

Male. Head black, before eyes yellow, maxillary palpi and antennae yellow, antennal segments 5—11 more or less infusate. Pronotum and legs yellow, elytra yellow with two transverse black stripes: basal stripe, reaching almost one-fourth of elytral length and median, wide stripe, not reaching the elytral apex. Elytral appendices yellow, prosternum yellow, meso and metasternum black, abdomen black, its segments yellow bordered, the last one entirely yellow.

Head with eyes narrower than pronotum (48:65), antennae relatively short, length hardly exceeding humeral part of elytra. The first segment three-times longer than the second one, segment 3 slightly longer than segment 2, segments 4—10 as long as the second one, all slightly longer than wide, last segment twice longer than the second. Surface of head almost indistinctly punctate (40x), sparsely, finely white pubescent, lustrous. Pronotum large, vaulted, transversely oval, wider than long (65:48), its surface like the head punctate and pubescent, lustrous. Elytra in humeral part as wide as pronotum, twice longer than wide in humeral part, their surface more densely and deeply punctate, like the head pubescent, lustrous. Elytral appendices and last abdominal segments as figured (Figs. 4, 5).

Female. Head smaller, antennae very slightly shorter, elytra more extended apically.

Length ♂♀: 3.9—4.2 mm.

Holotype: ♂, USSR, Uzbek SSR, Alai Mts., 1800 m, Kuk-kul lake, 60 km S of Fergana, 21. iv. 1981, K. Majer lgt., paratypes: the same data, 1 ♂ 1 ♀. Holotype and paratypes deposited in Národní muzeum, Praha.

By its short antennae closely related to *E. robusticornis* Wittm., from which it differs by following characters: antennal segments 4—10 slightly longer than wide, basis of elytra with black stripe, entire legs and anterior part of head yellow, elytral appendix has quite different form (cf. Wittmer, 1964). Named after my friend Ing. Karel Majer, specialist in the family Melyridae.

***Ebaeus kukkulensis* sp. n.**

Male. Head black, only labrum and clypeus yellow, maxillary palpi and antennae yellow, segments 7—11 slightly infusate. Pronotum yellow, legs yellow with black bases. Elytra yellow with two transverse stripes: basal stripe, reaching one-fourth of elytral length and post-median one, which is very narrowly interrupted on suture and not reach-

ing lateral margins of elytra. Elytral appendices yellow. Ventral part of body black, last two abdominal segments yellow.

Head with eyes narrower than pronotum, antennae reaching the end of basal black stripe. The first antennal segment twice longer than the second one, segments 3—10 approximately as long as segment 2, last segment as long as the first one. Segments 3—8 triangular, distinctly longer than wide. Surface of head sparsely, finely punctate, finely white pubescent, lustrous. Pronotum transverse oval, wider than long (45:30), its surface like the head punctate and pubescent. Elytra in humeral part slightly wider than pronotum (52:45), twice longer than wide in humeral part, their surface more densely punctate than head and pronotum, finely white pubescent, semilustrous. Elytral appendices and last abdominal segment as figured (Figs. 6, 7).

Length ♂: 3.2 mm.

Female unknown.

Holotype: ♂: USSR, Uzbek SSR, Alai Mts., 1800 m, Kuk-kul lake, 60 km S of Fergana, 21. iv. 1981, K. Majer lgt., deposited in Národní muzeum, Praha.

In my key (Švihla, 1980), which complements key by Wittmer (1970), this species belongs to *E. tripictus* Ab., from which it differs by yellow elytral coloration (not yellowish-white) and by different form of elytral appendix and last abdominal segment, which is in *E. tripictus* Ab. black.

***Malachius pickai* sp. n.**

Male. Head up to one-third of length of eyes and to posterior margins of antennal pits yellow, the rest of frons and vertex metallic green, maxillary palpi black, ventral parts of antennal segments 1 and 3, inner appendix of segment 2 yellow, inner side of segment 4—5 brown. Pronotum metallic green with small red spots on anterior angles, elytra green with large red apical spot (almost one-third of elytral length). Legs black, ventral part of body green, epimera of mesothorax yellow.

