

RESULTS OF THE ZOOLOGICAL SCIENTIFIC EXPEDITION  
OF THE NATIONAL MUSEUM IN PRAHA TO TURKEY

7

Hymenoptera I  
Chalcidoidea (first part)

ZDENĚK BOUČEK

(Accepted for publication April 10, 1951)

LEUCOSPIDIDAE

*Leucospis dorsigera* F.

4 ♂ 4 ♀ Gyaour dağ, Anatolia, 17. VIII. 47. All specimens have the pronotum posteriorly and laterally bordered yellow; but the anterior yellow border does not connect with the lateral one.

*Leucospis gibba* KLUG.

1 ♀ Bürücek, Toros, Anatolia, 29.—31. VII. 47. Very rare species, so far known only from the Crimea, France, Italy and Albania. The specimen has the wings brown smoked similarly as MASI 1943 writes about the specimen from Albania (Boll. Soc. Ent. It. 75 : 82): Le ali... sono molto scure mentre secondo SCHLETTERER, nel tipo "fast ganz hell". Also in the other characters it corresponds completely to MASI's description in the paper cited above, also with regard to the colouring of the scape and second tergite, which has laterally a narrow yellow band. By these features the specimen differs from SCHLETTERER's description in his monograph of the genus (Berl. Ent. Ztschr. 35 : 181—183, 1890) and corresponds more to the description of *L. bifasciata* KLUG. But the fifth tergite (the third visible one) is distinctly inflated seen from above.

CHALCIDIDAE

*Brachymeria femorata* (PANZ.)

1 ♂ 1 ♀ Moğan gölü, Anatolia, 8. VII. 47.

***Brachymeria intermedia* (NEES)**

1 ♂ Edirne, 8.—13. VI. 47; 1 ♀ Moğan gölü, Anatolia, 8. VII. 1947; 1 ♂ Ayaş, Anatolia, 17. VII. 47; 1 ♂ 1 ♀ Gyaur dağ, Anatolia, 17. VIII. 47. Both species abundant in the Mediterranean.

***Brachymeria rugulosa* (FÖRST.)**

1 ♀ Mladenovac, Jugoslavia, 3. VI. 47. Rare and still little known species. Often confused with other small species of the genus.

***Brachymeria punctulata* (FÖRST.)**

1 ♂, Ankara-Baraj, Anatolia, 3.—4. VII. 47. Smallest of the palearctic species of the genus, like the preceding one until recently little known. More abundant than the preceding one.

***Brachymeria vicina* (WALK.)**

1 ♀, Beynam, Anatolia, 28. VI. 47; 1 ♀, Gyaur dağ, Anatolia, 17. VIII. 1947. Very variable species, abundant just like the following one.

***Brachymeria minuta* (L.)**

1 ♀, Gyaur dağ, Anatolia, 17. VIII. 47.

***Belaspidia obscura* MASI**

1 ♀ Edirne, 8—13. VI. 47; 1 ♀ Moğan gölü, Anatolia, 5. VII. 47. Both specimens have somewhat more slender antennae than the specimens from Central Europe, preclava square. The South European species are generally speaking somewhat less robust, and in connection with this the different parts of the body are longer, more slender. The head is not so thick in an anteroposterior direction, the face is longer, the antennae more slender, their different segments relatively longer. I have seen specimens (the two Turkish ones included) which had the segments of the funicle moderately longer than wide, only the preclava was as long as wide. All this indicates a great variability of the species, as indeed I wrote already in my Revision (Acta Ent. Mus. Nat. Pragae 27, 1951, Suppl. 1 : 38). I have not yet seen a specimen with the preclava longer than wide, as *B. meridionalis* STEFF. (Bull. Mus. 23 : 378—379, 1951) is said to have it, but it is possible that also this specimen (one female only) belongs to our species.

***Hockeria magna* BČK.**

1 ♀ Ankara-Baraj, Anatolia, 3.—4. VII. 47. This is one of the most characteristic species, nevertheless it is known so far only from Czechoslovakia, Hungary, Roumania, Jugoslavia, and Switzerland. It has obviously a much wider distribution than is known at present, but is relatively rare.

