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CHRYSIDIDAE FROM SHANSI, NORTH CHINA*

(Hymenoptera)

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In 1942 Dr. Keizō Yasumatsu of the Kyushu University made a collecting excursion to Shansi, North China and brought a great many material of insects from that hitherto scientifically unexplored region. He kindly gave me a chance to study Chrysididae of that interesting collection, together with those examples which were collected and given in charge to him by Mr. Kotaro Shirahata, an amateur entomologist and a Japanese soldier at that time at the front.

The material consists of 37 examples, including 16 species and 10 forms, among them 2 species and 3 forms are new to science. This number cannot necessarily be said to be plentiful, but it must be a very toifful work to collect insects of all orders under such a bad condition and in the limited time. Furthermore, less numerous as it may be in quantity, the collection is very rich and interesting in quality, and will contribute much not only for filling the blank in the Palaearctic fauna of the family but also for the knowledge of the distribution of the group.

Before going further, I wish to express my hearty thanks to Prof. Tohru Uchida of the Hokkaido University for his kind helps rendered in the course of the present study and for reading through the manuscript. I also offer my highest admiration to the two entomologists

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Insects of Shansi, China. No. 4.

mentioned above who collected these valuable specimens in the face of danger, particularly to Prof. Keizô Yasumatsu I express my sincere gratitude not only for giving me the opportunity to study the interesting material but also for lending me a lot of literature. I am also indebted very much to Mr. Munemoto Yano in Tokyo, to Mr. Kichizo Takeuchi in Kyoto, to Prof. Teiso Esaki of the Kyushu University, to Prof. Toichi Uchida and to Prof. Chihisa Watanabe of the Hokkaido University for consulting the literature.

Family **Chrysididae**

Subfamily **Heteronychinae**

Group **Ellampini** Mocsáry

Genus **Notozus** Foerster, 1853

1. **Notozus mongolicus** (Buysson, 1891)

Ellampus horvathi Mocsáry var. *mongolicus* Buysson, Ann. Nat. Hofmus. Wien, XVI, p. 98, 1891; Bull. Mus. Paris, p. 219, 1911; Bischoff, Gen. Ins., Fasc. 151, Hymen. Chrysid., p. 8, 1913. *Ellampus (Notozus) cupratus* Mocsáry, Ann. Mus. Nat. Hung., IX, p. 443, 1911. *Notozus cupratus* Bischoff, Gen. Ins., Fasc. 151, Hymen. Chrysid., p. 6, 1913. *Notozus mongolicus* Trautmann, Goldwespen Europas, p. 29, 1927.

1♂, 12. VI. 1942, Wutaishan (五臺山) (Dr. K. Yasumatsu leg.).

Hab. North Mongolia, Turkestan (Naryn) and Caucasus.

Note. The cavitas facialis of this specimen is smooth and polished, but exhibits some faint oblique striae on the sides.

2. **Notozus yasumatsui** sp. nov.

♀. Body sparsely covered with short hoary white pubescence. Head and thorax violaceous, in oblique light the following portions bluish green: cavitas facialis below, the area along the inner orbit of eyes, sides and anterior margin of the pronotum, greater parts of mesonotum and of mesopleuron, base of scutellum and femora of all legs. Clypeus, tibiae of legs golden green. Abdomen greenish golden with the sides and apical portion igneously reflecting. Sternites green, partly golden. Mandibles except the middle, antennae except the basal two joints, tegulae and apical truncation of abdomen dark brown. Middle of mandibles and tarsi of legs testaceous brown. Apex of micro black. Wings hyaline, apical half slightly fuscous with the marginal portion somewhat paler.

Head seen from above transverse, a little wider than prothorax, seen in profile with the eye much broader than temple which is acutely convergent below and the posterior margin almost straight. Oculocellar space (s. the distance between the eye and a postocellus, the diameter of the ocellus being not taken into account)

slightly broader than postocellar space (s. the distance between the inner margins of the postocelli) the latter as broad as ocelloccipital space and twice as broad as front-postocellar space. Cavitas facialis broad, moderately deep and medially subcanaliculate. Clypeus, slightly raised in the middle, with the apex trisinate, oculo-mandibular space rather linear. Antennae comparatively long, the 3rd joint about as long as the two subsequent joints combined. Pronotum nearly as long as mesonotum. On the mesonotum parapsidal furrows well-defined. Mucro of postscutellum rather parallel, very slightly narrows apically, with nearly semicircular apex (in one Manchurian example the apex is rather obtuse triangular). Postero-lateral teeth of median segment long, comparatively narrow, acutely pointed at the apex. Abdomen elongate oval, basally truncate. Postero-lateral angles of the 2nd tergite seen in profile nearly 100° . The 3rd tergite long, with the lateral margin gently bisinuate and narrowly fringed with translucent membrane, also with a well-defined furrow running just above and parallel to the margin. Apical truncation lunate. Front femora beneath thoroughly dilated and broadly produced near the base, as usually seen in the genus. Tarsal claws tridentate (s. bipectinate).

Front minutely, shallowly and somewhat faintly, mesopleuron rather coarsely and subrugosely, scutellum largely and distinctly punctured-reticulate. Postscutellum and median segment very coarsely reticulate. Vertex behind the ocelli more shallowly and somewhat sparsely, pro- and mesonotum comparatively largely, shallowly and closely punctured. On the mesonotum the punctuation becoming larger and sparser posteriorly. Base of scutellum smooth and shining. Cavitas facialis impunctate and polished with the sides below minutely coriaceous. Clypeus almost smooth. Temples transversely and coarsely punctured-rugose. Abdominal tergites finely, distinctly and rather closely punctured; the punctuation laterally larger and subrugose, on the 2nd tergite somewhat sparser apically, on the 3rd larger, shallower and subcoriaceous posteriorly, in the furrow just above the lateral margin much more stronger and subrugose. Sternites of abdomen minutely coriaceous, somewhat largely so in the middle of the 2nd segment. Length 4.0 mm.

Holotype: 1 ♀, 16. V. 1942, Yüankii (垣曲) (Dr. K. Yasumatsu leg.).