Head before eyes deeply transversely carinate, postclypeal fillet with bunch of hairs in the middle (Fig. 9). Frons between eyes with three depressions, the middle one is deeper. Head with eyes slightly narrower than pronotum (34:40), surface of frons and vertex with denser recumbent white pubescence and sparser erected black hairs. Antennae almost reaching the elytral midlength, their five basal segments as figured (Fig. 8), following segments similar to segment 5. Pronotum transversely oval, wider than long (40:30), its posterior angles with oblique depressions, like the head punctate and pubescent. Scutellum oval. Elytra in humeral part very slightly wider than pronotum, more than twice longer than wide in humeral part (90:41), very slightly extended apically, its apex simple. Surface of elytra like the head punctate and pubescent.

Length ♂: 7.0—7.9 mm.

Female unknown.

Holotype: ♂, Greece, Olympos Mts., 1500 m, 29 vi. 1980, J. Picka lgt., paratype: the same data, 1 ♂, both holotype and paratype deposited in Národní muzeum, Praha.

By its length and colouration very similar to *M. agenjoi* Pardo, from which it differs by the different form of antennal segments 2 and 3, by the form of segment 4, which is in *M. pickai* sp. n. almost parallel-sided and by the form of postclypeal fillet. Named after Mr. Jaroslav Picka, specialist in the family Tenebrionidae.

Malachius bilyi sp. n.

Male. Head up to the antennal insertion and to bases of mandibles yellow, maxillary palpi dark, frons and vertex metallic green. Antennae green, four basal segments on the ventral side yellow, segments 5—8 with more or less lighter corners. Pronotum metallic green with orange-red spots on anterior angles, elytra orange-red with green base and suture, green colouration narrowing and reaching posteriorly up to three-quarters of elytral length. Ventral part of body metallic green with yellow epimera of mesothorax. Legs dark, anterior tibiae sometimes brown.

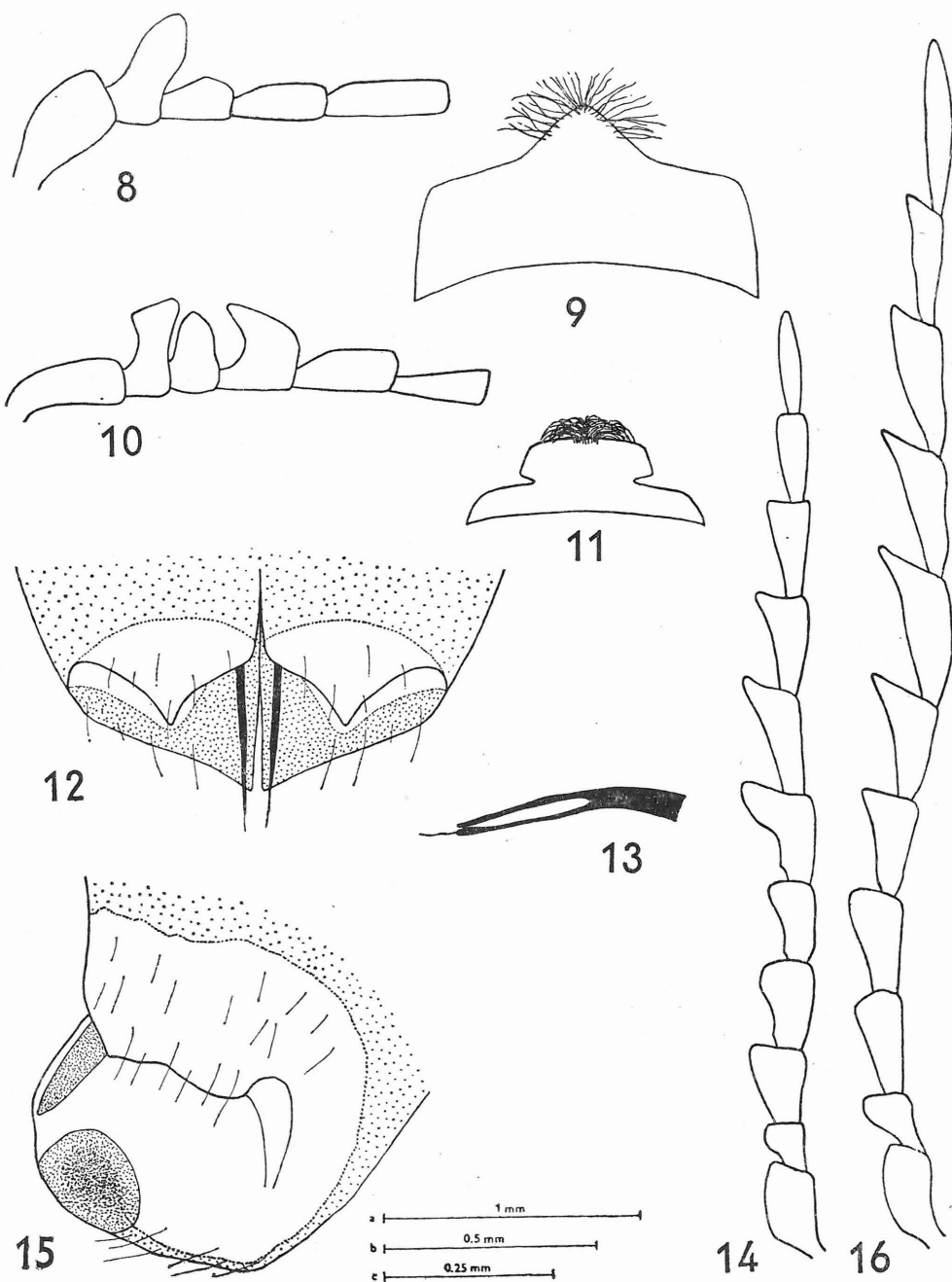
Head with eyes slightly narrower than pronotum. Frons transversely carinate before eyes, postclypeal fillet with bunch of hairs in the middle (Fig. 11). Frons between eyes with transverse, deep depression. Surface of head microchagrined, matt, with erect black hairs. Antennae reaching the midlength of elytra, six basal segments as figured (Fig. 10), segments 7—9 similar to segment 6, last two segments filiform. Pronotum wider than long (31:23), transversely oval, posterior angles with oblique depression. Surface of pronotum microchagrined, like the head pubescent. Scutellum oval. Elytra in humeral part slightly wider than pronotum (34:31), twice longer than wide in humeral part, slightly extended apically, elytral apexes simple. Surface of elytra like the head and pronotum punctate and pubescent, but also with fine, short, sparse white pubescence.