***Hockeria karatasensis* n. sp.**

2 ♀ Karataş, Anatolia, 2.—5. VIII. 47, *holotype* and *paratype*. According to the key of the European species (BOUČEK 1951, l. c.) we come to the species *H. bifasciata* Wlk. The new species differs from this species by the

longer epipygium, the antennae, the longer cheeks, the finer punctuation, and the more arched scutellum. From the species *H. unicolor* WLK., which it approaches in the wings, it differs mainly by the brilliant interspaces between the pits on the thorax, further by the scutellum, antennae and epipygium. The abdomen is somewhat reminiscent of *H. magna* BČK., especially by the straight narrowing towards the end.

Description ♀ : 3,7—5,5 mm (*holotype* 5,5).

Black; postpedicellus and first segment of the funicle, tegulae, knees, ends of the tibiae to a small extent, and tarsi entirely reddish brown, abdomen brown below. In the paratype the antennae are entirely black. Wings with two brown bands, between them two hyaline spots with a white pubescence; apical sixth of the wing hyaline as in *H. unicolor* WLK. or *H. bifasciata* WLK. Veins brown.

Antennae slender (fig. 1). Postpedicellus by one third longer than wide. Last segment of the funicle by one fifth longer than wide. Scrobe with a fine sculpture, reaching to the ocellus. Callus interantennalis narrow, very protruding. Frontogenal suture weak. Cheeks relatively long, almost as long as the maximum diameter of the compound eye (30 : 32). Punctuation of the head and thorax relatively finer than in the European species. Punctures never crowded together, on the praescutum and scutellum they are far apart, with the interspaces as large as the punctures themselves, smooth, so that the mesonotum is relatively brilliant. Scutellum strongly convex, from above the dents included as long as wide. Dents triangular, small, the distance between their tips equalling one fourth of the width of the scutellum. Propodeum short, strongly sloping, on the sides with one small spine-like dent, with a white pubescence posterior to it. Epicnemium (antesternum STEFFAN) at a distance from the middle coxae of half their length. The posterior femora on the outside with a fine punctuation accompanied by a shallow, leathery sculpture. The proximal dent in half the length, angular; distal dent rounded and less projecting. The wings are reminiscent not only in the distribution of the spots but also in the nervature of *H. bifasciata* WLK. and *H. unicolor* WLK. Postmarginal vein indicated only by smokiness and shorter than the stigmal vein, which is about 5 times shorter than the marginal one, but sends out at its end a short, beak-shaped rudiment parallel with the anterior margin of the wing.

Abdomen a little longer than head with thorax, widest anterior to half its length, then straightly narrowing towards the end. Somewhat reminiscent of *H. magna* BČK., but shorter. First to third tergites above smooth, brilliant, the following ones with shallow bristle-bearing punctures. Pubescence sparse, short. Epipygium subhorizontal, median carina twice as long as the distance between the pygostyles.

Male and biology unknown.

#### *Hockeria bifasciata* WALK.

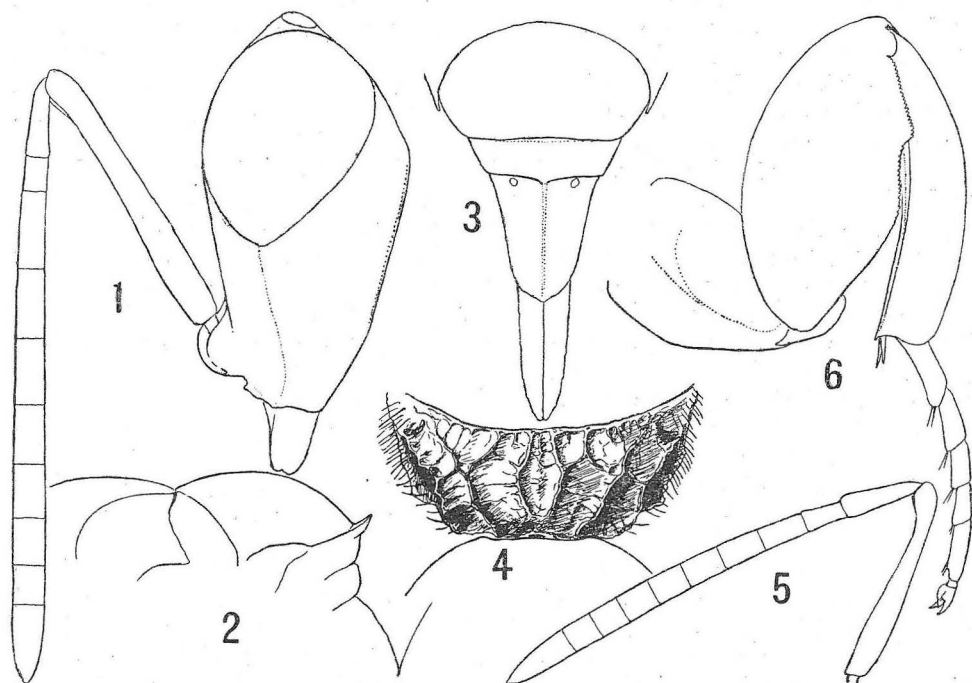
1 ♀ Gyaur dağ, Anatolia, 17. VIII. 47. In the specimen the 3<sup>rd</sup> and 4<sup>th</sup> antennal segments and the legs except the outer part of the posterior tibiae and femora are red. It forms a transition to f. *erdösi* BČK.

