Galathea with short rostrum, armed on each side with 4 teeth, the two posterior being less important than the two anterior. The fingers of the chelæ impinge through their whole length; outer margin of the hand furnished with 3 or 4 small spines.

Hab. Trawling-ground, Plymouth, common; Moray Frith, Scotland.

This species unites *G. Andrewsii* with *G. nexa*, and, I think, has often been mistaken for the young of the latter; but *G. nexa*, so far as my experience goes, is a species peculiar to the north of England, whereas *G. dispersa*, I anticipate, will be found to be the most universally dispersed, in deep water, of any of the species known. It can always be detected from *G. nexa* by the form of the hand and the manner in which the fingers impinge: in *G. nexa* the hand is broad towards the extremity, and the fingers meet only at the apex; in *G. dispersa* the hand gradually narrows to the apex, and the fingers meet each other through their whole length, the inner margin of the finger being finely serrated, the thumb not.

It also may be distinguished from *G. Andrewsii* by the breadth of the hands, which are narrow and round in *G. Andrewsii*, and moderately broad and flat in *G. dispersa*.

By an examination of the texture of the integument under a magnifying power of low degree, the surface of *G. dispersa* will be seen distinctly to differ from that of any of the others; it is covered with flat scales, fringed with short cilia. The length of the animal, including the arms, is about $2\frac{1}{4}$ inches.

Catalogue of Hymenopterous Insects collected at Celebes by Mr. A. R. Wallace. By Frederick Smith, Esq., Assistant in the Zoological Department, British Museum. Communicated by W. W. Saunders, Esq., F.R.S., F.L.S.

[Read April 15th, 1858.]

This collection of the Hymenoptera of Celebes is specially interesting, as adding greatly to our knowledge of the geographical range of many well-known species, while the additions made to the Fossorial group contain many of great beauty and rarity. A new species belonging to the tribe of Solitary Wasps, *Odynerus clavicornis*, is perhaps the most interesting insect in the collection; this Wasp has clavate antennæ, the flagellum being broadly dilated towards the apex, convex above and concave beneath. I am not acquainted with any other insect belonging to the Vespidious group which exhibits such an anomaly.

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Fam. ANDRENIDÆ, *Leach.*

Gen. SPHECODES, *Latr.*

1. SPHECODES INSULARIS. *S.* niger, abdominis segmentis primo secundo et tertio (basi) rubris; alis hyalinis.

Male. Length 3½ lines. Head and thorax black, closely and strongly punctured; the face below the antennæ with silvery-white pubescence; the joints of the flagellum submoniliform; the mandibles ferruginous. Thorax: the tegulæ pale rufo-testaceous, wings hyaline, the nervures ferruginous; the metathorax coarsely rugose; the articulations of the legs and the tarsi ferruginous. Abdomen: the first, second, and base of the third segments red, the apical ones black, very finely and closely punctured, with the apical margins of the segments smooth and shining; a black spot in the middle of the basal segment.

Hab. Celebes.

Gen. NOMIA, *Latr.*

1. NOMIA PUNCTATA. *N.* nigra nitida punctata, alis nigro-fuscis.

Male. Length 4½ lines. Shining black: head and thorax coarsely punctured, the metathorax ruggedly sculptured, truncate at the apex, the truncation and sides smooth with a few fine punctures; the abdomen closely and rather finely punctured, the apical margins of the segments smooth and shining. The tips of the mandibles, the tarsi and apex of the abdomen rufo-testaceous, the wings fuscous.

Hab. Celebes.

2. NOMIA FLAVIPES. *N.* nigra pedibus flavis, abdomine cinereo fasciato, alis hyalinis.

Female. Length 3¼ lines. Black; the face and cheeks densely clothed with short cinereous pubescence, the vertex thinly so; the margins of the prothorax, mesothorax and scutellum with a line of pale ochraceous pubescence, the disk of the thorax thinly covered with short pubescence of the same colour, the emargination of the metathorax as well as its sides with longer pubescence of the same colour; the base of the abdomen and basal margin of the second and following segments covered with short cinereous pubescence. The flagellum beneath fulvous; the mandibles ferruginous. The legs reddish-yellow, with the coxæ and base of the femora black; the wings hyaline; the tegulæ yellow, the nervures pale testaceous.

Hab. Celebes.

3. NOMIA FORMOSA. *N.* capite thoraceque nigris; abdomine chalybeo; marginibus apicalibus segmentorum cæruleo fasciatis.

Female. Length 5½ lines. Head and thorax black and very closely punctured; the face covered with griseous pubescence; the clypeus with a central longitudinal carina. Thorax: the apical margin of the prothorax, the margins of the scutellum, and the sides of the meta-

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thorax covered with a dense short ochraceous pubescence; the disk of the thorax thinly sprinkled with short black hairs; the posterior tibiæ obscurely ferruginous; the tarsi ferruginous; the legs covered with bright golden-yellow pubescence; wings subhyaline, the nervures ferruginous; the tegulæ yellow with a fuscous stain in the middle. Abdomen obscurely chalybeous, closely punctured, the two basal segments strongly so; the apical margins of the segments with smooth shining narrow blue fasciæ.

Male. Closely resembling the female, but with the legs black; the posterior femora incrassate, the tibiæ narrow at their base and broadly dilated at their apex, which, as well as the calcaria, are pale testaceous.

This species closely resembles a species from North China, *N. chalybeata*, Westw. MS., from which it is readily distinguished by the form of the fourth ventral segment, which is notched in the middle, rounded, and then emarginate with the lateral angles rounded; in the species from China the margin is arched, and fringed with fulvous pubescence.