Length ♂: 5.1—6.0 mm.

Female unknown. I have some females from the same locality and date, which are very similar to *M. bipustulatus* (L.), from which they cannot be exactly distinguished. Maybe these are the females of *M. bilyi* sp. n. and this species has sexual dichroism similar to *M. rubidus* Er.

Holotype: ♂, Crete, Lefka Ori Mts., Omalos, 3. vi. 1981, S. Bílý lgt., paratypes: the same locality, 27. v.—1. vi. 1980, S. Bílý and O. Brodský lgt., 3 ♂♂, all deposited in Národní muzeum, Praha.

Figs. 8—16: 8—11: basal antennal segments and postclypeal fillet from anterior view; 8—9: *Malachius pickai* sp. n.; 10—11: *Malachius bilyi* sp. n.; 12—14: *Clanoptilus brodskyi* sp. n.; 12 — elytral apex; 13 — elytral appendix, lateral view; 14 — antenna; 15—16: *Clanoptilus aktaschensis* sp. n.; 15 — elytral apex, laterocaudal view; 16 — antenna. Scale a — Figs. 8, 10, 12, 14, 16; b — Figs. 9, 11, 15; c — Fig. 13.



This species is by its colouration and by the form of antenna very near to *M. scutellaris* Er., from which it differs by these characters: the first segment of antenna is shorter and not triangular, the second one not so dilated interiorly, segment 4 with longer appendix, antennae longer and postclypeal fillet has different form. Named after my friend Dr. Svatopluk Bílý, well-known specialist in the family Buprestidae.

***Clanoptilus aktaschensis* sp. n.**

Male. Head metallic green, from the midlength of eyes and from the posterior margins of antennal pits anteriorly yellow. Palpi yellow, antennae dark, five basal segments on the lower side yellow. Pronotum metallic green, lateral margins narrowly yellow bordered, the yellow colouration is somewhat wider in posterior half. Legs dark, anterior tibiae on the inner side, apices of anterior and intermediate femora excluding basal part and anterior side and posterior tibiae yellow, intermediate and posterior tarsi infusate. Elytra metallic green, its apical part yellow, the elytral appendix and oval depression on inner corner black. Ventral part of body metallic green with yellow epimera of mesothorax.