**Hockeria unicolor** WALK.

1 ♀ Ankara-Baraj, Anatolia, 3.—4. VII. 47; 1 ♂ Moğan gölü, Anatolia, 5. VII. 47. Both specimens as typical as the Central Europeans ones.

**Invreia clavipes** (ROSSI)

1 ♂ Beynam, Anatolia, 28. VI. 47; 1 ♀ Gyaur dağ, Anatolia, 17. VIII. 1947.



1—3, *Hockeria karatasensis* n. sp., ♀: 1, head and antenna in lateral view; 2, scutellum in lateral view; 3, abdominal apex dorsally; 4—6, *Invreia nitida* n. sp., ♀: 4, propodeum obliquely from behind; 5, antenna; 6, hind leg.

***Invreia nitida* n. sp.**

1 ♀ Gyaur dağ, Anatolia, 17. VIII. 47, *holotype*. This species seems to have a certain closer affinity to *I. nigerrima* MS. on the one hand and to *I. mirabilis* BČK. on the other hand. It approaches the former species by the configuration of the scutellum, which has an indicated marginal ridge (characteristic for the tribe *Haltichellini*) and which posteriorly is blunted, so to speak moderately incised. It approaches the species *I. mirabilis* BČK. by the shape of the body and the brilliant thorax. For some time I suspected it to be the female of *I. mirabilis* BČK., which is still unknown. But the new species differs markedly by the short propodeum (greatly reminiscent of *I. ligustica* MS.) and the slender posterior femora. The differences are too great to be explained by sex dimorphism.

Description ♀: 3,4 mm.

Black, brilliant; yellowish red are the first three segments of the antennae, the legs except the anterior coxae, and the abdomen (rufinism?). The posterior tibiae and the comb of the femur and the posterior half of the abdomen darker, reddish brown to blackish brown. Tegulae dark reddish brown. Wings subhyaline, very slightly brownish in the vicinity of the brown marginal vein.

Antennae relatively slender, of moderate length. Flagellum (pedicel included) in relation to the width of the head as 70 : 54. The slender scape reaches the ocellus. Pedicel almost 4 times as long as its maximum width, a little longer than  $\frac{1}{3}$  of the scape. Postpedicel in the middle moderately narrowed, almost as long as the first segment of the funicle which is twice as long as wide. Funicle filiform, segments gradually shorter, preclava (7. segment of the fun.) by  $\frac{1}{5}$  longer than wide, clava as the 2 preceding segments together. Head in front transverse (53 : 44), of the same shape as in *I. ligustica* Ms., but callus interantennalis and pterygia (laterally from the antennal pits) more prominent. Compound eyes strongly prominent, large. Head from above 24 : 53, slightly wider than the thorax (53 : 50). Thorax short (50 : 75), strongly brilliant, sparsely punctate. Interspaces on the praescutum and scutellum larger than the punctures themselves, scapulae above with a smooth space. Scutellum with slightly developed marginal ridge, bordered by coarse punctures, posteriorly almost truncate, seen obliquely from in front almost incised. Propodeum sloping still more strongly than in *L. ligustica* Ms., carinae relatively weak, uneven (fig. 2). The carina sublateralis runs in the anterior half subhorizontally, then sloping in an arc like the other parts of the propodeum. Sides of the propodeum converging posteriorly. Areola media in the posterior part only slightly raised, therefore also fovea (on the 1. tergite) indistinct. Thorax in profile very high, as high as wide above (50 : 50). The anterior limit of the metapleura runs perpendicularly to the plane of the praescutum-scutellum. Epicnemium strongly ridge-like set off. Tarsi of the legs relatively very slender (especially the posterior ones), slightly longer than the corresponding tibia. Posterior femur also relatively slender (24 : 48), proximal dent indistinct.