Paratype: 1 ♀, 15. VI. 1937, South Manchuria: Kaiyüan (開原) (Dr. K. Okada leg.).

This new species closely resembles *N. panzeri* Fabricius, but differs in the following points: 1. The 3rd joint of antennae is subequal in length to the subsequent two joints taken together. 2. Lateral margin of the apical segment of abdomen is gently bisinuate, not deeply so. 3. Claws of tarsi are tridentate (s. 2-pectinate).

This species is also similar to *N. konowii* Buysson, but can easily be distinguished by the difference of the sculptures on the cavitas facialis, the punctuation on the abdomen, the structure of tarsal claw and colour of the abdomen. As regards the structure of the claw, this species is allied to *albipennis* Mocsáry and *sanzii* Gogor., but differs from them in the apically clouded wings and in the sculpture and colour of the body.

3. *Notozus panzeri* (Fabricius, 1804) (s. Dahlbom)

Chrysis scutellaris Panzer, Fauna Ins. Germ., Fasc. V, p. 51, 1798. *Chrysis Panzeri* Fabricius, Syst. Piez., p. 172, n. 9, 1804. *Ellampus Panzeri* Dahlbom, Hymen. Europ., II, Chrysid., p. 45, 1854. *Ellampus (Notozus) Panzeri* Mocsáry, Monogr. Chrysid., p. 69, n. 36, 1889. *Ellampus scutellaris* Dalla Torre, Cat. Hymen., Vol. VI, Chrysid., p. 16, 1892. *Notozus panzeri* Buysson, André, Spec. Hymen., VI, Chrysid., p. 102, 1891; Frautmann, Goldwespen Europ., p. 25, 1927; Schmiedeknecht, Hymen. nord u. mitt. Europ., p. 490, 1930. *Notozus scutellaris* Bischoff, Gen. Ins., Fasc. 151, Hymen. Chrysid., p. 6, 1913.

♂, 14. VI. 1942. Tungyehchen (東治鎮) (Dr. K. Yasumatsu leg.).

Hab. Europe, Algeria, Asia Minor, Pamir and Turkestan.

Note. The specific concept on *panzeri* Fabricius is considerably different according to the previous descriptions of the group. This determination is followed Dahlbom (1854).

The example is very similar to *N. rufitarsis* Tournier in the sculpture and coloration, but with the following characters: 1. Tarsal claws are quadridentate, the basal one is always very small. 2. Lateral margin of the 3rd tergite of abdomen is gently bisinuate, with the posterior sinus immediately before the caudal truncation not so deep as to be called incision. 3. Apical truncation lunate.

Genus *Ellampus* Spinola, 1806

1. *Ellampus sinensis* Tsuneki, 1947

Ellampus sinensis Tsuneki, Mushi, Vol. XVII, Pars 9, p. 44, 1947.

(A) f. *viridiauratus*, f. nov.

The new form differs from the typical form in the following points:

1. Coloration—greenish golden, with *cavitas facialis*, clypeus, scutellum, post-scutellum, sides of the whole body and sternites of abdomen pure metallic golden, somewhat cupreously reflecting; without dark macula on the disc of the abdomen.
2. Intervals between the punctures on head and thorax are very minutely, irregularly and shallowly wrinkled.
3. *Cavitas facialis* with feeble striae on the sides.

♀. Head and thorax comparatively densely, abdomen sparsely covered with greyish white pubescence. Coloration of the body as mentioned above; middle of mandibles broadly testaceous, apex black. Antennae except the two basal joints black, tarsi dark brown. Wings hyaline, veins brown.

Head a little wider than prothorax; *cavitas facialis* deep and rounded, subcanalicate in the middle. Antennae slender, the 3rd joint long, very slightly less than the length of the 4th and 5th united. Thorax convex; mesonotum with the parapsidal furrows shallow but well-defined; scutellum slightly convex, postscutellum gibbous conical; postero-lateral angles of the median segment broad, robust,

triangular, but acute at the apex. Abdomen oval, roundly excavated at the base. Lateral margin of the 3rd segment unisinate, with the posterior half narrowly scarios. Apical incision small but fairly deep and triangle in shape, with the vertical angle nearly 90°. Tarsal claws quadridentate (s. tripectinate).

Front closely covered with shallow rounded punctures of moderate size; vertex impunctate and smooth, with the posterior portion near the occipital margin transversely rugulose. Ocellar area irregularly rugulose. Cavitas facialis smooth and polished, with shallow and faint striae on the sides. Pronotum almost smooth, sparsely disposed with very feeble punctures, with the anterior and posterior margins somewhat distinctly punctured. Anterior portion of mesonotum that is hidden under the pronotum in the normal attitude of the wasp moderately closely pitted with small but clear punctures; the sides and posterior portion with large, shallow, rounded and sparse punctures; remainder of the area only faintly and irregularly punctured but shining. Pro- and mesopleura, scutellum; postscutellum and median segment coarsely punctured-reticulate; the reticulations on these areas nearly equal in size. Base of the scutellum without puncture and highly polished. The 1st segment of abdomen almost smooth, the 2nd and 3rd very finely and densely punctured. Punctuation on the latter basally smaller and closer, apically and laterally somewhat larger and sparser.

♂. A single male example captured at Yangchêng by Mr. K. Shirahata exhibits the following differences, but it is uncertain whether the characters are constant to the sex or not.

1. Cavitas facialis slightly shallow with very faint transverse striae in the middle. 2. Antennae much more incrassate than in ♀, and the 3rd joint distinctly shorter than the two subsequent joints taken together. 3. Head and thorax more greenish, abdomen more bluish than in ♀, with a large dark macula on the disc.

Length, ♀ 3.3, ♂ 3.5 mm.

This new form is very similar to *E. pusillus* Fabricius f. *schmiedeknechti* Mocsáry, but can easily be distinguished in the non-clouded wings, and in the sculptures on head and throat. This form also closely resembles *E. deauratus* Mocsáry (1914) from North China (Tientsing), but differs from it in the punctuation on head, thorax and the basal abdominal segment.

