NOTES ON SOME NEW EUMENIDAE FROM ISRAEL
(HYMENOPTERA, VESPOIDEA).

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The late Dr. h. c. P. Bluthgen (Naumburg, Germany), who determined a great part of the collection of Eumenidae of Prof. H. Bytinski-Salz, Tel-Aviv, has indicated a number of specimens as new species and subspecies, without however being able to describe them; some more specimens were found in his collection, which was bequested to the Museum fur Naturkunde of the Humboldt-University, Berlin.

Dr. E. Koenigsmann kindly returned some of these specimens to the collector, and Prof. Bytinski-Salz kindly put this material at my disposal for description.

In the following paper I am describing some of these new species and forms, using the name which Bluthgen had given them in schedis. I am giving also descriptions of other new species, found among the material from Israel sent to me.

Odynerus (Odynerus) rotundieaster Sauss. 1852. citripes nov. ssp.

(Bluthgen i. sch.) ♀


This subspecies differs from r. rotundieaster Sauss. by a more extended yellow colouring of the markings and by the shorter pilosity on head, thorax and first tergite.

The rich yellow colouring extends in this ssp. to a band on the base of the clypeus, streaks on the antennal scapes, tegulae, two patches on the scutellum. The ferrugineus colour on the legs in r. r. is changed into yellow and the apical bands on tergites are widened laterally except on first tergite. 2nd sternite with a complete, 3rd sternite with an interrupted apical band, sternites 4 and 5 with lateral spots. Lower part of flagellum is reddish coloured. For the rest as in r. r. ♀

Pterocheilus grandiceps Blüth. 1955 (♀ new)

(Fig. 1) Givat-Brenner 5.IV: ♀ (Holotype) leg. et coll. By.S.

Jerusalem - Jericho Road, Old Wadi Kelt Police Station, 26.2.1941; 1 ♀, leg. et coll. By. S.
Ein Gedi, 24.3.1958, 1 ♂ (Allotype), leg. Fishelson, coll. By S.

♂: Pilosity and sculpture as in the female. Yellow coloured are: an extensive triangular spot on mandibles, labrum, clypeus, lower part of antennal scape, small dots above frontal keel, a drop-like spot in sinus, and temple patches. Markings on thorax as in ♀, except scutellum, postscutellum and propodeum, which are black. A fascia on the end of the first tergite, situated in the middle and abbreviated laterally, an apical band, widened laterally and interrupted in the middle on 2nd tergite and an apical band, abbreviated laterally and interrupted in the middle on 3rd tergite, are yellow; rudiment of an apical band on 4th tergite and lateral patches on 2nd sternite. Colour of femora, tibiae and tarsi ferruginous. Femora I exteriorly distally with a patch, and tibiae outside with streaks more or less yellow. Apex of flagellum black. Labial palpi narrow and parallel, with dense pilosity on each side. The borders of sternites 2 to 5 in the middle with dense fringes of hair. Mandibles broadly notched between the 2nd and 3rd teeth. The free lateral edges of clypeus are pointed and the end has a broad elliptic emargination that is a little broader than the distance between the antennal grooves. Surface of clypeus on base and laterally with a dense and very fine micropunctuation; on disk above the emargination the punctuation is coarse and scattered, with chagreened intervals. Length 9 mm.

Pterochelus bytinskii nov. spec. ♀
(Fig. 3)

Holotype: Israel; Wadi Raman, 11.3.1955, 1 ♀, leg. O. Theodor, coll. By S.
Paratype: Morocco; Ksas e Suck, 22.3.1941, 1 ♀, leg. Ch. Runge, coll. Giordani-Solka.

This characteristic species has a black ground-colour with following red markings: mandibles nearly completely, an irregular fascia on the base of the clypeus (in the paratype, except the black border the clypeus is completely red coloured), antennal scape except the apical end, orbital streaks reaching from the sinus to the clypeus, a dot above frontal keel, very big dots on temples, pronotum above, scutellum and postscutellum, two small transverse streaks on the first tergite (in the paratype these markings on 1st tergite are enlarged and on the disk of the second tergite are two patches additionally). Legs from the end of the femora to the tarsi ferruginous coloured, but the back of tibia III, tarsi II and III (metatarsi especially) dark-brown.