Abdomen very short, shorter than the thorax (70 : 75), broadly ovoid. The first tergite reaches to half the length of the abdomen, posteriorly it is semicircular. The second tergite reaches to  $\frac{3}{4}$  of the abdomen. All tergites brilliant, smooth, second tergite and all the following ones with very shallow and sparse, but large punctures which carry a short white hair. Epipygidium short, invisible from above.

Male and biology unknown.

#### *Invreia mirabilis* BČK.

1 ♂ Edirne, 8—13 VI 47. The second specimen of this species described by me in 1951 from Hungary. The female is still unknown. The specimen is smaller than the holotype; it measures 3,7 mm. It shows small deviations, which add to our knowledge of the variability of this characteristic species.

The dent on the scape is at the end somewhat bent upwards. The flagellum is red only below, above it is blackish. The punctuation on the scutellum and praescutum is slightly closer (connected with the smaller size of the specimen) than in the holotype. The carina accessoria runs obliquely side-wards and is connected with the car. sublateralis; the connection is very distinct, so that the two carinae enclose a triangular area. Carina media more distinct than in the holotype.

*Invreia nigerrima* Ms.

1 ♂ Bürücek, Toros, Anatolia, 29.—31. VII. 47. Very rare species, known so far only from Southern Europe.

*Invreia subaenea* Ms.

1 ♀ Ankara-Baraj, Anatolia, 3.—4. VII. 47. Known so far only from Southern Europe, to the north as far as Slovakia.

*Invreia subarmata* (FÖRST.)

1 ♂ Edirne, 8.—13. VI. 47.

*Euchalcidia nigripes* (FONSC.)

5 ♀ Edirne, 8.—13. VI. 47; 1 ♂ Beynam, Anatolia, 28. VI. 47; 1 ♀ Bürücek, Toros, Anatolia, 29.—31. VII. 47. This specimen has the anterior 4 legs red and the scutellum more brilliant than normal, nevertheless it cannot be regarded as specifically different. 1 ♂ Feke, Toros, Anatolia, 12. VIII. 47.

**EUCHARIDIDAE**

*Eucharis punctata* FÖRST.

1 ♀, S. Bulgaria, Harmanli, 7. VI. 47; 1 ♀ Ankara-Baraj, Anatolia, 3.—4. VII. 47. Antennae of the female cf. fig. 10, not yet described. FÖRSTER (Verh. naturh. Ver. pr. Rh. 16 : 89, 1859) knew only the male, and the female seen by RUSCHKA (Deutsch. Ent. Ztschr. 1924 : 85) was without antennae. The species lives parasitically on ants of the genus *Messor* FOR.

*Eucharis anatolica* n. sp.

1 ♂, *holotype*. Ankara-Baraj, Anatolia, 3.—4. VII. 47. Most species of the genus *Eucharis* are known only in one or a few specimens. The greatest number of palearctic species was described by RUSCHKA 1924 (l. c.) and especially by GUSSAKOVSKIJ 1940 (Trav. Inst. zool. Ac. Sci. URSS 1940 : 150—170). When we take the mesoscutum (mesonotum auct.) to be wrinkled punctured we come to the species *E. specularis* RUSCH., in which, however, the antenna of the male has 12 segments on which sits a rudimentary 13<sup>th</sup> segment. In our species the antenna has distinctly 14 segments, i. e. scape, pedicel, 11 segments of the funicle, and the undivided club, which is 2½ times as long as wide. Similar antennae has *E. acuminata* RUSCH., but it has one segment less and the club is distinctly fused of two segments.