4. NOMIA HALIOTOIDES. *N.* nigra, pube cinerea tecta, abdominis segmentis intermediis pube alba fasciatis.

Female. Length 4½ lines. Black; head and thorax opake, and thinly clothed with cinereous pubescence, that on the disk of the thorax and margin of the scutellum slightly ochraceous. The flagellum fulvous beneath, the mandibles ferruginous at their apex; the tarsi ferruginous, wings hyaline, nervures fuscous, stigma testaceous. Abdomen shining, delicately punctured; the basal margins of the second, third, and fourth segments with a band of cinereous pubescence, attenuated in the middle.

Hab. Celebes.

Fam. DASYGASTRÆ.

1. MEGACHILE INCISA. *M.* nigra, rude et dense punctata, facie fulvo pubescente; alis fuscis, segmentis abdominis marginibus multo depressis.

Male. Length 5½ lines. Black; closely and strongly punctured, the punctures confluent on the abdomen. The face clothed with fulvous pubescence. The tarsi obscurely rufo-piceous, the claws ferruginous; wings dark fuscous, their base hyaline. Abdomen: the apical margins of the segments smooth, impunctate, their basal margins very deeply depressed; a deep fovea at the tip of the apical segment; the head, thorax, and abdomen clothed beneath with short cinereous pubescence.

Hab. Celebes.

2. MEGACHILE FULVIFRONS. *M.* nigra, delicatule punctata; facie dense fulvo pubescente; thoracis lateribus abdomineque subtus fulvo pubescentibus; fasciis marginalibus abdominis fulvis.

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Female. Length 7 lines. Black; head and thorax closely punctured, the abdomen delicately so and shining; the mandibles stout, with two acute teeth at their apex, shining and covered with oblong punctures; the face, sides of the thorax, and abdomen beneath, densely clothed with fulvous pubescence; the apical margins of the segments of the abdomen above with narrow fasciæ of short fulvous pubescence; the abdomen in certain lights has a metallic tinge.

The *male* is similarly clothed to the female, the margins of the segments are deeply depressed, and that of the apical segment slightly notched in the middle.

Hab. Celebes.

3. MEGACHILE TERMINALIS. *M.* nigra, capite thoraceque dense punctatis; abdomine pube nigra vestito; segmentis duobus apicalibus pube alba vestitis; alis fuscis.

Female. Length 9 lines. Black; the face with tufts of black pubescence above the insertion of the antennæ; mandibles very stout, with an acute tooth at their apex, the inner margin subdentate, and covered with fine cinereous pubescence. Thorax with black pubescence at the sides of the metathorax; the wings dark fuscous. Abdomen clothed with black pubescence; the fifth and sixth segments clothed with ochraceous pubescence above, that on the sixth nearly white.

Hab. Celebes.

This species resembles the *M. ornata*; but when viewed beneath, the different colour of the pollen-brush at once separates them.

Gen. CERATINA, *Spin.*

1. Ceratina viridis, *Guér. Icon. Reg. Ann.* 444. t. 73. f. 6.

Hab. India (Bengal, N. India), Ceylon, Celebes, China.

2. Ceratina hieroglyphica, *Smith, Cat. Hym. Ins.* ii. 226.

Hab. Northern India, Celebes, Philippine Islands, Hong Kong.

Fam. DENUDATÆ.

1. STELIS ABDOMINALIS. *S.* dense punctata, capite thoraceque nigris, abdomine ferrugineo; alis nigro-fuscis violaceo iridescentibus.

Male. Length 5 lines. Head and thorax black, abdomen ferruginous; head and thorax strongly punctured, the scutellum very strongly so; the sides of the face and the anterior margin of the face fringed with white pubescence. The posterior margin of the scutellum rounded; wings dark brown with a violet iridescence. Abdomen ferruginous and closely punctured.

Hab. Celebes.

2. CŒLIOXYS FULVIFRONS. *C.* nigra, rude punctata, facie pube fulva vestita; alis fuscis cupreo iridescentibus.

Male. Length 6 lines. Black; the head and thorax with large con-

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fluent punctures; the face clothed with fulvous pubescence. Thorax: a stout tooth on each side of the scutellum at its base; wings dark brown with a coppery effulgence, subhyaline at their base; beneath clothed with short cinereous pubescence. Abdomen: elongate, conical; closely punctured, with the apical and basal margins of the segments smooth; the apical segment with a tooth on each side at its base and four at its apex; beneath the margins of the segments fringed with pale pubescence; the apical margin of the fourth segment notched in the middle; the fifth entirely clothed with pale pubescence.

Hab. Celebes.

Fam. SCOPULIPEDES.

Gen. ANTHOPHORA, *Latr.*

1. Anthophora zonata, *Linn. Syst. Nat.* i. 955. 19.

Hab. India, Ceylon, Malacca, Sumatra, Borneo, Philippine Islands, Hong Kong, Shanghai, Celebes.

Gen. XYLOCOPA, *Latr.*

1. Xylocopa fenestrata, *Fabr. Syst. Piez.* p. 339. 6. ♂.

Hab. India, Celebes.

2. Xylocopa æstuans, *Linn. Syst. Nat.* 961. 53.

Hab. India, Java, Singapore, Celebes.

3. Xylocopa Dejeanii, *St. Farg. Hym.* ii. 209. 59.

Hab. Java, Borneo, Sumatra, Celebes.

4. Xylocopa collaris, *St. Farg. Hym.* ii. 189. 26.

Hab. India, Sumatra, Malacca, Borneo, Celebes.

5. XYLOCOPA NOBILIS. *X.* nigra, pube nigra induta; abdominis basi pube flava, apice lateritio.

Female. Length 11 lines. Black; a narrow line of pale fulvous pubescence on the margin of the thorax in front, a patch of the same colour on each side of the metathorax, and the basal segment of the abdomen covered above with similar pubescence; the apical margin of the third and fourth segments, and the fifth and six entirely, covered with bright brick-red pubescence; the wings black, with coppery iridescence.

Hab. Celebes.

Fam. SOCIALES.

1. APIS ZONATA. *A.* nigra, thoracis lateribus dense ochraceo pubescentibus; alis fumatis; abdomine nitido, segmentis secundo tertio quartoque basi niveo pubescentibus.

