

A new genus of ichneumonid flies of the subfamily Collyriinae (Hymenoptera: Ichneumonidae) from Syria and Israel

Новый род наездников-ихневмонид подсемейства Collyriinae (Hymenoptera: Ichneumonidae) из Сирии и Израиля

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In the subfamily Collyriinae, a second genus of ichneumonid flies (*Aubertiella* **gen. nov.**) is established for *Collyria nigricator* Aubert, 1964 previously known only from Syria. The new genus differs from *Collyria* Schiødte, 1839 in having the mouth hollow much broader than face, malar space very short, lower tooth of mandible strongly elongate, and tergites 7 and 8 not enlarged and retracted into abdomen (these tergites are always modified and strongly projecting in *Collyria*). Key for both genera of the subfamily is given. Female of *Aubertiella nigricator* (Aubert, 1964), **comb. nov.**, previously unknown, is described. This species is recorded from Israel for the first time.

В подсемействе Collyriinae описывается второй род наездников-ихневмонид (*Aubertiella* **gen. nov.**) для *Collyria nigricator* Aubert, 1964 – вида, ранее известного лишь из Сирии. Новый род отличается от *Collyria* Schiødte, 1839 очень широкой ротовой выемкой, очень короткими щеками, сильно удлинённым нижним зубцом мандибул и немодифицированными и втянутыми в брюшко тергитами 7 и 8 (у всех видов *Collyria* эти тергиты модифицированы и сильно выдвинуты). Дана определительная таблица для двух родов подсемейства. Для *Aubertiella nigricator* (Aubert, 1964), **comb. nov.** впервые описывается самка. Этот вид впервые указывается для Израиля.

Key words: Palaearctic, Israel, ichneumonid flies, Hymenoptera, Ichneumonidae, Collyriinae, *Aubertiella*, new genus

Ключевые слова: Палеарктика, Израиль, ихневмониды, Hymenoptera, Ichneumonidae, Collyriinae, *Aubertiella*, новый род

INTRODUCTION

The small subfamily Collyriinae until now has included only genus *Collyria* Schiødte, 1839 with several species in Palaearctic region (Yu et al., 2005; Gürbuz, Kolarov, 2006; Wahl, 2007). Here a second genus of the subfamily (*Aubertiella* **gen. nov.**) is described for *Collyria nigricator* Aubert, 1964 previously known only from Syria.

MATERIAL AND METHODS

The paper is based on material from the ichneumonid collections of the Department of Zoology of Tel Aviv University, Israel (TAU) and from the Zoological Institute of Russian Academy of Sciences, St Petersburg, Russia (ZIN). Paratype of *Aubertiella nigricator*, **comb. nov.** was loaned from the collection of J.F. Aubert in the Museum of Zoologie, Lausanne, Switzerland (MZL).

TAXONOMIC PART

Order HYMENOPTERA

Family ICHNEUMONIDAE

Subfamily COLLYRIINAE Cushman, 1924

Townes, 1971: 207; Yu & Horstmann, 1997: 190; Yu et al., 2005.

The most noticeable subfamily characters, typical of both genera, are listed below: antennae rather short and thick with 18–22 flagellomeres; clypeus with median tooth on lower margin (this tooth absent or very weak in *Aubertiella*) (Figs 2, 6); propodeum rather flat dorsally (not convex) with long subparallel dorsal longitudinal carinae, and without distinct transverse carinae (Fig. 3); wing venation as figured (Fig. 1), areolet absent; hind coxa very thick, about 3 times as long as mid coxa; hind femora usually very thick (Fig. 1); claws of fore and mid legs with a tooth near the middle, hind claws large and sharply curved at apex (Figs 4, 5); first metasomal segment straight, without glymmae, without longitudinal dorsal and dorsolateral carinae, with spiracles before the middle, apex of sternite about on the level of spiracles; ovipositor almost straight, tapered gradually from rather thick base to thin apex (in *Collyria*, with small irregular denticles in middle part of ventral side (Fig. 7). Larva remarkably differs from larvae of other ichneumonids (Salt, 1931; Short, 1978).