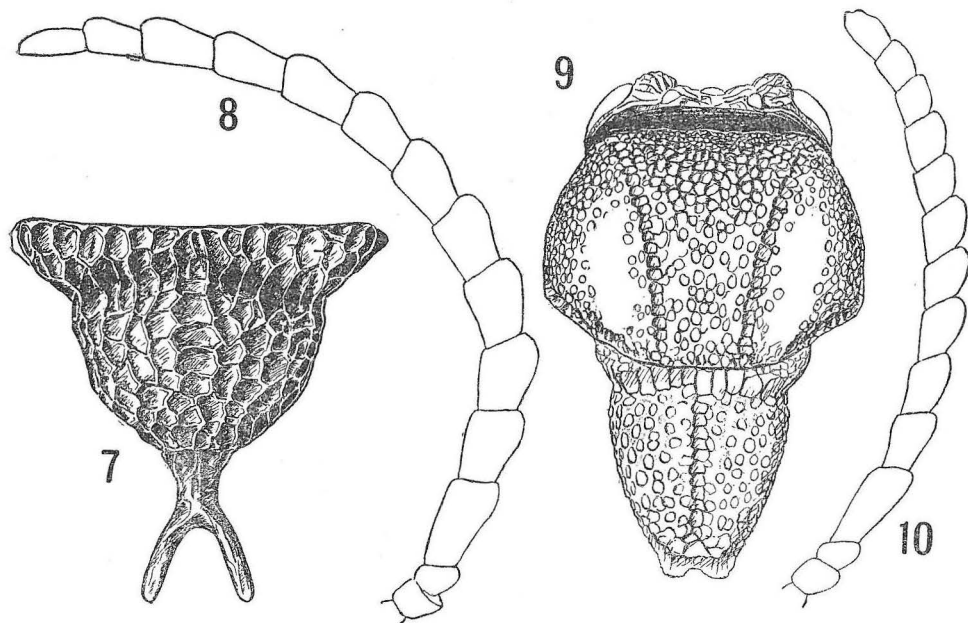


When we use the key and regard the mesoscutum as less coarsely punctured, only *E. punctata* FÖRST. and *E. acuminata* RUSCH. come into consideration. In both species the antennae have, however, only 13 segments, a club of two segments; besides *E. punctata* FÖRST. is distinguished by the shorter scutellum and the more sparsely punctured thorax. I know *E. acuminata* RUSCH. only from its description. But it cannot be assumed that the figuring of the antenna by such a serious scientist as RUSCHKA was could be so inaccurate (l. c., p. 85). The two species have very different antennae.

Description ♂: 6 mm.

Body metal green to bluish green, with a bronze tinge in the anterior part of the mesoscutum, in the vicinity of the axillae, and in the upper, convex part of the mesopleurae. Sides and ventral part of the thorax more bluish, abdomen entirely metal green, posteriorly bluish green. Antennae black, legs except the coxae and larger part of the femura light yellowish brown. Wings whitish, veins very pale yellow.

Antennae see fig. 8, a little longer than the head with the thorax (8:7), jointed in the middle of the anterior part of the head. Head irregularly wrinkled, bottom of the wrinkles granulated. Face beside the lower margin of the compound eye under the jointing of the antennae strongly concave, in the middle from the undelimited clypeus below to the indistinct callus interantennalis above strongly convex. Scrobbis deep, with fine, generally horizontal wrinkles. Vaulted forehead sparsely irregularly wrinkled.



7, *Stilbula vitripennis* Ms., scutellum; 8—9, *Eucharis anatolica* n. sp.: 8, feeler of ♂; 9, head and thorax dorsally; 10, *Eucharis punctata* FÖRST., feeler of ♀.

Thorax relatively slender (fig. 9), transversally strongly vaulted. Pronotum in the middle not visible from above. Mesoscutum in the anterior half coarsely wrinkled punctured; at the posterior margin of the pronotum the puncturing is finer, granular. The posterior half of the praescutum is more sparsely, but coarsely punctured, interspaces irregular, here and there larger than the punctures themselves. Parapsidal furrows distinct, shallow. Scapulae at the sides and anteriorly very closely punctured, punctures polygonal, in the upper part a long-triangular, smooth, non-punctured space. Scutellum distinctly longer than wide, median furrow narrow, distinct. In profile the scutellum is flat, dents distinctly set off from the surface, short, horizontal, incision between them shallow (fig. 9). Lobes of the upper part of the metapleura directed backwards, irregularly wrinkled, very short pubescent (the body otherwise bare). Mesopleura also above closely wrinkled punctured, not brilliant. Petiolus backwards straight, slightly enlarged, relative width anteriorly 5, posteriorly 7, relative length 24. Median keel distinct in its whole length, in the posterior half on each side still one keel; interspace between them canaliculated. Abdomen twice as long as petiolus.

Neither female nor host known.

#### *Stilbula cyniformis* (ROSSI)

3 ♂ 1 ♀ Moğan gölü, 8. VII. 47; 1 ♀ Mollafeneri, 21. VI. 47 (Kocayeli dağ.). Already RUSCHKA knew this species from Anatolia (Deutsch. Ent. Ztschr. 1924 : 89).