Worker. Length 8–8½ lines. Black; the head and thorax opake, the abdomen shining; the clypeus smooth and shining, the flagellum rufo-piceous beneath; the anterior margin of the labrum narrowly,

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and the apex of the mandibles, ferruginous; the face with a little fine short cinereous pubescence above the insertion of the antennæ; the vertex with long black pubescence; the eyes covered with short black pubescence. Thorax: the sides with ochraceous pubescence; wings smoky, the superior pair darkest at their anterior margin beyond the stigma. Abdomen: a snow-white band at the basal margin of the second, third, and fourth segments, the bands continued beneath, but narrower.

Hab. Celebes, Philippine Islands.

Specimens of this species denuded of their white bands would approach the *A. unicolor* of Latreille; but that insect is described as having the anterior wings black; in the present species both pairs are of the same smoky colour, not approaching black.

Fam. MUTILLIDÆ.

Gen. MUTILLA.

1. Mutilla sexmaculata, *Swed. Nov. Act. Holm.* viii. 286. 44. ♀.
Mutilla fuscipennis, *Fabr. Syst. Piez.* 436. 35. ♂.
Hab. India (Punjaub, &c.), China, Java, Celebes.

2. Mutilla unifasciata, *Smith, Cat. Hym.* pt. iii. p. 38.
Hab. India, Celebes.

3. Mutilla rufogastra, *St. Farg. Hym.* iii. 629. 51. ♂.
Hab. India, Celebes.

4. MUTILLA VOLATILIS. *M.* nigra, rude punctata et pubescens; capite abdomineque nitidis, alis fusco-hyalinis.

Male. Length 5–6 lines. Black. Head and thorax very coarsely punctured; head and disk of the thorax punctured; the metathorax opake, with a central abbreviated channel and covered with large shallow punctures; the eyes notched on their inner margin; wings fuscous and iridescent; the tegulæ smooth and shining. Abdomen shining and rather finely punctured; the basal segment narrow and campanulate; the margins of the segments thickly fringed with silvery-white hair; the cheeks, sides of the thorax, and beneath the legs and abdomen with scattered long silvery-white hairs.

Hab. Celebes.

Fam. SCOLIADÆ, *Leach.*

Gen. SCOLIA, *Fabr.*

1. Scolia erratica, *Smith, Cat. Hym. Ins.* pt. iii. p. 88. 10.
Scolia verticalis, *Burm. Abh. Nat.-Ges. Halle,* i. 37. 61.
Hab. India, Sumatra, Celebes.

2. Scolia aurulenta, *Smith, Cat. Hym. Ins.* pt. iii. p. 102. 80. (nec *Fabr.*).
Hab. Philippine Islands, Celebes.

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3. Scolia fimbriata, *Burm. Abh. Nat.-Ges. Halle*, i. p. 32. 24.
Hab. Java, Celebes.

4. Scolia dimidiata, *Guér. Voy. Coq. Zool.* ii. pt. 2. p. 248.
Hab. Senegal, Celebes.

5. Scolia terminata. *S.* nigra, clypeo mandibulisque flavis, thorace flavo variegato, alis hyalinis, abdomine flavo quinque-fasciato, apicisque marginibus flavis.

Male. Length 5 lines. Black; the clypeus, labrum, and mandibles yellow; the former with a triangular black spot in the middle; the latter ferruginous at their apex. The posterior margin of the prothorax, the tegulæ, a transverse curved line on the scutellum, and a spot on the postscutellum yellow; the anterior and intermediate tarsi, tibiæ, and knees, and the posterior tibiæ outside, yellow; a black line on the intermediate tibiæ beneath, and the apical joints of the tarsi fuscous; wings hyaline, the nervures ferruginous. Abdomen brightly prismatic; the margins of all the segments with a narrow yellow fascia, those on the second and third segments terminating at the sides in a large rounded macula; the fascia very narrow or obliterated on the sixth segment; the fasciæ on the second and third segments continued beneath.

Hab. Celebes.

6. Scolia agilis. *S.* nigra, mandibulis clypeoque flavis, alis fulvo-hyalinis, abdomine prismatico flavo quadrifasciato.

Male. Length 8 lines. Black and punctured, with thin long griseous pubescence; the vertex, disk of the thorax, and the abdomen shining; the mandibles and clypeus yellow, the latter with a black bell-shaped spot in the middle; wings fulvo-hyaline, the nervures ferruginous; the tibiæ with a yellow line outside. Abdomen beautifully prismatic; the first and three following segments with a yellow fascia on their apical margins, the second and two following much attenuated in the middle, or the fourth interrupted.

Hab. Celebes.

7. Scolia fulvipennis. *S.* nigra, antennis capiteque supra basin antennarum rubris, alis fulvo-hyalinis.

Male. Length 7 lines. Black; the antennæ and the head above their insertion ferruginous, the scape black, the head coarsely punctured. Thorax: coarsely punctured; the mesothorax with an abbreviated deeply impressed line in the middle of its anterior margin; wings fulvo-hyaline, the nervures ferruginous; the apex of the wings slightly fuscous, the anterior pair with two submarginal cells and one recurrent nervure. Abdomen: shining, punctured, and prismatic.

Hab. Celebes.

8. Scolia Alecto. *S.* nigra, capite supra basin antennarum rubro; alis nigris violaceo micantibus.

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Female. Length 14 lines. Black and shining; head red above the insertion of the antennæ, very smooth and glossy, with a few punctures at the sides of and in front of the ocelli; antennæ black; the mandibles with a fringe of ferruginous hairs on their inferior margin. Thorax: smooth on the disk, which has a few scattered punctures at the sides; the scutellum punctured and shining; the thorax in front and the metathorax with black pubescence, the latter widely emarginate at the verge of the truncation, the lateral angles produced; wings black with a bright violet iridescence. Abdomen punctured, with the middle of the second, third, and fourth segments smooth and shining in the middle; the first segment with a smooth shining carina at its base slightly produced forwards, the abdomen with a slight metallic lustre. The wings with one marginal and three submarginal cells, and one recurrent nervure.