Frons and thorax above with long erect hairs. Hairs on temples and vertex very short, closely set. Metanotum on the back covered with very long hairs. First tergite with a short pilosity and tergites II to VI with a dust-like micropubescence. Sternites with a somewhat longer pubescence than on the last tergites.
3rd joint of labial palpi nearly two-thirds as long as the 2nd, convex on
the outside and slightly concave on the inside and coming to a rounded point dis-
tally. Second and third joints with long very dense brown bristles. Parapsidal
furrows distinct only near the scutellum, becoming indistinct before reaching the
pronotum.

Clypeus much broader than long (6.5:4), the free lateral edges broadly
rounded and with a small shallow emargination, as broad as the distance bet-
ween the antennal grooves. The surface is covered with an indistinct short stiff
pubescence laterally. Disk of clypeus with a strong puncturation throughout, but
a remote one in the middle, the intervals between them are broader than the
punctures and shining. Antennal scapes with a scattered micropunctuation,
these and temples shining, the latter only with several punctures. Pronotum,
mesonotum and mesopleurae with dense, somewhat fused punctuation, with
indistinctly brilliant intervals. Mesopleurae above distinctly striate. Lateral edges
of the pronotum are rounded, the frontal border laminated distinctly. Disk of
tegulae brilliant, without punctures, only the border inside with an indistinct mic-
ropunctuation. Scutellum and postscutellum only with scattered puncturing, shi-
ing. The upper lateral edge of the propodeum, near postscutellum bears a small,
compressed sharp point (this is characteristic for the subgenus Odontopterochilus
Kost.). the lower part of propodeum is rounded laterally. Metapleurae finely trans-
versely striate. The tergites are dullish and have a dense micropunctuation. Base
of second sternite without any puncturation, shining, shagreened with few points dis-
tally and with a dense micropunctuation laterally. Sternites 3 to 5 chagreened in
the middle and with a dense micropunctuation on base and sides. The upper part
of forewings are strongly dusky-brownish, the lower part is transparent. Length:
12 mm.

Leptochnilus (Leptochnilus) mauritanicus (Lep. 1841) ssp. derufatus
Blüthg. 1955 (♂ new)

Allotype: 1 ♂, Yeroham, 1.3.1958, leg. By. S.

The allotype has been found on the same place as the holotype and it
agrees by the absence of red coloration on the first tergite. The free lateral
edges of the clypeus are longer than in m.m. and colored black. The punctura-
tion of the first and second tergite and second sternite is much denser than in
m.m. 1st and 2nd tergite with white apical bands, 3rd and 4th tergite with white
patches in the middle. Basal half of the femora black. The rest as in m.m. ♂.

Leptochnilus (Sarochilus nov. subg.) alterego nov. spec. , (Blüthgen i. sch.)
(Fig. 4).

To Sarochilus nov. subgenus belong all species of the genus Leptochnilus,
which agree by the long hairy labial palpi, like the labial palpi of the genus
Pterochilus. The subgenerotype is Leptochnilus alterego nov. spec.
Holotype: Birecik, Turkey, 17.5.1967, 1 ϕ, leg. et coll. Guseinl.
Paratypes: Birecik, Turkey, 17.5.1967, 1 ϕ, leg. et coll. Guseinl.,
17. - 18.5.1967 2 ϕϕ, leg. J. Schmidt, coll. m.
Avdat, Israel, 30.3., 3 ϕϕ, leg. By.S. 2 ϕϕ, coll. By.S., 1 ϕ coll m.

