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A NEW SPECIES OF THE GENUS *EURYTOMA* (HYMENOPTERA, CHALCIDOIDEA, EURYTOMIDAE) FROM THE GALLS OF *LIPOSTHENES GLECHOMAE* (HYMENOPTERA, CYNIPIDAE)

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A New Species of the Genus *Eurytoma* (Hymenoptera, Chalcidoidea, Eurytomidae) from the Galls of *Liposthenes glechomae* (Hymenoptera, Cynipidae). Zerova, M. D., Klymenko, S. I. — *Eurytoma trjapitzini* Zerova et Klymenko, sp. n. is described. The new species belongs to the *pistaciae* species group differing from all known species by numerous (10–12) long setae on hind tibia (2–3 in the other species) and on hind femur. An improved key to species of the *pistaciae* group is provided. The holotype and paratypes of the new species are deposited in the collection of the I. I. Schmalhausen Institute of Zoology, Kyiv.

Key words: Hymenoptera, Eurytomidae, new species, Ukraine.

Introduction

The chalcid wasp genus *Eurytoma* Illiger includes over 400 species of uniformly black to brownish yellow species in the World and approximately 225 species infesting larvae or eggs of insects hidden inside the plant tissues (gall wasps, gall midges, tephritid flies, weevils, etc.) in the Palaearctic Region currently revised and keyed (Zerova, 2010).

In June 2017, while observing plants for galls, SIK collected cynipid galls induced by *Liposthenes glechomae* (Linnaeus, 1758) (Cynipidae) on *Nepeta* (= *Glechoma*) *hederacea* L. (Lamiaceae) near Kyiv (Ukraine). Surprisingly, several specimens of *Eurytoma* wasps emerged from them soon, turned out to be to a previously unknown species, which is described below.

The new species was found to belong to the *pistaciae* species group currently revised by Zerova (2010), but readily differing from all the species by the extremely setose hind legs.

The galls were induced on leaves, leaf midribs and stems of *Glechoma*, rounded or ellipsoid swellings, near 10 mm.

Material

The holotype and paratypes of the new species are deposited in the collection of I. I. Schmalhausen Institute of Zoology, National Academy of Science of Ukraine (Kyiv) (SIZK).

***Eurytoma trjapitzini* Zerova et Klymenko, sp. n.**

Material. Holotype ♀: Ukraine, Hlevakha, [50.27° N 30.26° E], "from galls of *Aylax glechomae* Kieffer [= *Liposthenes glechomae* (Linnaeus)] (Cynipidae) on *Glechoma hederacea* L. [= *Nepeta hederacea* L.] (Lamiaceae), galls leg. 30.06.2017, reared 14.07.2017 (Klymenko leg.) (SIZK).

Paratypes: 4 ♀, 5 ♂, same labels as in the holotype (Klymenko leg.) (SIZK).

Description. Female (figs 1–3, 6). Body length 1.7–2.3 mm, holotype 2.0 mm. Head, mesosoma and metasoma black, antennae black, coxae, femora and tibiae black, only knees dark brown, tarsi dark yellow, tip of ovipositor black, venation light yellow, forewings hyaline.

Head from above considerably wider than pronotum, twice as wide as long; head in frontal view 1.3 times wider than its length; temples narrowed to mouth margin; POL 2.2 times wider than OOL; ratio of malar space to eye length 1.6: 1; eye bare, without border around eye orbit; postgenal keel distinct but not very high; external margin of clypeus straight, all surface of face with umbilicate puncture and thick short pubescence. Face cavity shallow, without sharp border. Antenna inserted in the middle of face height; scape extended to middle ocellus level, long, 7 times as long as wide; pedicel very small, twice as short as the first funicle segment; anellus flattened; all funicle segments long, first segment 2.1 times as long as wide, segments 2–5 equal in length, 1.75 times as long as wide, club 3-segmented, not wider than flagellum, funicle with thick pubescence.

Mesosoma not bulging, prothorax long, 1.5 times wider than long, much narrower than head from above, mesoscutum as long as scutellum; dorsal surface of thorax with deep punctated sculpture. Propodeum with deep wide median furrow. Mesosternal keel absent. Coxae without distinct sculpture; hind tibia with many (12–15) long setae, 5 setae on proximal part of tibia conspicuously longer than others; hind femur with row of long setae.

Fore wing hyaline, with very short brown pubescence on distal two-thirds of wing discus; ratio of marginal, postmarginal and radial veins: 1.8 : 1.5 : 1.

Metasoma 1.25 times longer than mesosoma (in profile), all tergites flat, without any sculpture and pubescence, only the 6th tergite with some sparse and very short hairs.