Male. Smaller than the female, and differs in having the clypeus red and the red colour running down behind the eyes, the antennæ longer, and the abdomen with a bright metallic iridescence.

Hab. Celebes.

9. Scolia minuta. *S.* nigra, abdomine iridescente, segmentorum marginibus apicalibus flavo fasciatis, alis subhyalinis iridescentibus.

Male. Length 4 lines. Head and thorax black and shining, with scattered pale pubescence; the mandibles and clypeus yellow, the latter with an anchor-shaped black spot. Thorax: the posterior margin of the prothorax and the anterior and intermediate tibiæ and tarsi yellow; a minute yellow spot on the postscutellum yellow; the wings subhyaline, the nervures fusco-ferruginous. Abdomen: the apical margins of the segments with a narrow yellow border, the second and third uniting with a lateral spot; the sixth segment immaculate; the apex pale testaceous.

Hab. Celebes.

Fam. POMPILIDÆ, *Leach.*

1. Pompilus analis, *Fabr. Syst. Piez.* p. 209. 42.

Hab. India, Java, Ceylon, Celebes.

2. Pompilus saltitans. *P.* niger, pedibus subferrugineis, prothoracis margine postica flava; alis flavo-hyalinis, apice fuscis, abdomine pilis cinereis fasciato.

Female. Length 6 lines. Black and thinly covered with ashy pile. The scape, labrum, mandibles and palpi ferruginous; the clypeus widely emarginate anteriorly. The posterior margin of the prothorax angular and with a yellow border; the scutellum prominent, covered on each side with a dense silvery-white pile, the postscutellum with two spots of the same; the wings flavo-hyaline, their apex with a broad dark-fuscous border, the nervures ferruginous, the tegulæ yellow; the posterior wings palest; legs pale ferruginous, the coxæ black with

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their tips pale; the apical joints of the tarsi blackish, the spines of the legs black. Abdomen: the first, second, and third segments with a fascia of silvery-white pile at their basal margins; the apex of the abdomen ferruginous.

Hab. Celebes.

3. POMPILUS CONTORTUS. *P.* niger, cinereo-pilosus, prothorace flavo postice marginato; alis subhyalinis, marginibus apicalibus fuscis, pedibus subferrugineis.

Female. Length 5½ lines. Black; the head, thorax, and four basal segments of the abdomen covered with ashy pile; the first and second segments with their apical margins naked. The scape yellow in front; the flagellum beneath, the labrum, mandibles and palpi ferruginous; the joints of the antennæ arcuate, particularly the apical ones; the apex of each joint is oblique, giving the antennæ a twisted appearance. Thorax: the posterior margin of the prothorax angular and with a broad yellow border; the scutellum compressed and prominent; wings subhyaline with a broad fuscous border at their apex, the tegulæ yellow; legs pale ferruginous, with their coxæ and trochanters black; the apical joints of the tarsi fuscous. Abdomen with a yellow macula at the tip.

Hab. Celebes.

4. POMPILUS PILIFRONS. *P.* niger, facie argenteis pilis dense tecta; thorace abdomineque flavo maculatis, alis subhyalinis, apice fuscis.

Female. Length 4½ lines. Black; the face densely covered with silvery-white pile; a narrow line at the inner orbits of the eyes, the palpi and mandibles yellow; the latter ferruginous at their apex. The posterior margin of the prothorax rounded and yellow; a minute yellow spot on the mesothorax touching the scutellum, the thorax and abdomen covered with a changeable silky pile; the wings subhyaline, their nervures fuscous, a broad dark fuscous border at the apex of the superior pair. A transverse spot on each side of the basal margin of the second and third segments, and an emarginate fascia on that of the fifth, yellow.

5. POMPILUS DECEPTOR. *P.* rufescenti-flavus; vertice nigro, alis anticis apice fuscis.

Male. Length 6 lines. Pale reddish-yellow; the antennæ slightly dusky above; a black transverse stripe on the vertex between the eyes, and another issuing from it in the middle and passing beyond the ocelli. Thorax: a black stripe on each side of the mesothorax over the tegulæ; the wings subhyaline, the nervures ferruginous, the superior pair fuscous at their apex. Abdomen immaculate.

Subgenus PRIOCNEMIS.

1. PRIOCNEMIS RUFIFRONS. *P.* niger; facie, antennis, tibiis tarsisque

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ferrugineis, alis fulvo-hyalinis; abdominis segmento apicali flavo unimaculato.

Female. Length 9½ lines. Black; the face above the clypeus, as high as the anterior ocellus, reddish-yellow; the extreme edge of the clypeus, the labrum and base of the mandibles ferruginous; the antennæ reddish-yellow. Thorax: fulvo-hyaline, with a dark fuscous border at the apex; the knees, tibiæ and tarsi reddish-yellow; the two latter spinose. Abdomen: gradually tapering to an acute point at the apex, the sixth segment with an elongate red spot.

Hab. Celebes.

Subgenus Agenia.

1. Agenia blanda, *Guér. Voy. Coq. Zool.* ii. pt. 2. p. 260.

2. Agenia bimaculata. *A.* nigra, cinereo-pilosa, clypeo plagis duabus flavis; antennarum articulis apicalibus, tibiis tarsisque anticis et intermediis femoribusque posticis ferrugineis; alis subhyalinis, nervuris nigris.

Female. Length 7 lines. Black, and covered with ashy pile; a large macula on each side of the clypeus, the mandibles and palpi yellow; the base and apex of the mandibles rufo-piceous; the flagellum pale ferruginous, more or less fuscous above towards the base. Thorax: the posterior margin of the prothorax arched; the anterior and intermediate tibiæ and tarsi and the femora at their apex beneath, also the posterior femora, pale ferruginous; the wings subhyaline, the nervures dark fuscous. Abdomen: the apical margins of the segments obscurely and narrowly rufo-piceous, the apex ferruginous.