This species is very similar to Leptochilus gemma G.S., but the main differences are as follows:

<table>
<thead>
<tr>
<th>L. alterego ϕ</th>
<th>L. gemma ϕ</th>
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<tbody>
<tr>
<td>The emargination of the clypeus is</td>
<td>The emargination of the clypeus is</td>
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<tr>
<td>shorter and much deeper than in gemma.</td>
<td>broader and shallow.</td>
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<tr>
<td>Clypeus broader than long (2.5:2)</td>
<td>Clypeus shorter (3:2)</td>
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<tr>
<td>Disk of clypeus dullish, with a punct-</td>
<td>Clypeus with a coarse, scattered</td>
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<td>uration much denser and finer than in</td>
<td>punctuation and brilliant intervals on</td>
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<td>gemma, with a dense micropunctu-</td>
<td>disk, with dense micropunctuation</td>
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<td>tation and silvery hairs laterally.</td>
<td>and silvery hairs laterally.</td>
</tr>
<tr>
<td>Shape of thorax slender, pronotum</td>
<td>Shape of thorax broader, more extended</td>
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<tr>
<td>much more rounded laterally than in</td>
<td>and more pointed laterally, covered</td>
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<tr>
<td>gemma, covered with longer pale</td>
<td>with pale hairs, shorter than in alte-</td>
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<td>hairs. First tergite broader, semi-</td>
<td>rego. First tergite slender, the trans-</td>
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<td>circular, the transverse impression</td>
<td>verse impression shallow.</td>
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<td>deep.</td>
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<tr>
<td>Mesopleurae above with a white patch.</td>
<td>Mesopleurae above with an indistinct</td>
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<tr>
<td></td>
<td>red patch.</td>
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<tr>
<td>Tergites IV and V with white patches</td>
<td>Tergites III to VI black.</td>
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<td>in the middle, tergite III black.</td>
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<tr>
<td>Femora I to III dark coloured in basal</td>
<td>Femora I to III red coloured through-</td>
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<tr>
<td>half, on the end of femora I with a</td>
<td>out without white markings.</td>
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<tr>
<td>bright patch exteriorly.</td>
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</tbody>
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Ferruginous coloured are in both species: the apex of the mandibles, antennal scapes totally, underside of the flagellum, a little dot on temples, scutellum, postscutellum, first tergite except the white apical band, tibiae and tarsi. Wings brownish, veins and stigma black. White coloured are in both species: a broad band on the pronotum reaching sides, tegulae except the translucent disk and border; both markings are bordered by ferruginous colour. Apical bands, narrow on first tergite and broad on second tergite, somewhat enlarged on both tergites are bright, also lateral spots on sternite 2. The ground-colour is black.

Frons, vertex and thorax with a strong and dense punctuation, the somewhat shining intervals being narrower than the points. On sternites and tergites the punctuation is more or less scattered, the intervals are covered with a very dense micropunctuation. The last tergites and sternites almost without strong punctures. Length: 7 mm.
Stenodynerus difficilis (F. Mor. 1967) judaicus nov. ssp., (Blüthgen i. sched.) ♀.
Holotype: Israel, Maale Hachamisha 2.7.1946, ♀ leg. et coll. By.S.
Paratype: Israel, Jerusalem, 17.7. ♂, leg. By.S., coll. m.

The type specimens differ from diff. diff. (Mor.) as follows: a much coarser punctuation on first and second tergites and much broader apical bands on all tergites. On 1st and 2nd tergite the apical band is enlarged laterally. The markings are not bright yellow coloured as in d.d., but deep yellow, nearly orange. Size, sculpture and pilosity as in d.d.

Euodynerus (Syneudyneerus) egregius (H.-Sch. 1839) egregior nov. ssp.
Blüthgen i. sch. ♀ ♂.
Holotype: Wadi Qilt, Israel, 5.4.1947, ♀ leg. et coll. By.S.

The coloring differs from that of e. egregius (H.-Sch.): clypeus yellow, it has only a black spot in the middle. There are one spot on mesonotum, two spots on the scutellum and two large patches on the disk of the first tergite. The other markings of e. egregius (on pronotum, metanotum, tergites) are much more developed, throughout a deep yellow. Size and sculpture as in e. egregius.

The specimens of Pseudopipona (Syneudyneerus) egregia (H.S.) which A. Giordani-Solka (1952) mentioned belong to this subspecies.