The subfamily Collyriinae until now has included only Palearctic genus *Collyria* with 9 species. Most of these species were described from Western Palearctic (Villers, 1789; Thomson, 1877; Schmiedeknecht, 1908; Aubert, 1964, 1976, 1979; Aubert et al., 1984; Izquierdo & Rey del Castillo, 1985; Gribz & Kolarov, 2006). Data on the hosts of *Collyria* refer mainly to wheat sawflies (Cephididae): *Cephus pygmaeus* (Linnaeus, 1766), *C. cinctus* Norton, 1872, *Trachelus tabidus* (Fabricius, 1795) (Ries, 1926; Salt, 1931, Smith C., 1931; Bernard, 1952; Fitton, 1984; Izquierdo & Rey del Castillo, 1985; etc). Representatives of Collyriinae (as it is

noted for *Collyria*) are koinobiont endoparasitoids with oviposition into the egg and emergence from the cocoon of host (Clausen, 1954). Bibliography on taxonomy, distribution and biology of Collyriinae is given in the World catalogue of Ichneumonidae (Yu & Horstmann, 1997; Yu et al., 2005).

Key to the genera of Collyriinae

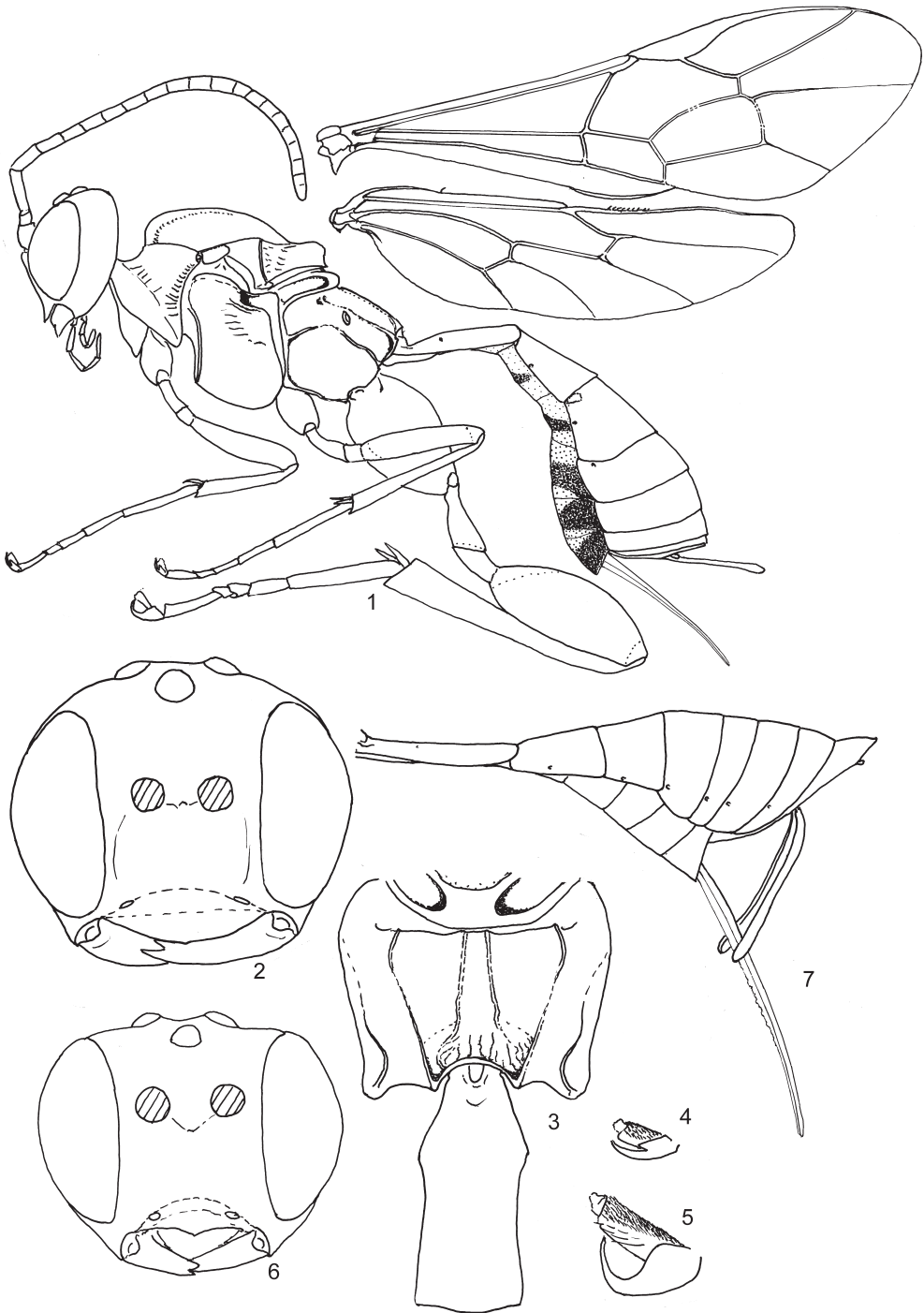
1. Metasomal tergites 7 and 8 of female not enlarged and retracted into abdomen (Fig. 1). Mouth hollow 1.3 times as wide as face. Malar space short, equal to 0.15 basal width of mandible. Lower tooth of mandible much longer than upper tooth (Figs 2). Hind coxa about 0.65 times as wide as long, its maximum width at basal 0.3 (Fig. 1). Hind tarsus with segments 3 and 4 deeply emarginated dorsally on hind margin; segment 5 dorsally almost 3 times as long as segment 3. First tergite in female 2 times as long as wide (Fig. 3). Lower valve of ovipositor ventrally in middle part without discernible irregular denticles. ***Aubertiella* gen. nov.**
- Metasomal tergites 7 and 8 of female enlarged, their visible part more or less as long as tergites 5 and 6 (Fig. 7). Mouth hollow about as wide as face. Malar space distinct, equal to 0.33–0.5 basal width of mandible. Lower tooth of mandible as long as upper tooth or slightly longer (Fig. 6). Hind coxa about 0.45–0.5 times as wide as long, not widened basally, its maximum width at basal 0.4–0.5. Hind tarsus with segments 3 and 4 without dorsal emargination on hind margin; segment 5 dorsally 1.5–2.0 times as long as segment 3. First tergite 2.5–4.0 times as long as wide. Lower valve of ovipositor ventrally in middle part with distinct irregular denticles ***Collyria* Schiødte, 1839**