Hab. Celebes.

Gen. Macromeris, *St. Farg.*

1. Macromeris splendida, *St. Farg. Hym.* iii. 463. 1. ♂.

Hab. India, China, Malacca, Borneo, Java, Celebes.

Gen. Mygnimia, *Smith.*

1. Mygnimia iridipennis, *Smith, Journ. Proc. Linn. Soc.* ii. p. 98.

Hab. Celebes, Borneo.

This insect, a female, is 5 lines larger than *M. iridipennis*; but I can point out no other distinction beyond a slight difference in the colour of the wings: the specimen from Borneo has a metallic bluish-green iridescence, the Celebes insect has a violet iridescence; notwithstanding which I am inclined to regard them as one species.

2. Mygnimia fumipennis. *M.* aurantiaco-rubra, alis obscure fuscis.

Female. Length 9 lines. Orange-red; the anterior margin of the clypeus entire; the labrum produced, its anterior margin widely emarginate; eyes large, black and ovate. Thorax: the posterior margin

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of the prothorax rounded; the mesothorax with a longitudinal fuscous stripe on each side, widest anteriorly; the metathorax truncate; above, transversely striate; the tibiæ and tarsi spinose; wings dark fuscous, with a pale semitransparent macula at the base of the second discoidal cell and a dark fuscous macula beyond; the insect entirely covered with a fine orange-red downy pile.

Hab. Celebes.

Fam. SPHEGIDÆ.

1. SPHEX PRÆDATOR. *S.* niger, rude punctatus, facie pube fulva vestita; alis fuscis cupreo iridescentibus.

Male. Length 10½ lines. Black; the head and thorax opake. Abdomen shining blue-black. The face with silvery pile on each side of the clypeus, and sprinkled with erect black hairs. Thorax: the posterior margin of the prothorax with a line of silvery pubescence; the metathorax with a short light-brown pubescence at the apex, and thinly clothed with black hairs; wings dark brown, with a brilliant violet iridescence. Abdomen blue-black, smooth and shining.

Hab. Celebes.

2. AMMOPHILA INSOLATA. *A.* nigra, scapo mandibulis, pedibus, abdominisque segmentis primo et secundo ferrugineis; alis subhyalinis.

Female. Length 8½ lines. Black; the scape, the base of the flagellum beneath, the anterior margin of the clypeus and the mandibles ferruginous; the latter black at their apex. Thorax: the prothorax smooth and shining; the meso- and metathorax above transversely striated, the scutellum longitudinally so; the legs ferruginous, with their coxæ black; a spot of silvery-white pubescence on each side of the metathorax at its base, and two at its apex close to the insertion of the petiole; the wings fulvo-hyaline with the nervures ferruginous. Abdomen: the petiole and the following segment red, the base of the third also slightly red; the three apical segments obscurely blue, with a thin glittering pile.

The *male* differs in having the legs black, their articulations only being ferruginous; the head entirely black with the face densely covered with silvery-white pile. The thorax is sculptured as in the other sex; the petiole more elongate and slender, the basal joint black, the second and the first segment ferruginous beneath; the rest of the abdomen blue.

Hab. Celebes.

Gen. PELOPÆUS, *Latr.*

1. Pelopæus Madraspatanus, *Fabr. Syst. Piez.* p. 203. 3.

Hab. Malabar, Madras, Nepaul, Bengal, Celebes.

2. Pelopæus Bengalensis, *Dahlb. Syst. Nat.* i. 941. 2.

Hab. India, Philippine Islands, China, Isle of France, Celebes.

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3. PELOPÆUS INTRUDENS. *P.* niger; clypeo bidentato, tibiis anticis et intermediis, femorumque apice, femoribusque posticis basi, trochanteribus, tibiarum dimidio basali, petioloque rufescenti-flavis; alis fulvo-hyalinis.

Female. Length 11 lines. Black; the face with silvery pubescence; the clypeus with two large blunt teeth at its apex, formed by a deep notch in its anterior margin; the scape reddish-yellow in front. The meso- and metathorax transversely striated; the wings fulvo-hyaline, the nervures ferruginous; the anterior and intermediate tibiæ and the femora at their apex, the posterior femora at their base, the trochanters, the tibiæ with their basal half and the middle of the basal joint of the posterior tarsi, reddish-yellow; the petiole of the abdomen of a paler yellow; the abdomen smooth and shining. The male only differs in being rather smaller.

Hab. Celebes.

Mr. Wallace says of this species, "A common house-wasp in Macassar; builds mud cells on rafters."

Note.—In describing the species of this genus collected by Mr. Wallace at Borneo, I incorrectly gave that locality for *P. javanus*. The insect mistaken for that species may be shortly characterized as *P. benignus*, length 12 lines. Opake-black, with the petiole shining; the metathorax transversely striated; the wings pale fulvo-hyaline, the nervures ferruginous; the scape in front, the anterior and intermediate tibiæ, the apex of the femora, and the basal joint of the tarsi reddish-yellow; the posterior legs, with the trochanters and basal half of the femora, yellow.

4. PELOPÆUS FLAVO-FASCIATUS. *P.* niger; capite thoraceque flavo variegato; pedibus abdominisque basi ferrugineis; alis hyalinis, apice fuscis, abdominisque segmento tertio fascia lata flava ornato.