1♀, 9. VI. 1942, Henglingshan (横岭上)—Peihungkaokao (北洪高口) (Dr. K. Yasumatsu leg.), 1♀, 12. VI. 1942, Wutaishan (Dr. K. Yasumatsu leg.), 1♂, 1. VI. 1941, Yangchêng (陽城) (Mr. K. Shirahata leg.).

(B) f. **nigricans**, f. nov.

The characters of this new form are as follows: 1. Coloration: Black. The sides of clypeus below, anterior margin of pronotum, pro- and mesopleura, lateral margin of scutellum and of postscutellum, median segment almost entirely, sides and apex of abdomen and the tibiae of legs green. Distal half of mandibles reddish brown, tarsi testaceous. 2. Pronotum except the anterior and lateral margins and the disc of each section of mesonotum smooth and polished.

Mesonotum with a few scattered, large, rounded and shallow punctures along the parapsidal grooves and lateral margins. 3. Very small in size (length 3.0 mm.).

Other characters are well in accordance with those of the type.

1 ♂, 23. V. 1942, Kiu-Taiyüan (舊太原) (Dr. K. Yasumatsu leg.).

Hab. (Typical form) North China (Peking).

2. *Ellampus corensis* (Uchida, 1927)

Philoctetes punctatus Uchida var. *corensis* Uchida, Ins. Mats., Vol. I, n. 3, p. 153, 1927. *Philoctetes corensis* Uchida, Cat. Jap. Ins., Fasc. II, p. 1, 1933. *Ellampus corensis* Tsuneki, Matsumushi (Sapporo), Vol. I, n. 1, p. 33, 1946.

1 ♀ 1 ♂, 6. V. 1942, Taiku (太谷); 1 ♂? 6. VI. 1942, Nanpintsun (南坪村); 2 ♀ ♀ 1 ♂, 9. VI. 1942, Henglingshan - Peihungkaokao; 1 ♂? 12. VI. 1942, Wutaishan (Dr. K. Yasumatsu leg.).

Hab. Korea.

Note. This species was first described from Korea as a variety of *Philoctetes punctatus* Uchida, and later emended by the same author to an independent species of the genus. But the species, together with *punctatus*, should be transferred to the Genus *Ellampus*, by the characters of tarsal claws, of mesopleuron, and of apical margin of abdomen. Since there has been no description as to the differences between *corensis* and *punctatus* excepting the coloration, I gave the supplementary remarks below.

1. Tarsal claws: in *corensis*, fore legs with 5 or 6 teeth, mid- and hind legs with 5 teeth (with rare exception); in *punctatus*, in ♂ similar to *corensis*, in ♀, however, fore legs with 5 teeth, mid- and hind legs with 4 teeth (with rare exception).

2. Postscutellum: in *corensis* gibbous conical, in *punctatus* semispherical.

3. Punctuation on the thorax: in *corensis*, posterior portion of pronotum broadly, and mesonotum wholly except the medio-posterior feeble reticulation smooth, often with the fine feeble and sparse punctures on these areas and faint transverse striae on the lateral lobes of mesonotum. In *punctatus*, the punctuation similar but much stronger, always with sparse but distinct punctures on the smoothed areas and transverse clear striae between the punctures on the lateral lobes of mesonotum. The punctures rather small and not rounded.

Genus *Chrysellampus* Semenov, 1932

1. *Chrysellampus duplipunctatus* sp. nov.

Body covered sparsely with greyish white pubescence. Metallic green, with a bluish shine in certain light. Cavitas facialis, two basal joints and the 3rd joint above of antennae, pronotum except the two violaceous maculae laterally in the middle, humeral angles, mesopleuron, greater parts of scutellum, median segment, lateral portions of the 1st and 2nd abdominal segments and the legs except the 4 apical segments of tarsi greenish golden with somewhat cupreous effulgence.

Clypeus, base of each abdominal sternite cupreous golden. Ocellar area and vertex posteriorly light blue; two spots on pronotum, base of median- and whole of lateral-lobes of mesonotum violaceous black; basal triangular macula of scutellum, carinae of the reticulation on the postscutellum and the apical portion of the 3rd abdominal sternite black. Disc of abdomen dark green; flagella of antennae, apex of mandibles, and tarsi of legs dark brown. Wings hyaline, apical two-thirds fuscous, veins brownish black.

Head and thorax parallel and elongate, as in the case of the Genus *Chrysis*. Head from above a little wider than prothorax and thick, only slightly less than half as long as broad, occipital margin sharply edged and gently emarginated. Head in front with inner orbits of eyes slightly convergent below; in profile with temple much narrower than eye and sharply attenuate below and the posterior margin roundly curved. Ocelli in an isosceles triangle, much widest at the base; oculocellar space: postocellar space: ocellocipital space: front-postocellar space = 2:2:2:1. Cavitas facialis broad and moderately deep, subcanaliculate in the middle, with the upper end of the canal pitted. Clypeus shortly produced, curved upwards in the middle, with the apical margin trisinate. Oculo-mandibular space narrow, much shorter in length than the 4th joint of antennae. Antennae stout, the scape beneath flattened, from the 4th apically the joint broadened and somewhat dilated, but attenuating apically, the 7th the broadest. The 3rd joint long, about as long as the 4th and 5th put together, from the 6th joint apically except the distal one each joint slightly broader than long. Pronotum shorter, mesonotum slightly longer than head, parapsidal furrows on mesonotum well-defined. Mesopleuron slightly elongate posteriorly (Pl. 8, fig. A). Anterior epicnemium enclosed by the carinae which, on the inner margin posteriorly well-defined and very strong, but anteriorly obsolete. Postscutellum posteriorly elongate, seen in profile the dorsal margin not elevated above the surface of the thorax and gently and roundly inclined posteriorly. Postero-lateral teeth of median segment rather robust, nearly regular triangle but pointed at the apex. Abdomen slightly broader than thorax, very convex, with the sides of the two basal segments nearly parallel, and those of the 3rd roundly convergent apically. Apical margin bidentate in the middle (Pl. 7, fig. B), the teeth are broad triangular and obtuse at the apex; the sinus between the teeth broad triangle in form, with the vertical angle of about 120°. Claws of tarsi quinque-dentate (s. quadripectinate).