Head with eyes as wide as pronotum, clypeus and anterior part of frons slightly vaulted, between eyes with two shallow depressions, surface of frons sparsely and finely punctate, lustrous, with denser, recumbent, white pubescence and sparser, erect black hairs. Antenna as figured (Fig. 16). Pronotum wider than long (34:27), transversely oval, posterior angles with oblique depressions, surface of pronotum like the head punctate and pubescent. Posterior tibia slightly bent, with longitudinal carina along its entire length. Scutellum oval. Elytra in humeral part very slightly wider than pronotum, parallel-sided, twice longer than wide in humeral part. Surface of elytra densely microchagrined, like the head and pronotum pubescent. Elytral apex as figured (Fig. 15).

Length ♂: 6.0 mm.

Female unknown.

Holotype: ♂, USSR, Uzbek SSR, Aktasch (Taschkent env.), 11. v. 1977, S. Bílý lgt., deposited in Národní muzeum, Praha. Paratype, the same locality, 6. vi. 1959, K. Pospíšil lgt., 1 ♂, deposited in Naturhistorisches Museum, Basel.

This species belongs to *C. flabellicornis* (Solsky) — group From *C. flabellicornis* (Solsky) it differs by much smaller appendices to antennal segments, from other species of this group by the first antennal segment, which is without basal corner and also by the form of elytral apex (cf. Wittmer, 1979c).

***Clanoptilus brodskyi* sp. n.**

Male. Body metallic blue or green. Labrum, anteclypeus, maxillary palpi on joints, epimera of mesothorax and dorsal side of elytral depression yellow, its lower part black. Six basal antennal segments on the ventral side influsate.

Head with eyes slightly narrower than pronotum. Antennae reaching one-third of elytral length. Antennal segments as figured (Fig. 14). Frons slightly vaulted, between eyes shallowly transversely depressed. Surface of head very finely and sparsely punctate, densely microchagrined, lustrous, with denser recumbent, white pubescence and sparser, erect, black hairs. Pronotum wider than long (30:23), transversely oval, posterior angles with oblique depressions. Surface of pronotum like the head punctate and pubescent. Scutellum oval. Elytra parallel-sided, in humeral part slightly wider than pronotum, almost twice longer than wide in humeral part (59:32), apex of each elytron with depression and with thorn-shaped appendix as figured (Figs. 12, 13). Posterior tibia curved, longitudinally carinate over its entire length.

Female. Eyes smaller, antennae shorter, slightly exceeding the humeral part of elytra, elytra extended apically, apices simple, posterior tibia not carinate.

Length ♂♀: 4.5—5.8 mm.

Holotype: ♂, Crete, Lefka Ori Mts., Omalos, 27. v.—1. vi. 1980, Bílý et Brodský lgt., paratypes: the same data, 2 ♂♂, 6 ♀♀; the same locality, 3. vi. 1981, S. Bílý lgt., 6 ♂♂ 19 ♀♀; the same locality, v. 1981, J. Kratochvíl lgt., 2 ♂♂; Crete mer., Matala, 28.—30. iii. 1980, V. Lapáček lgt., 5 ♂♂ 10 ♀♀. Holotype and paratypes deposited in Národní muzeum, Praha.

Closely related to *C. spinipennis* (Germ.), which also occurs in Crete. *C. brodskyi* sp. n. differs by following characters: ♂ — first antennal segment not quadrate, antennae more robust, with bigger appendices, antennal segments 7—8 strongly triangular, elytra somewhat wider and shorter; ♀ — segments 7—8 distinctly triangular, not conical.

Clanoptilus elegans (Olivier, 1790)

Malachius geniculatus var. *haemorrhoidalis* Abeille de Perrin, 1891: Ann. Soc. Ent. Fr., 60: 140 **syn. n.**

Material studied: syntypes: Caucasus, Araxesthal, Leder, Reitter, 1 ♂, 3 ♀♀; Caucasus, 1 ♀ (all coll. Abeille de Perrin, Mus. Paris). One female from Araxesthal belongs to another species (*C. dissimilis* Bdi.), remaining material I found to be conspecific with *C. elegans* Ol. Lectotype (♂) and paralectotypes were designated.

Clanoptilus strangulatus (Abeille de Perrin, 1885)

Malachius schelkownikowi Pic, 1911: Echange, 27: 113 **syn. n.**

Through to the kindness of Dr. J. Menier (Mus. Paris) I had a chance to study the holotype of *M. schelkownikowi* Pic: ♀, Caucasus, Aresch, ex. Schelkownikow. I found this specimen to be conspecific with *C. strangulatus* Ab., a common species in Transcaucasus.

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