Female. Length 9 lines. Black; the clypeus yellow; the mandibles and scape ferruginous, the former black at their base, the latter yellow in front; the sides of the face with a bright golden pile. Thorax: the posterior margin of the prothorax, the tegulæ, scutellum, and a quadrate spot on each side of the metathorax at its base yellow; the legs ferruginous, with the coxæ, trachanters, and claw-joint of the tarsi black; wings fulvo-hyaline, the nervures ferruginous, a fuscous spot at the apex of the anterior pair; the meso- and metathorax transversely striated, the latter with a yellow spot at the insertion of the petiole. Abdomen: the petiole slightly curved upwards, the first segment ferruginous; a broad yellow fascia at the apex of the third segment, the apex of the fourth with a narrow obscure fascia; the abdomen covered with a fine silky pile.

Hab. Celebes.

Fam. BEMBICIDÆ, *Westw.*

1. Bembex trepanda, *Dahlb. Hym. Europ.* i. p. 181.

Hab. India, Celebes.

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Fam. LARRIDÆ.

Genus LARRA, *Fabr.*

1. Larra prismatica, *Smith, Journ. Proc. Linn. Soc.* ii. p. 103.
Hab. Malacca, Celebes.

Genus LARRADA, *Smith.*

1. Larrada aurulenta, *Smith, Cat. Hym. Ins.* pt. iv. 276. 6.
Sphex aurulenta, *Fabr. Mant.* i. 274. 10.
Hab. India, Java, Sumatra, Celebes, Philippine Islands, China, Cape of Good Hope, Gambia.

2. Larrada exilipes, *Smith, Cat. Hym. Ins.* pt. iv. p. 278.

3. LARRADA ÆDILIS. *L.* nigra; facie argenteo-pilosa, alis subhyalinis, articulis apicalibus tarsorum rufo-testaceis, abdomine lævi et nitido.
Female. Length 5½ lines. Black; head and thorax subopake, the abdomen shining; the face densely covered with silvery pile, the cheeks, sides of the thorax and abdomen thinly so; the tips of the mandibles and apical joints of the tarsi ferruginous, the latter obscurely so. The metathorax transversely and rather finely rugose, the truncation more strongly striated; the scutellum shining; the wings subhyaline, the nervures ferruginous; the tibiæ with scattered spines, the tarsi spinose.

4. LARRADA AURIFRONS. *L.* nigra; facie mesothoracis metathoracisque lateribus aurato pubescentibus, abdominis marginibus segmentorum trium basalium argentato piloso fasciatis; alis fuscis.
Male. Length 8 lines. Black; the face and outer orbits of the eyes clothed with golden pile; the lateral margins of the mesothorax and the metathorax thinly clothed with golden pile; wings dark fuscous with a violet iridescence; the three basal segments of the abdomen with fasciæ of silvery pile.
Hab. Celebes.

5. LARRADA PERSONATA. *L.* capite thoraceque nigris, abdomine ferrugineo.
Female. Length 8½ lines. Head, thorax, and legs black; the two former closely punctured and thinly covered with short cinereous pubescence; the metathorax with the punctures running into transverse striæ in the middle; the sides of the thorax and the legs with a fine silky silvery-white pile; the tibiæ and tarsi strongly spinose; wings fusco-hyaline; abdomen entirely red, smooth and shining.
The *male* is smaller, and has the four apical segments of the abdomen black, the face, cheeks, and apical margins of the segments of the abdomen with silvery pile.
Hab. Celebes.

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This is probably merely a variety of *L. simillima*, wanting the black apex to the abdomen; it very much resembles the *L. anathema* of Europe.

6. LARRADA RUFIPES. *L.* nigra, mandibulis pedibusque rufis; alis hyalinis, venis pallide testaceis; abdomine sericeo-piloso.

Female. Length 7 lines. Black; the head smooth and shining; the clypeus, the cheeks, and face anteriorly, covered with silvery pile; the scape in front, the mandibles, and palpi ferruginous. Thorax: the sides and beneath with a thin silvery-white pile; the legs ferruginous with the coxæ black, the posterior pair red beneath; the thorax closely punctured, the metathorax transversely striated; wings fulvo-hyaline, the nervures pale-testaceous. Abdomen shining, very closely and delicately punctured; thinly covered with a fine white silky pile, which is very bright on the margins of the segments, which are slightly rufo-piceous.

The *male* closely resembles the female, and is similarly sculptured and coloured.

Hab. Celebes.

7. LARRADA FESTINANS. *L.* nigra; facie abdominisque marginibus segmentorum argentato-pilosis.

Female. Length 3 lines. Black; the face and cheeks thinly covered with silvery pile. Thorax: the disk very closely punctured, the metathorax rugose; the sides and the legs with a fine glittering sericeous pile, the wings subhyaline, their apical margins fuscous, the nervures fuscous. Abdomen smooth and shining, covered with a thin silky pile, the apical margins with bright silvery fasciæ, only observable in certain lights.

The *male* closely resembles the female, but has the face more silvery.

Hab. Celebes.

Genus MORPHOTA, *Smith.*

1. MORPHOTA FORMOSA. *M.* capite thoraceque nigris; abdomine rufo, apice nigro, pilis argentatis ornato.

Female. Length 5 lines. Black, with the two basal segments of the abdomen red; covered with a brilliant changeable silvery pile, most dense on the face, cheeks, sides of the metathorax, and on the apical margins of the abdominal segments. The mandibles ferruginous, with their apex piceous. The vertex smooth, and having *three distinct ocelli*; the head more produced behind the eyes than in *Larrada*. Thorax: the prothorax subtuberculate at the sides; wings subhyaline and iridescent, the nervures fuscous, the tegulæ pale testaceous behind. The apical margin of the first segment of the abdomen rufo-fuscous.

Hab. Celebes.

The insects belonging to the genus *Morphota* differ from those of *Larrada* in having three distinct ocelli, the vertex without any depres-

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sions, and the head much less compressed than in *Larrada*; the recurrent nervures are received nearer to the base and apex of the second submarginal cell; the species have, in fact, a distinct habit, and do not assimilate with the species of *Larrada*.

Genus TACHYTES, *Panz.*

1. TACHYTES MOROSUS. *T.* niger, scutello abdomineque nitidis, facie argenteo-pilosa; marginibus lateralibus abdominis segmentorum argentatis.