Front and vertex rather minutely reticulate; posterior portion of the latter transversely, genae obliquely punctured-subrugose; the areas just outside of the paired ocelli impunctate. Cavitas facialis polished, with the feeble transverse striae medially in the middle and on the lateral portions below, clypeus without puncture and shining. Pronotum more coarsely punctured-subreticulate, laterally punctured-subrugose; medio-anteriorly impunctate. Humeral angles smooth and highly polished. Mesonotum with shallow, rounded and sparse punctures, which on the median lobe posteriorly larger and angled, on the antero-lateral angles smaller and reticulate. Scutellum punctured as on the median lobe of mesonotum, with the medio-basal region narrowly impunctate. Postscutellum coarsely and regularly, median segment coarsely and irregularly reticulate. Mesopleuron with

large, rounded, sparse punctures, but the punctures obliquely subrugosely arranged, with very minute punctures on the intervals. In accordance with the particular character of the genus, this species, too, is provided with peculiar, delicate, coriaceous sculpture on the intervals between the above described punctures on head and thorax. Therefore, the surface becomes half-opaque. This sculpture is absent only on cavitas facialis, clypeus, antennal scape, humeral angles, tegulae of wings and on abdomen. The 1st and 2nd tergites of abdomen finely but distinctly, regularly and moderately closely punctured; the punctuation large and longitudinally subrugose laterally. The 3rd tergite at the base more closely and more finely, on the apical portion sparsely, rather coarsely and subrugosely punctured. The 2nd sternite of abdomen finely, the 3rd more finely coriaceous. Length, 6.3 mm.

Holotype: 1 ♀, 12. VI. 1942, Wutaishan (Dr. K. Yasumatsu leg.).

Note. This species is closely related in the general structure and sculpture to *Chrysellampus sculpticollis* (Abeille, 1878), but easily distinguished from that species by the difference of the general coloration, especially of the abdomen, by the relative length of the 2nd joint of antennae to the 3rd and by the form of the postscutellum.

f. **suzukii**, f. nov.

Body entirely golden-green, in some light pure golden. Clypeus, front below, two elongate lateral spots on pronotum and humeral angles always metallic golden. 1 ♀, 31. VII. 1941, Yangchêng (Mr. K. Suzuki (=Shirahata) leg.).

Group **Hedychrini** Mocsáry

Genus **Holopyga** Dahlbom, 1854

1. (A) **Holopyga gloriosa** Fabricius f. **amoenua** Dahlbom, 1854

Holopyga amoenua Dahlbom, Dispos. method., Hymen., II, p. 4, n. 1, 1845; Mocsáry, Monogr. Chrysid., p. 127, n. 121, 1889; Dritte. Asiat.forsch.-Reise E. Zichy, Bd. II, n. 295, 1901 (Kazan); Dalla Torre, Cat. Hymen., VI, Chrysid., p. 20, 1892. *Holopyga ovata* var. *b* Dahlbom, Hymen. Europ., II, Chrysid., p. 51, 1854. *Holopyga gloriosa* var. *amoenua* Buysson, André, Spec. Hymen., VI, Chrysid., p. 177, 1891; Ann. Soc. Ent. Fr., LXVI, p. 520, 1897 (Mongolia: Kouldia, Ourga); Bischoff, Gen. Ins., Fasc. 151, Hymen. Chrysid., p. 12, 1913; Trautmann, Goldwespen Europ., p. 51, 1927; Schmiedeknecht, Hymen. nord u. mitt. Europ., p. 493, 1930.

1 ♀, 18. VII. 1941; 1 ♂, V. 1941, Yangchêng (Mr. K. Shirahata leg.).

Hab. North Africa, Europe, Asia Minor, Turkestan, Siberia and Mongolia.

(B) f. **viridis** (Guérin, 1842), nec Cresson

Hedychrum viride Guérin, Rev. Zoolog., p. 150, 1842. *Holopyga ovata* var. *a* Dahlbom, Hymen. Europ., II, p. 52, 1854. *Holopyga amoenua* var. *viridis* Mocsáry,

Monogr. Chrysid., p. 128, 1889; Dalla Torre, Cat. Hymen., VI, Chrysid., p. 21, 1892. *Holopyga gloriosa* var. *viridis* Buysson, André, Spec. Hymen., VI, Chrysid., p. 178, 1891; Bischoff, Gen. Ins., Fasc. 151, Hymen. Chrysid., p. 13, 1913; Trautmann, Goldwespen Europ., p. 51, 1927; Schmiedeknecht, Hymen. nord u. mitt. Europ., p. 493, 1930; Tsuneki, Mushi, Vol. XVII, Pars 9, p. 46, 1947.

1♀, 9. V. 1941, Yangchêng (Mr. K. Shirahata leg.).

Hab. Europe, North Africa. (Asia?—Trautmann).

Note. The tergites of abdomen of the example is rather pure golden in colour.

Genus *Hedychridium* Abeille, 1878

1. *Hedychridium integrum* (Dahlbom) f. *cupratum* (Dahlbom, 1845)

Chrysis integra var. *c* Dahlbom, Exercit. Hymen., III, p. 35, 1831–1833. *Hedychrum cupreum* Dahlbom, Disp. Spec. Hymen., p. 3, 1845. *Hedychrum cupratum* Dahlbom, Hymen. Europ., II, p. 84, n. 47, 1854. *Holopyga* (*Hedychridium*) *integra* Mocsáry, Monogr. Chrysid., p. 144, n. 146, 1889. *Holopyga* (*Hedychridium*) *cuprata* Mocsáry, *ibid.*, p. 153, n. 158. *Holopyga cuprata* Dalla Torre, Cat. Hymen., VI, Chrysid., p. 24, 1892. *Hedychridium integrum* Buysson, André, Spec. Hymen., VI, Chrysid., p. 197, 1891; Schmiedeknecht, Hymen. Mitteleurop., p. 311, 1907; Bischoff, Gen. Ins., Fasc. 151, Hymen. Chrysid., p. 15, 1913. *Hedychridium integrum* var. *cupratum* Trautmann, Goldwespen Europ., p. 59, 1927; Schmiedeknecht, Hymen. nord u. mitt. Europ., p. 494, 1930.