Male (fig. 4, 5). Length of body 1.3–2.0 mm, abdomen short and round with long petiolus as long as hind coxa (in profile). Antenna long, scape slightly gibbous; funicle with long white pubescence, with 5 segments and 2-segmented club.

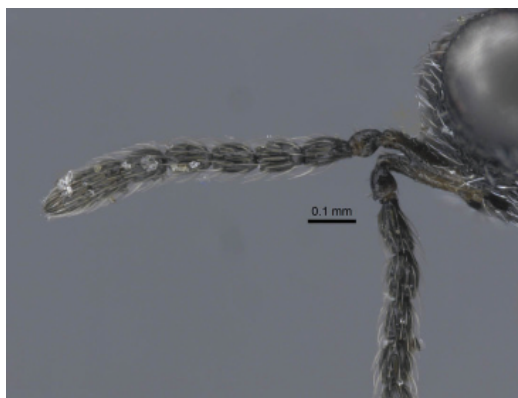
Comments. *Eurytoma trjapitzini* sp. n. belongs to the *pistaciae* species group (Zerova, 1995, 2010). It differs from all other species of this group by the numerous setae on hind tibia and a row of setae on hind femur. Other species of this group have at most 2–3 long setae on hind tibiae.

All the species of the *pistaciae* group are the parasites of gall-inducing insects, mainly Cynipidae. The new species was reared also from cynipid galls.

Etymology. The new species is named in honor of Prof. V. A. Trjapitzin, prominent entomologist and hymenopterist, for his 90th birthday.



1



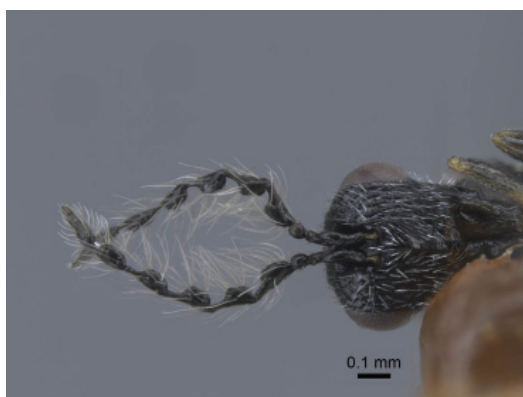
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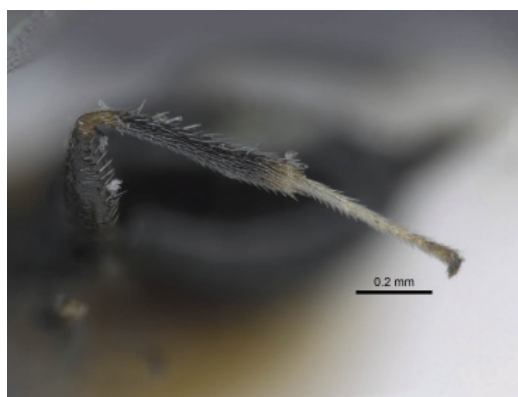
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6

1 — *E. trjapitzini*, sp. n., female; 2 — female, flagellum; 3 — female, head (frontal view); 4 — *E. trjapitzini*, sp. n., male; 5 — male, flagellum; 6 — female, hind tibia.

Key to species of *pistaciae* group

(from Zerova 2010, modified)