Female. Length 4½ lines. Black; the face covered with silvery pile; the thorax finely and very closely punctured; the metathorax opake and finely rugose, thinly covered with cinereous pubescence; the anterior tarsi ciliated on the exterior, and the intermediate and posterior tibiæ with a few dispersed spines; wings fusco-hyaline and iridescent, the nervures fusco-ferruginous, the costal nervure black. Abdomen smooth and shining; the apical margins of the intermediate segments slightly depressed, with the sides sericeous.

Fam. CRABRONIDÆ.

Genus OXYBELUS, *Latr.*

1. Oxybelus agilis, *Smith, Cat. Hym. Ins.* pt. iv. 387. 25.

Hab. India, Celebes.

Genus CRABRO, *Latr.*

1. CRABRO (RHOPALUM) AGILIS. *C.* obscuro-nigra, clypeo argentato, capite, thorace abdomineque flavo variis.

Female. Length 4 lines. Black, opake; head larger than the thorax, quadrate; the ocelli in a curve on the vertex; the clypeus and lower portion of the cheeks with silvery pile; the scape, two basal joints of the flagellum, the palpi, and the mandibles, yellow; the latter rufo-piceous at their apex. The margin of the prothorax, the tubercles, the scutellum, the tibiæ and tarsi, the anterior femora and the intermediate pair at their apex yellow; the anterior femora black above; the wings subhyaline and iridescent, the nervures testaceous. Abdomen: with an elongate clavate petiole; the first segment with an oblique yellow macula on each side, the third with a large lateral macula at its base, and the following segments entirely yellow.

Hab. Celebes.

This species closely resembles the *C. Westermanni* of Dahlbome, from the Cape of Good Hope.

Genus CERCERIS, *Latr.*

1. Cerceris instabilis, *Smith, Cat. Hym. Ins.* pt. iv. 452. 74.

Hab. India, China, Celebes.

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2. Cerceris unifasciata, *Smith, Cat. Hym. Ins.* pt. iv. 456. 84.
Hab. North China, Celebes.

3. Cerceris fuliginosa, *Smith, Cat. Hym. Ins.* pt. iv. 454. 79.
Hab. Celebes.

4. CERCERIS VARIPES. *C.* nigra, facie flavo varia; alis fuscis basi hyalinis; pedibus variegatis; abdomine flavo maculato.

Male. Length 6 lines. Black; a line down the inner orbits of the eyes, continued along the lower margins of the face, and uniting with the clypeus, which as well as a line above it between the antennæ are yellow; a spot on the scape in front, and the mandibles, yellow; the latter rufo-piceous at their apex. Thorax: a spot on each side of the prothorax, a minute one on the tegulæ; the postscutellum, the intermediate and posterior coxæ and trochanters, the anterior tibiæ behind, the femora beneath, and the intermediate and posterior tibiæ yellow; the femora reddish above and at their articulations; the posterior femora and tibiæ black, with the tarsi rufo-testaceous; the anterior wings and the apex of the posterior pair brown, the base of the anterior pair hyaline. Abdomen: the second and three following segments with a short yellow stripe on each side.
Hab. Celebes.

Tribe VESPIDÆ.

Fam. EUMENIDÆ, *Westw.*

Genus ZETHUS, *Fabr.*

1. Zethus cyanopterus, *Sauss. Mon. Guêpes Sol.* i. 23. 2.

Genus MONTEZUMIA, *Sauss.*

1. Montezumia Indica, *Sauss. Mon. Guêpes Sol.* i. *supp.* 167. 59. t. 9. f. 4.
Hab. India, Celebes.

Genus RHYNCHIUM, *Spin.*

1. Rhynchium hæmorrhoidale, *Sauss. Mon. Guêpes Sol.* i. 109. 12.
Vespa hæmorrhoidalis, *Fabr. Syst. Piez.* p. 259. 28.
Hab. India, Java, Cape of Good Hope, Celebes.

2. Rhynchium argentatum, *Sauss. Mon. Guêpes Sol.* i. 115. 22.
Vespa argentata, *Fabr. Syst. Piez.* p. 260. 39.
Hab. India, Celebes.

3. Rhynchium atrum, *Sauss. Mon. Guêpes Sol.* i. 109. 11.
Hab. India, Celebes.

4. Rhynchium parentissimum, *Sauss. Mon. Guêpes Sol.* p 111. 14.—Var. *R. hæmorrhoidale?*
Hab. India, Java, Celebes.

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Genus EUMENES.

1. Eumenes circinalis, *Fabr. Syst. Piez.* p. 286. 4.
Hab. India, Sumatra, Celebes.

2. Eumenes fulvipennis, *Smith, Cat. Hym. Ins.* pt. v. 24. 26.
Hab. Celebes.

3. EUMENES VINDEX. *E.* niger, flavo variegatus, alis subhyalinis iridescentibus.

Male. Length 6 lines. Black; strongly punctured and shining; a minute spot behind the eyes, another in their emargination, the clypeus, with two minute spots above it, a spot at the base of the mandibles, and the scape in front yellow. Thorax: a subinterrupted line on its anterior margin, the tubercles, a spot on the tegulæ behind, and the legs yellow; the coxæ, femora at their base, and the posterior tibiæ outside dusky; wings light brown and iridescent, the anterior margin of the superior pair darkest. Abdomen delicately punctured; the apical margin of the first segment with a narrow yellow border slightly interrupted on each side; the apical segments with a thin cinereous pile.

Hab. Celebes.