1♀, 1. VI. 1942, Chenhaissu (鎮海寺) (Dr. K. Yasumatsu leg.).

Hab. Europe and North Africa.

Note. This species has been reported from Japan, but the determination may be incorrect.

Genus *Hedychrum* Latreille, 1806

1. *Hedychrum coerulescens* Shuckard, 1337, nec Lepeletier, nec Chevrier.

Hedychrum coerulescens Shuckard, Ent. Mag., IV, p. 172, 1837; Radoszkowsky, Horea Soc. Ent. Ross., XXIII, p. 11, 1888; Mocsáry, Monogr. Chrysid., p. 156, n. 160, 1889; Dalla Torre, Cat. Hymen., VI, Chrysid., p. 31, 1892; Bischoff, Gen. Ins., Fasc. 151, Hymen. Chrysid., p. 18, 1913. *Hedychrum chalybaeum* Dahlbom, Hymen. Europ., II, p. 64, 1854 (var. *b*); Buysson, André, Spec. Hymen., VI, Chrysid., p. 214, 1891; Trautmann, Goldwespen Europ., p. 77, 1927; Schmiedeknecht, Hymen. nord u. mitt. Europ., p. 495, 1930; Mólitor, Konowia, XIV, 1, p. 4, 1935.

1♂, 25. VI. 1940, Changtzemen (長子門) (Mr. K. Shirahata leg.).

Hab. Europe, North Africa.

Subfam. **Holonychinae**Group **Pseudochrysidini** BischoffGenus **Stilbum** Spinola, 1808**1. Stilbum cyanurum cyanurum** (Förster) f. **calens** (Fabricius, 1781)

? *Chrysis nobilis* Sulzer, Abgek. Gesch. Ins., p. 193, 1776. *Chrysis calens* Fabricius, Spec. Ins., I, p. 455, 1781. *Stilbum calens* Dahlbom, Hym. Eur., II, Chrysid., p. 360, 1854. *Stilbum cyanurum* Förster var. *nobile* Mocsáry, Monogr. Chrysid., p. 191, 1889: Dalla Torre, Cat. Hymen., VI, Chrysid., p. 39, 1892; Radoszkowsky, Horae Soc. Ent. Ross., XXVII, p. 43, 1893. *Stilbum splendidum* Fabricius var. *calens* Buysson, André, Spec. Hymen., VI, Chrysid., p. 680, 1891; Ann. Soc. Ent. Fr., LXVI, p. 544, 1897 (Mongolia: Ta-wan). *Stilbum cyanurum* Förster var. *calens* Bischoff, Gen. Ins., Fasc. 151, Hymen. Chrysid., p. 26, T. I, f. 18, 1913; Schmiedeknecht, Hymen. nord u. mitt. Europ., p. 497, 1930; Hammer, Arkiv f. Zool., Bd. 27 A, n. 23, 1934 (South Mongolia: Hatjertu-Gol). *Stilbum cyanurum cyanurum* Förster f. *calens* Zimmermann, Archiv f. Naturg. Zool. B., Bd. 6, H. 4, p. 655, 1937; Tzuneki, Mushi, XVII, Pars 9, p. 52, 1947 (Inner Mongolia: Apaka).

1 ♂, 6. VI. 1942, Nanpintsun (Dr. K. Yasumatsu leg.).

Hab. North Africa, South and Middle Europe, Asia Minor, Mongolia (Ta-wan, Hatjertu-Gol, Apaka), Siberia, Manchuria (Tonei, Mr. S. Asahina leg.).

Note. The abdomen of the example is greenish golden in colour, with somewhat igneous effulgence in certain light, but not so strongly igneous as seen in the Mongolian or Manchurian examples.

Genus **Euchroeus** Latreille, 1809**1. Euchroeus purpuratus mongolicus** Tsuneki, 1947

Euchroeus purpuratus mongolicus Tsuneki, Mushi, Vol. XVII, Pars 9, p. 54, 1947.

1 ♂, 6. VI. 1942, Nanpintsun (Dr. K. Yasumatsu leg.).

Hab. Mongolia (Apaka, Tsuneki leg.).

Note. This subspecies is characterized by the coloration. ♀. Head, thorax and a large lateral macula on the 1st and 2nd tergites of abdomen reddish cupreous golden. Anterior half of the median lobe of mesonotum, (often tegulae of wings), center of the median segment and the remainder of the abdominal tergites purple. Abdominal sternites cupreous or greenish golden, in the latter case the 1st and the base of the 2nd sternite cupreous. ♂, head and thorax similar to ♀. Abdominal tergites reddish cupreous golden. Basal truncated area and apical margin of the 1st segment, basal transverse band and median carina (rarely posterior triangular macula, too, as occurring in ♀) on the 2nd tergite and total 3rd tergite purple.

Group **Euchrysidini** BuyssonGenus **Chrysis** Linné, 1767**1. Chrysis (Holo-chrysis) davidi** Buysson, 1897

Chrysis Davidi Buysson, Ann. Soc. Ent. Fr., LXVI, p. 524, Pl. 18, Fig. 3 a & 3 b, ♀, 1897; Wu, Cat. Ins. Sinens., VI, p. 119, 1941. *Chrysis (Holo-chrysis) austriaca* Tosawa, Trans. Kansai Ent. Soc., II, p. 44, 1931; Uchida, Cat. Jap. Ins., II, p. 3, 1933. *Chrysis (Holo-chrysis) iwata* Tosawa, Takarazuka Konchukan po, No. 20, p. 12, 1942.

1 ♀, 9. V. 1942, Hengshuichen (橫水鎮)—Henglingkuan (橫嶺關) (Dr. K. Yasumatsu leg.).