- Hind tibia with several (more than 2) long setae, as long as or longer than tibia width. *pistaciae* group of species 1
- 1 Hind tibia with 2–3, rarely 4 long setae. 2
- Hind tibia with 12–15 long setae, of them, 5 longer setae on its proximal part. In galls of *Liposthenes glechomae* (Linnaeus) (Cynipidae) on *Nepeta hederacea* L. Ukraine. .
..... *E. trjapitzini* Zerova et Klymenko, sp. n.
- 2 Female 4th abdominal tergite rounded and widened (lateral view) with deep and thick punctuation; abdomen rounded. Hind tibia with two long setae. Funicle segments of female square. [Postmarginal vein 1.24 × as long as radial vein.] Reared from pods of *Acacia arabica*, *A. seyal*, *Indigofera* sp., but host insect unknown. Africa (Senegal), Yemen. *E. arabica* Risbec
Risbec, 1951: 353; Delvare, 1988: 142; Zerova, Seryogina, Van Harten, 2008: 948; Zerova, Seryogina, 2009: 74; Zerova, 2010: 40.
- Female 4th tergite abdominal non-widened (lateral view), abdominal tergites either smooth or with fine and shallow punctuation mainly on 4th tergite. 3
- 3 Female antenna with all funicle segments conspicuously longer than wide. Legs except coxae yellow. [Male antenna with 5-segmented funicle..... 4
- Only first funicle segment of female antenna longer than wide; segments 2–5 either quadrate or transverse. Legs dark brown. [Male antenna with 4- or 5-segmented funicle]. 5
- 4 Female abdomen elongate, longer than mesosoma (lateral view). Propodeum fine-meshed without medial furrow. Hind tibia with four moderately robust setae at most as long as tibia width. Male funicle 5-segmented; segments long and very light pubescent. Reared from stem of *Echinops ritro*, infested by eggs of stems crickets (*Oecanthus*), but association with crickets is not established. South-East of Ukraine (Donetsk Region). *E. doganlari* Zerova
Zerova, Seryogina, 2009: 79; Zerova, 2010: 41.
- Female abdomen rounded, narrowed only to apex (lateral view), not longer than or inconspicuously longer than mesosoma. Propodeum with medial furrow. Hind tibia with 3, rarely 2 setae. Male funicle 5-segmented; segments short pubescent. Collected on xerophytic grassy associations. Reared from galls of Cecidomyiidae on *Ceratoides papposa* (Chenopodiaceae) in Kazakhstan. South of Palaearctic Region, Vietnam, Yemen. *E. ochraceipes* Kalina
Kalina, 1970: 118; Zerova, 1978: 301, 1995: 235; Doğanlar & Čam, 1991: 148; Zerova, Seryogina, 2009: 74; Zerova, 2010: 41.
- 5 Mesonotum almost flat dorsally. Mesothoracal pleura ventrally with small denticle anterior of mid coxae. Abdomen oval (lateral view). Hind tibia with 3 long setae, of them the distal longer than two proximal. Male antenna as in *E. pistaciae* (fig. 1, 2). Host unknown. South East of Ukraine, Turkey.
..... *E. tokatensis* DoğanlarDoğanlar & Čam, 1991: 144; Zerova, 1995 b: 236; Zerova, Seryogina, 2009: 74; Zerova, 2010: 41.
- Mesonotum not flattened dorsally. Other characters variable. 6
- 6 Hind tibia with one long and 2–3 shorter setae. Female antenna with first funicle segment slightly longer than wide, and segments 4–5 transverse. Abdomen slightly longer than mesosoma. Host unknown. Yemen. *E. tibiaspinae* Zerova

- Zerova, Seryogina, van Harten, 2008: 958; Zerova, Seryogina, 2009: 74; Zerova, 2010: 41.
- Hind tibia with 2–3 setae. Other characters variable. 7
- 7 Female abdomen S-shaped curved, slightly longer than mesosoma, upcurved at apex, slightly compressed laterally, abdominal tergite 7 of female longer than high (lateral view). Male antenna 4-segmented. Hind tibia with 2, rarely 3 setae. Common host: *Diplolepis mayri* (Cynipidae); also reared from larvae of *Megastigmus pistaciae* in fruits of *Pistacia mutica*. South of Palaearctic Region.
..... *E. pistaciae* Rondani
Rondani, 1877: 180; Mayr, 1878: 330; Kalina, 1970: 119 (*Eurytoma setigera*). — Ferrière, 1950: 402; Nikolskaya, 1952 a: 173 (*Bruchophagus setigerus*). — Bouček, 1974: 263; Zerova, 1978: 298, 2010: 41; Zerova, Seryogina, 2009: 74 (*Eurytoma pistaciae*). — Bouček, 1977: 15; Doğanlar & Čam, 1991: 146; Zerova, 1995: 234 (*Eurytoma pistacina*, misspelling).
- Female abdomen neither S-shaped curved, nor upcurved at apex, abdominal tergite 7 of female as long as or shorter than high (lateral view). Other characters variable). 8
- 8 Female antenna with fifth segment of funicle square. Fore coxa with conspicuous excavation in ventral one-third at lateral margin. Male antenna 4-segmented. Reared from galls of Cynipidae on oak, more often from *Biorhizza pallida* (Cynipidae). Southern and Middle Europe.
..... *E. spinipes* Kalina, 1970
Kalina, 1970: 113; Zerova, 1995: 235; Zerova, Seryogina, 2009: 7; Zerova, 2010: 41.
- Female antenna with all segments somewhat longer than wide. Fore coxa not excavated at anterior margin. Male antenna 5-segmented. Reared from galls of *Neuroterus* sp. (Cynipidae) on leaves of *Quercus mongolica*. Far East Russia.
..... *E. narendrani* Zerova in: Zerova & Seryogina, 2009
Zerova, Seryogina, 2009: 74; Zerova, 2010: 42.

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