#### *Stilbula vitripennis* MASI

1 ♂ Ankara-Baraj, 3.—4. VII. 47. The species was described from the island of Cyprus in 1934 (Ann. Mus. Civ. St. Nat. 57 : 14—15) and reported the same year from Rhodes (MASI: Boll. Soc. ent. It. 66 : 210). I regard the male here recorded as belonging to this species, though deviations from the diagnosis can be found: The antennae are longer,  $\frac{1}{5}$  longer than the distance between the margin of the mesoscutum and the insertion of the petiolus. The first segment of the funicle is  $2\frac{1}{2}$  times as long as wide; the other segments (the club included) are twice as long as wide. The thorax is somewhat more finely punctured than in *S. cyniformis*. Scutellum see fig. 7. The different configuration seems to lie within the range of the individual variability. It differs from *S. cyniformis* mainly by the shorter antennae, the more slender fork of the scutellum, the hyaline, almost milky wings, the light and more projecting metapleural lobe, and the pale petiolus.

### EURYTOMIDAE

#### *Anarchirileya femorata* n. g. n. sp.

2 ♂ Ankara-Baraj, Anatolia, 3.—4. VII. 47, *holotype* and *paratype*.

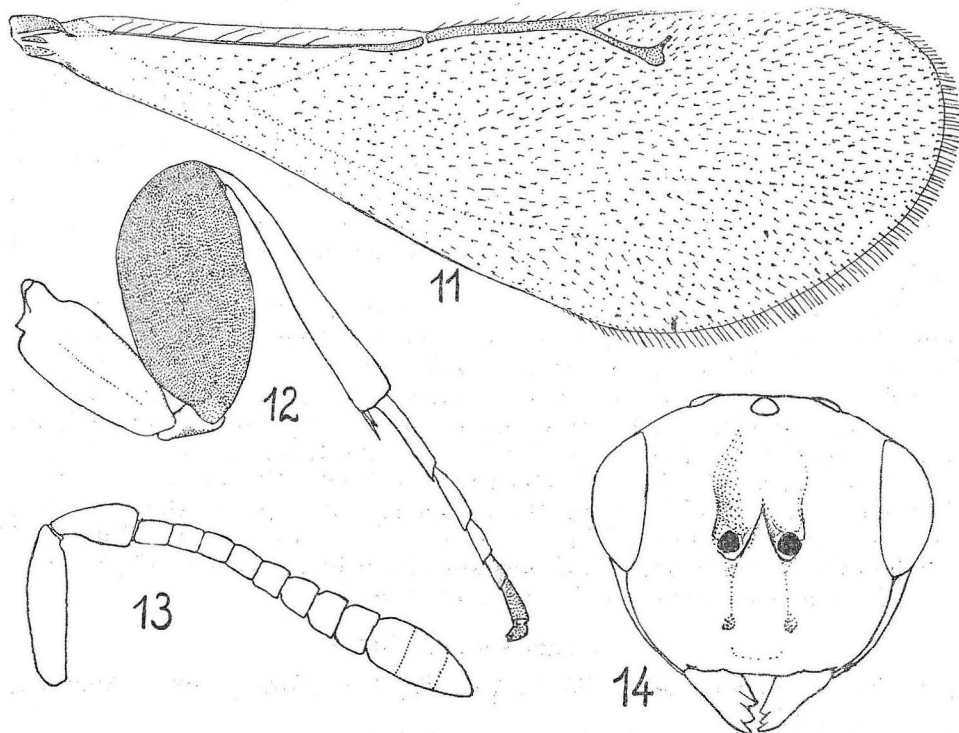
Of the subfamily *Rileyinae*, which represents an archaic group in the family *Eurytomidae*, where 13 antennal segments have been preserved



whereas in the other groups of the family the number of the segments has been reduced, only the genus *Archirileya* SILV. with the one species *A. inopinata* SILV. from Southern Europe has been known so far from the pale-arctic region. The new species *A. femorata* n. sp. is sufficiently different so that although only males are known, it forms a characteristic new genus. The main characters of the genus are the strikingly thickened posterior femora reminiscent of those of the family *Chalcididae*, the configuration and jointing of the antennae.