Hab. Manchuria (Jehol), Korea and Japan.

2. Chrysis (Tetrachrysis) fuscipennis Brullé, 1846

Chrysis fuscipennis Brullé, Hymen., IV, p. 38, n. 24, 1846; Buysson, André, Spec. Hymen., VI, Chrysid., p. 441, 1891; Ann. Soc. Ent. Fr., LXVI, p. 529, 1897 (China: Kiang-si, Nord de Peking, Jehol); Bingham, Fauna Brit. Ind., Hymen., Vol. II, p. 467, n. 548, 1903; Sickmann, Zool. Jahrb., Syst., Bd. 8, 1894; Wu, Cat. Ins. Sinens., VI, p. 120, 1941. *Chrysis (Tetrachrysis) fuscipennis* Mocsáry, Monogr. Chrysid., p. 370, 1889; Philip. Journ. Sci., VIII, n. 4, sec. D, p. 291, 1913; Uchida, Ins. Mats., I, n. 3, 1927; Tosawa, Trans. Kansai Ent. Soc., No. II, p. 48, 1931; Hoffmann, Lingnan Sci. Journ., XVII, (3), p. 449, 1938; Tsuneki, Mushi, Vol. XVII, Pars 9, p. 55, 1947 (North China: Peking). (The references are mainly confined to those concerning to East Asia).

1 ♀, 14. VII. 1941; 1 ♂, 15. V. 1941, Yangchêng (Mr. K. Shirahata leg.).

Hab. Asia Minor, Siberia (Amur) China, Manchuria, Korea, Japan (Honshu, Shikoku, Kyushu), Formosa, Philippines, Borneo, Celebes, Java, Sumatra, Cochin-China, India and Australia.

Note. The specimen from Shansi is violaceous blue in colour.

3. Chrysis (Tetrachrysis) chrysochlora Mocsáry, 1889

Chrysis (Tetrachrysis) chrysochlora Mocsáry, Monogr. Chrysid., p. 515, ♀, 1889 (Turkestan: Taschkend); Bischoff, Gen. Ins., Fasc. 151, Hymen. Chrysid., p. 49, 1913. *Chrysis chrysochlora* Buysson, André, Spec. Hymen., VI, Chrysid., p. 466, 1891; Dalla Torre, Cat. Hymen., VI, Chrysid., p. 50, 1892. *Chrysis (Tetrachrysis) carnifex* Mocsáry, Monogr. Chrysid., p. 517, ♂, 1889 (China: Ta-tschian-sy); Bischoff, Gen. Ins., Fasc. 151, Hymen. Chrysid., p. 49, 1913. (nec Uchida, Ins. Mats., I, 3, p. 153, 1927; Cat. Jap. Ins., II, Hymen. Chrysid., p. 4, 1933). *Chrysis carnifex* Dalla Torre, Cat. Hymen., VI, Chrysid., p. 49, 1892; Wu, Cat. Ins. Sinens., VI, p. 119, 1941.

1 ♂, 9. V. 1942, Hengshuichen—Henglingkuan (Dr. K. Yasumatsu leg.).

Hab. Turkestan (Taschkend) and China (Ta-tschian-sy).

Note. A single example from Shansi differs slightly from the original description of *carnifex* Mocsáry in the punctuation, but should be referred to the species. On the other hand, *carnifex* is admitted to be the male of *chrysochlora* Mocsáry. The latter has the priority by 2 pages and according to the International Rules of Zoological Nomenclature the specific name *chrysochlora* should be adopted. The detailed investigation of the species will be found in another paper, being now in preparation.

4. *Chrysis (Tetrachrysis) inaequalis* Dahlbom, 1845

Chrysis inaequalis Dahlbom, Dispos. Spec. Hymen., II, p. 8, n. 4, 1845; Hymen. Europ., II, p. 278, n. 156, 1854; Dalla Torre, Cat. Hymen., VI, Chrysid., p. 71, 1892; Buysson, André, Spec. Hymen., VI, Chrysid., p. 570, 1891. *Chrysis (Tetrachrysis) inaequalis* Mocsáry, Monogr. Chrysid., p. 483, 1889; Bischoff, Gen. Ins., 151, Hymen. Chrysid., p. 53, 1913; Trautmann, Goldwespen Europ., p. 153, 1927; Tsuneki, Mushi, Vol. XVII, Pars 9, p. 56, 1947 (North China: Peking).

1 ♀, 23. V. 1942, Kiutaiyüan; 1 ♂, 8. V. 1942, Hengshuichen; 1 ♂, 9. VI. 1942, Hengshuichen—Henglingkuan (Dr. K. Yasumatsu leg.).

Hab. South and Central Europe, North Africa, Caucasus, Asia Minor, Persia, Turkestan and North China.

5. *Chrysis (Tetrachrysis) ignita* Linné, 1761

Chrysis ignita Linné, Fauna Suec., Ed. II, p. 414, n. 1665, 1761; Buysson, Ann. Soc. Ent. Fr., LXVI, p. 535, 1897 (Nord de Peking). *Chrysis (Tetrachrysis) ignita* Mocsáry, Dritte Asiat. Forsch.-Reise Eugen Zichy, Bd. II, 1901 (Siberia: Jarovskaja); (var. *fulgidaeformis*) Bischoff, Mitt. Zool. Mus. Berlin, Bd. 16, H. 2, p. 224, 1930 (Kitschik-Karamnk, Karateghin); Trautmann, Ent. Ergebn. Schwed. Kamtchaka Exped. 1920-1922, Hymen. Chrysid., p. 5, 1935 (Petropavlovsk, Kosyrevsk); Uchida, Ins. Jehol, VII, Hymen. Chrysid., p. 1-3, 1935; Tsuneki, Mushi, Vol. XVII, Pars 9, p. 55, 1947 (Peking). (The references are confined only to those relating to the eastern parts of the Continent).

1 ♀, 9. V. 1942, Hengshuichen—Henglingkuan; 1 ♂, 9. VI. 1942, Henglingshan—Peihungkaokao; 1 ♂, ?. 1942 (Dr. K. Yasumatsu leg.).