Genus *Aubertiella* gen. nov.

(Figs 1–5)

Type species: *Collyria nigricator* Aubert, 1964.

Description. Length of fore wing 5.5–6 mm. Antenna with about 21 flagellomeres. Body moderately stout (Fig. 1). Head round in front, with mouth hollow 1.3 times as wide as face (Fig. 2); clypeus broad,



Figs 1–7. *Aubertiella* and *Collyria*. *Aubertiella nigricator*: 1, female, lateral view; 2, head, anterior view; 3, propodeum and first tergite, dorsal view; 4, fore tarsal claw; 5, hind tarsal claw. *Collyria triophthalma*: 6, head, anterior view; *C. coxator*: 7, abdomen, lateral view.

weakly convex, with lower margin rather sharp and with very small projection at the middle. Occipital carina joined hypostomal carina very closely to base of mandible (closer than in *Collyria*). Malar space short, about 0.15 times as wide as basal width of mandible. Labrum hidden. Mandible long with lower tooth twice as long as upper tooth. Maxillary and labial palpi with 5 and 4 segments respectively.

Epomia absent. Notaulus long, rather shallow. Sternaulus absent. Prepectal carina present, without modification on anterior part of mesosternum, and with upper end curved forward and reaching front margin of mesopleuron at level of the middle of pronotal hind margin. Postpectal carina absent. Propodeal spiracle elliptic; median longitudinal carinae of propodeum subparallel and long; apical area bordered by carinae only laterally (Fig. 3).

Apex of fore tibia without small tooth on outer side. Hind coxa large, fore and mid coxae much smaller; hind femur short and thick, 2.5 times as long as wide (Fig. 1). Claws of fore and mid tarsi with tooth near middle; claws of hind tarsus large, simple, strongly curved; arolium large (Figs 4, 5). Fore wing without areolet. Second recurrent vein with two bullae. Nervulus opposite or slightly basad of basal vein. Nervellus of hind wing intercepted at upper 0.65.