Diagnosis of the genus:

Body cylindrical. Antennae of the male of 13 segments, distinctly cuneiform, funicle of 8 segments, the first four longer than wide, narrow; none developed as annellus. Antennae jointed above the line of the lower margins of the eyes, in the middle of the face. Head slightly wider than the thorax. Pronotum transverse, anteriorly moderately flattened, posteriorly vaulted, margin straight. Parapsidal furrows very distinct. Propodeum short, with distinct median furrow. Wings hyaline, marginal and post-marginal veins long, stigmal vein short, with beak-like rudiment obliquely to the anterior margin. Posterior femora strikingly thickened, below without dents. Abdomen a little longer than the head with the thorax, cylindrical, enlarged in a posterior direction, widest in the posterior third.



11—14, *Anarchirileya femorata* n. g. n. sp., ♂: 11, fore wing; 12, hind leg; 13, feeler; 14, head, anterior aspect.

Generotype: *Anarchirileya femorata* n. sp.

Description: ♀ unknown. ♂: 2,3—3,2 mm.

Head and thorax blackish brown with lighter colouring of the lower part of the head, pronotum and around the jointing of the wings (holotype), or thorax entirely reddish brown (paratype). Abdomen at the base yellowish brown, at the end darker to blackish brown, especially the posterior half of the 4<sup>th</sup> and 5<sup>th</sup> tergites. Antennae dark brown. Legs light brown, femora, tibiae and ends of the tarsi darker, posterior coxae light, but posterior femora black.

Antennae see fig. 13. Club of three segments, sutures distinct. Head in front view transverse (fig. 14), in the ratio 34 : 28, in an anteroposterior direction thick, above in the ratio of 24 : 15. Compound eyes relatively small, little prominent, very short and sparsely pubescent. Forehead beside the deep scrobe vaulted. Callus interantennalis low, ending pointedly above. The scrobe does not reach the ocellus, but the forehead anterior to the ocellus is distinctly lowered. Tentorial pits distinct, rather deep, the distance between them equal to that from the mouth opening. The part of the face between them moderately vaulted, continues upwards where it passes into the low callus interantennalis. Clypeus undelimited. Both mandibles with three teeth, short. Frontogenal suture distinct.

Thorax twice as long as wide, mat, the hair-carrying punctures coarse but irregular, crowded; pubescence short, whitish. Pronotum widest anteriorly, a little narrower than the mesonotum. Scutellum longer than wide, slightly vaulted, posterior margin slightly prominent above the metanotum. Propodeum rounded on the sides, relatively vaulted, irregularly carinaceous, in the middle with a distinct furrow delimited by slight keels. Epicnemium undelimited. Posterior femora much thickened, only twice as long as wide (53 : 26), mat, sparsely pubescent, puncturing indistinct. Wing see fig. 11. Postmarginal vein as long as the marginal one, stigmal vein twice shorter.

Petiolus very transverse, indistinct. Abdomen posteriorly enlarged, vaulted, longer by one half than the thorax (58 : 41 and 74 : 50). Third and fourth tergites with transverse depression indicated. First tergite bell-shaped, as long as posteriorly wide; posterior margin straight; anteriorly semicircularly incised for the reception of the petiolus, but fovea indistinct. Second tergite short, four times shorter than the first. Third tergite twice as long as the second, a little shorter than the fourth. Fifth tergite about as long as the second and third together, twice as wide as long. Abdomen with slight squamous sculpture, first and second tergite entirely, third and fourth at the posterior margin almost smooth, brilliant. Sides and posterior half of the abdomen short not closely pubescent.

**Eurytoma setigera** MAYR

1 ♀ Moğan gölü, Anatolia, 9. VII. 47; 1 ♀ Kozan, Toros, Anatolia, 8.—9. VIII. 47.

**Eurytoma robusta** MAYR

3 ♀ Kozan, Toros, Anatolia, 8.—9. VIII. 47.

**TORYMIDAE**

***Plastotorymus cothurnatus* Ms.**

2 ♀ Kozan, Toros, Anatolia, 8.—9. VIII. 47.

***Didactyliocerus dispar* Ms.**

1 ♂ Moğan gölü, Anatolia, 9. VII. 47.

**PTEROMALIDAE**

***Picroscytoides cerasiops* MASI**

1 ♀ Edirne, 8.—13. VI. 47; 1 ♂ Ankara-Baraj, Anatolia, 3.—4. VII. 47; 1 ♀ Moğan gölü, Anatolia, 8. VII. 47; 1 ♂ Kozan, Toros, Anatolia, 8.—9. VIII. 47. Typical Mediterranean element.