Hab. Throughout the Palaearctic Region.

f. *comta* Förster, 1853

Chrysis comta Förster, Verh. Nat. Ver. Preuss. Rheinl., X, p. 314, 1853; Raodzkowsky, Horae Soc. Ent. Ross., XXIII, p. 29, 1888; Mocsáry, Monogr. Chrysid., p. 481, 1889. *Chrysis ignita* var. *comta* Buysson, André, Spec. Hymen., VI, p. 582, 1895. *Chrysis (Tetrachrysis) ignita* var. *comta* Bischoff, Gen. Ins., Fasc. 151, p. 53, 1913; Trautmann, Goldwespen Europ., p. 145, 1927. *Chrysis ignita* var. *Hammer*, Arkiv f. Zool., Bd. 27 A, n. 23, p. 3, 1934 (South Mongolia: Hutjertu-Gol).

1♀, 23. IV. 1940, 1♂, 8. V. 1940, Luan-hsien (路安縣)? (Mr. K. Shirahata leg.);
1♂, 6. VI. 1942, Nanpintsun (Dr. K. Yasumatsu leg.).

Hab. Europe, Caucasus, Asia Minor and S. Mongolia.

6. *Chrysis* (*Hexachrysis*) *principalis* Smith, 1874

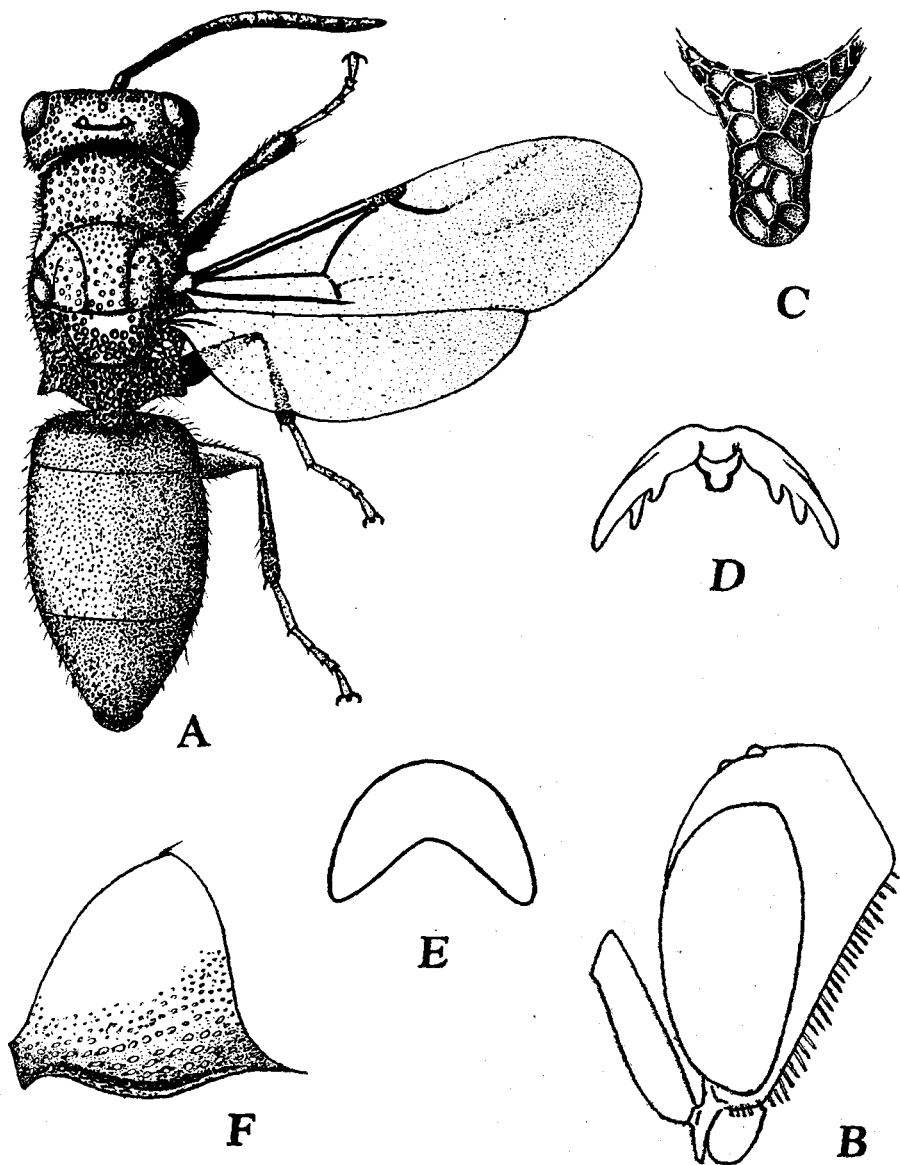
Chrysis principalis Smith, Trans. Ent. Soc. London, p. 461, n. 13, 1874. *Chrysis* (*Hexachrysis*) *principalis* Mocsáry, Monogr. Chrysid., p. 559, 1889; Bischoff, Gen. Ms., 151, Hymen. Chrysid., p. 67, 1913; Uchida, Ins. Mats., I, n. 3, p. 155, 1927; Cat. Jap. Ins., II, Hymen. Chrysid., p. 4, 1933; Nakatomi, Ent. World (Tokyo), II, n. 7, p. 124, 1934 (Korea).

1♀, 16. VIII. 1941, Yangchéng (Mr. K. Shirahata leg.).