Euodynerus (Syneudyneerus) gebi nov. spec. ♀ ♂
Allotype: ♂, Israel, En Geb, 23.4.1943, leg. et coll. By.S.

♀: Black, with nearly white markings, as follows: triangular spots on the base of the mandibles, a transverse band on the base of clypeus, narrow streaks on the lower part of scapes, orbital streaks reaching from the clypeus up to the sinus, large temple patches, a broad transverse pronotal band, interrupted in the middle, tegulae, except the translucent parts, parategulae, patches on the mesopleurae above, two extended patches on median segment, lateral patches on 1st and 2nd tergite, a narrow fascia on the end of the first tergite, except a triangular notch in the middle, a bisinuate apical band with a triangular notch in the middle, on the second tergite; narrow bisinuate fasciae on 3rd and
4th tergite and transverse patches on 5th and 6th tergite as well as lateral spots on 2nd to 4th sternite. Bright patches are on the outside of the end of femora I and II. Reddish coloured are mandibles, except the bright spots, the lower part of scapes, except the narrow bright streaks, lower side of flagellum, ends of femora (except the bright patches), tibiae and tarsi.

It may be useful to discuss the differences between this species and the similar Euodynerus (Syneudonynerus) egregius (H.Sch.). Punctuation on clypeus, thorax, tergites and sternites 3 to 6 is much finer and denser in gebi. The median segment is not raised over the back of the postscutellum as in egregius. There are only short angles, and seen from above, the lateral part is rounded and not angled as in egregius, but the postscutellum is rounded like in the former species. 2nd sternite at the base only with short indistinct longitudinal furrow (in egregius this furrow is distinct). Outer side of femora I to III and tibiae I is shining with only few deep points in egregius, but dull, chagreened and with a somewhat denser puncturing in gebi. The pilosity is like in egregius. In Euodynerus (Syneudonynerus) siegberti Gus. the median segment is not raised either, but the size is smaller, the punctuation very strong and all femora and tibiae are polished on the outside. The epicnemial carina is indistinct in gebi, conspicuous in egregius as well as in siegberti.

Length: 10 mm

♀: Black with light yellow markings: mandibles (except the dark teeth), clypeus, lower part of scape, orbital streaks filling up to sinus, temple spots, a broad transverse pronotal band, interrupted in the middle, tegulae except the translucent margin and disk, parategulae, patches on mesopleurae above, two dots on the scutellum, a transverse band on postscutellum, two patches on metanotum, a narrow apical band on first tergite, laterally enlarged by patches, and with a triangular notch in the middle; 2nd tergite with two separate lateral patches and a bisinuate apical band, formed in the middle like on the 1st tergite, bisinuate fasciae on tergites 3 to 5 (on 5th tergite not reaching sides) and a transverse patch on tergite 6. Light yellow coloured are an apical fascia on 2nd sternite and lateral spots on sternites 3 to 5. Coxae II and III nearly bright throughout. Bright coloured are femora I one-half exteriorly, femora II nearly fully and on femora III a small spot on the distal end, tibiae I to III and tarsi I above. Orange coloured are tarsi II and III and the lower side of flagellum.

Clypeus with a semicircular roundish emargination, much deeper than in egregius, only with a narrow translucent margin between the distal angle. The keels above the angles are in egregius o distinct, in gebi absent. Clypeus finely punctured, dullish in gebi and with strong and deep punctures in egregius. Sculpture on thorax and abdomen like in the female. The median segment is not raised, but the lateral part, seen from above, is more angled, not so distinctly as in egregius. The epicnemial carina is absent in the allotype. The pilosity is like in the female.

Length: 9 mm.
Fig. 1. Pterochelus grandiceps Blthg., female (a) and male (b) clypeus
Fig. 2. Pterochelus rothi Dusm., male clypeus
Fig. 3. Pterochelus bryinskii nov. sp., female clypeus
Fig. 4. Leptochilus (Sarochilus) alterego nov. sp., female clypeus
Fig. 5. Leptochilus (Sarochilus) gemma G.S., female clypeus
Fig. 6. Leptochilus (Sarochilus) praecans G.S., female clypeus