Tergite 1 gradually tapered from spiracles to base, spiracles positioned in basal 0.35 of tergite; the margins of tergite beyond spiracles subparallel (Fig. 3); glymmae and longitudinal dorsal and dorsolateral carinae absent; apex of sclerotized part of first sternite slightly before spiracle's level. Thyridium at base of tergite 2 indistinct. Tergite 3 in basolateral corners with gastrocoeli – pale superficial suboval impression. Tergites 7 and 8 strongly retracted under previous tergites and hardly visible (Fig. 1). Ovipositor sheath 0.55 times as long as hind tibia. Ovipositor weakly decurved, compressed and rather deep basally, gradually tapered to a slender cylindrical apical part; its lower edge without small denticles.

Ovipositor tip without teeth and without subapical dorsal notch.

Composition. The genus includes only the type species which was previously known only by male. Female is described here for the first time.

***Aubertiella nigricator* (Aubert, 1964)**

comb. nov.

(Figs 1–5)

Aubert, 1964: 36 [*Collyria*; male (holotype); Syria, Damas (MBU)].

Material examined. Syria, Damas, Rhozlaniye et route de Kissoue, 2–18 May 1960, coll. J. de Beaumont; 1 male (paratype) (MZL). Israel: Teveria ["Tiberius"], 20 March 1974, coll. D. Furth, 1 female (ZIN); Southern Coastal Plain, Mishmar Dawid, 3 Apr. 2009, coll. W. Kuslitzky, 1 female (TAU); Samaria, Hare Gilboa, Merav, Har Aninadav, 420 m, 11 Apr. 2011, coll. A. Freidberg, 1 male (TAU).

Description. Female (nov.). Length: body about 7 mm, fore wing 5.5 mm, flagellum 4.5 mm. Head broad, about 0.5 times as long as wide. Distance from lateral ocellus to eye about twice as long as diameter of ocellus. Face coarsely and densely punctate, on lateral margins covered with rather fine punctures and partly scabrous. Clypeus separated from face, its lower edge sharp, straight or weakly convex and sometimes with median small angulation; punctures on clypeus very coarse and partly confluent in irregular rugosity. Frons covered with moderately fine punctures separated from each other by interspaces equal to 0.5–1.0 of their diameters; lower 0.6 of frons above antennal sockets deeply concave, and this concavity covered with transverse striae. Temples smooth, evenly covered with moderately large and rather dense punctures separated from each other by interspaces almost equal to their diameters and bearing moderately long hairs. Maxillae and labium shiny. Apex of labrum with long setae which slightly shorter than clypeus.

Mesosoma about 1.6 times as long as high, smooth, more or less uniformly covered with moderately large and rather dense

punctures. Mesoscutum about as long as its width between tegulae (in genus *Collyria*, mesoscutum about 1.3–1.5 times as long as its width). Notauli shallow. Mesopleuron with very large subtegular ridge; speculum smooth, shiny, in front with longitudinal striae. Prepectal carina complete, not strong, on mesosternal suture slightly concave. Propodeum without distinct punctures (except before spiracles), on most surface with thin irregular rugae which tend to be transverse; median longitudinal carinae very long, weakly divergent to apex (Fig. 3); lateral and pleural carinae strong at apical part; transverse carinae absent. Wings, legs and abdomen as figured (Figs 1–5).

Black. Flagellum yellowish-rufous, brownish dorsally; scape and pedicel yellowish ventrally, blackish dorsally. Mandible (excepting teeth) and palpi (excepting first segment) yellowish; clypeus at apical half reddish brown. Tegulae dark brown; fore wing with costa yellow; pterostigma brownish, paler in posterior part. Coxae and trochanters black; all trochantelli, extreme base and apex of all femora, and anterior surface of fore femur yellow; fore femur brownish posteriorly; middle femur blackish. Hind femur black; hind tibia and tarsus uniformly pale yellowish-brown.

Male (paratype). Length: body 10.0 mm, fore wing 6.6 mm, antenna 4.5 mm. Antenna with 22 flagellomeres. Head weakly widened behind eyes. Maxillae and labium mat, finely granulate, without punctures. Metasomal tergites 7 and 8 not retracted under previous tergites. First metasomal tergite 3.0 times and second tergite 1.2 times as long as wide; third tergite square; rest tergites transverse.

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