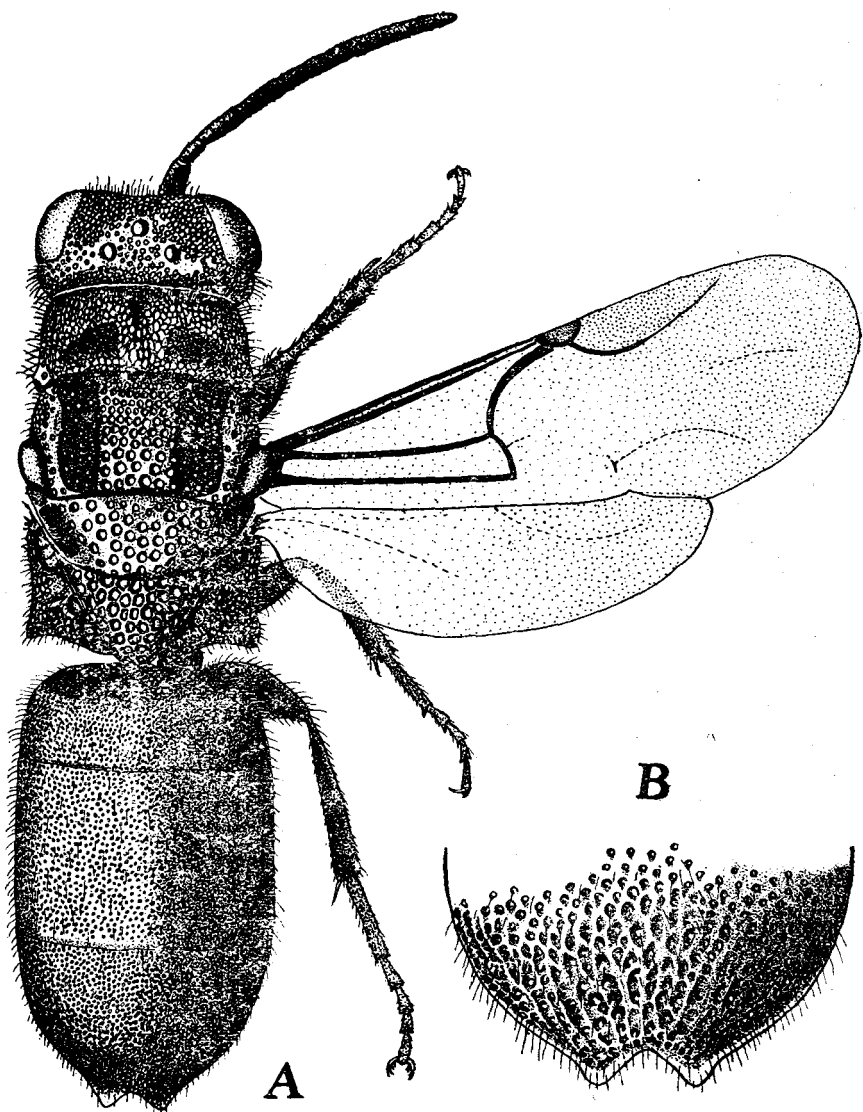
Hab. Himalaya, Bengal, Ceylon, China, Sunda and Korea.

Explanation of Plates

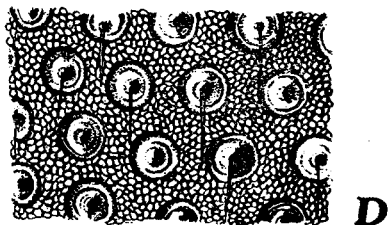
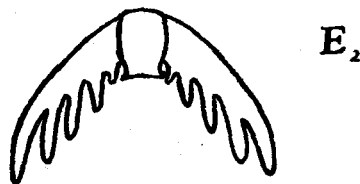
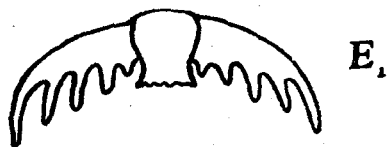
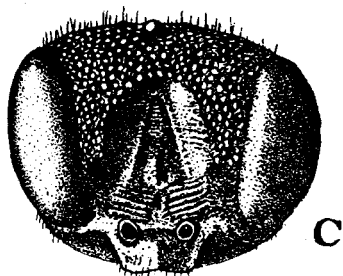
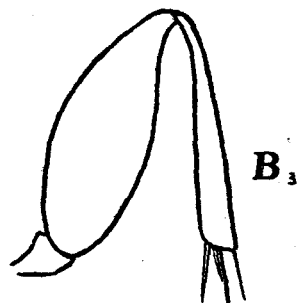
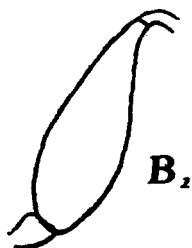
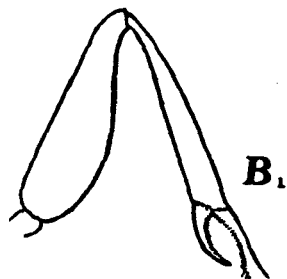
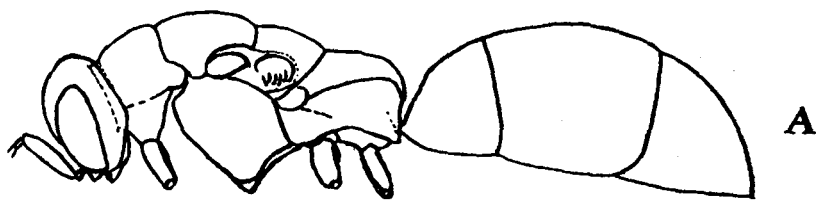
- Plate 6, fig. A. *Notozus yasumatsui* Tsuneki, sp. nov.
B. Head of do, seen in profile.
C. Postscutellar mucro of do.
D. Tarsal claw of do.
E. Caudal appendage of do.
F. Lateral view of the 3rd segment of abdomen of do.
- Plate 7, fig. A. *Chrysellampus duplipunctatus* Tsuneki, sp. nov.
B. The 3rd tergite of abdomen of do.
- Plate 8, fig. A. *Chrysellampus duplipunctatus*, lateral view.
B₁, B₂, B₃. Fore-, mid-, and hind-femur of do respectively.
C. Head of do, seen in front.
D. Punctuation on the head and thorax of do.
E₁, E₂, E₃. Tarsal claw of fore-, mid- and hind-leg of do respectively.



Chrysididae from Shansi, N. China



Chrysididae from Shansi, N. China



Chrysididae from Shansi, N. China