4. EUMENES ARCHITECTUS. *E.* niger, clypeo, prothoracis margine postscutello abdominisque segmenti primi margine flavis.

Female. Length 6 lines. Black and closely punctured; a line behind the eyes near their vertex, a spot between the antennæ and the clypeus, yellow; the latter black at the apex, which is notched; the labrum and mandibles reddish-yellow, the latter black at their base. Thorax: the anterior margin yellow; the tubercles, tegulæ, postscutellum, an interrupted line on each side of the metathorax, the tibiæ, tarsi, and femora at their apex, yellow; the coxæ spotted with yellow and the posterior tibiæ dusky; the wings fusco-hyaline; a black line across the tegulæ. Abdomen: an ovate spot on each side of the petiole, its apical margin, a transverse ovate spot on each side of the first segment, and its posterior margin yellow; the following segments covered with a grey silky pile.

Male. Differs from the female in having the clypeus entirely yellow, the metathorax and abdomen entirely black; only the apical margin of the petiole is yellow, it is also longer.

Hab. Celebes.

5. EUMENES FLORALIS. *E.* niger; clypeo flavo; thorace pedibusque ferrugineo-flavo variegatis.

Male. Length 6½ lines. Black; strongly punctured and shining; the clypeus and a spot above yellow; a narrow abbreviated line behind the eyes, a minute spot in their emargination, and the tips of the mandibles orange-red; the flagellum fulvous beneath. Thorax: the anterior and posterior margin of the prothorax, the tubercles, and a

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spot on the tegulæ behind, a line on the postscutellum and the legs, orange-red, the coxæ black, and the tarsi dusky; the wings slightly brownish with a violet iridescence. Abdomen immaculate, with a minute spot on the posterior border of the petiole; the third and following segments with a fine cinereous pile.

Hab. Celebes.

Genus ODYNERUS, *Latr.*

1. Odynerus ovalis, *Sauss. Mon. Guêpes Sol.* 215. 122. t. 19. f. 4.

Hab. India, China, Celebes.

2. ODYNERUS (ANCISTROCERUS) CLAVICORNIS. *O.* niger, flavo varius; capite thoraceque fortiter, abdomine delicatule punctatis, antennis clavatis.

Male. Length 4½ lines. Black; head and thorax strongly punctured and shining; a spot on the mandibles, the labrum, the clypeus, a spot above, the scape in front, a line in the emargination of the eyes and a spot behind them, yellow; the flagellum broadly clavate, the joints transverse, the apex of the club and the terminal hook reddish-yellow, the thickened part of the club concave beneath, the hook bent into the cavity. Thorax: two spots on the anterior margin, a spot on the tegulæ in front, and the legs, reddish-yellow, the coxæ dusky; the metathorax coarsely rugose and deeply concave-truncate. Abdomen: the first segment with a transverse carina at its base, in front of which is an irregularly cut deep transverse channel forming a second carina in front of the groove; the segments finely punctured, the first and second segments with a yellow posterior border, the fourth and following segments rufo-piceous.

Hab. Celebes.

3. ODYNERUS (LEIONOTUS) INSULARIS. *O.* niger, flavo et aurantio variegatus; abdominis basi ferruginea.

Male. Length 6 lines. Black; the head and thorax strongly punctured; the mandibles, clypeus, a line above extending to the anterior ocellus, the emargination of the eyes, a spot at their vertex and a line at their outer orbits, yellow; the antennæ reddish-yellow, with the scape pale yellow in front and a narrow fuscous line above; the yellow marking more or less stained orange. Thorax: the prothorax orange, its anterior border, the tubercles, tegulæ, two spots on the scutellum and postscutellum, the lateral margins of the metathorax and the legs, yellow, the latter with reddish stains; wings subhyaline, the superior pair with a fuscous cloud at their apex. The base of the abdomen and a large macula on each side of the second segment ferruginous; the apical margin of the segments with a yellow border, the first and second with a minute notch in the middle; the first and second segments entirely ferruginous beneath.

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4. ODYNERUS FULVIPENNIS. *O.* niger, flavo varius, pedibus ferrugineis, alis fulvo-hyalinis.

Male. Black; head and thorax closely and strongly punctured; the clypeus and two spots above, a line along the lower margin of the sinus of the eyes, a narrow line behind them, the scape in front, and the mandibles yellow; the tips of the latter rufo-piceous; the antennæ and legs ferruginous; an interrupted yellow line on the anterior margin of the thorax; the wings fulvo-hyaline; the veins which enclose the marginal and second and third submarginal cells fuscous, the rest pale testaceous; a fuscous cloud in the marginal cell. Abdomen: the apical margin of the second segment with a yellow fascia, the following segments with red fasciæ.

Hab. Celebes.

Genus ICARIA, *Sauss.*

1. Icaria ferruginea, *Sauss. Mon. Guêpes Soc.* p. 37. 15.

Hab. India, Celebes.

2. ICARIA PILOSA. *I.* nigra, rude punctata et densissime pubescens, clypeo flavo, thorace, pedibus abdomineque ferrugineo variegatis; alis subhyalinis, anticis apice fusco maculatis.

Male. Length 7½ lines. Black; closely and strongly punctured; the clypeus, a line on the mandibles, and the scape in front, yellow; tips of the mandibles, the scape above, and the base of the flagellum ferruginous. Thorax: the prothorax, scutellum and postscutellum, ferruginous; the tegulæ and legs pale ferruginous, the coxæ black; wings fusco-hyaline, with a dark cloud in the marginal cell extending to the apex of the wing; a fainter cloud traverses the margin of the wing to its base. Abdomen: the first, second and third segments with a reddish-yellow fascia, that on the second segment continued beneath; a longitudinal broad stripe of the same colour on each side of the second segment; its apical margin serrated.

Hab. Celebes.

Genus POLISTES, *Latr.*

1. Polistes sagittarius, *Sauss. Mon. Guêpes Soc.* p. 56. 12.

Various specimens from Greece and Celebes have the thorax more or less ferruginous.

Hab. India, Celebes, China, Greece.

2. Polistes Picteti, *Sauss. Mon. Guêpes Soc.* 69. 28. t. 6. f. 8.

Hab. Ceram, Australia, Celebes.

3. Polistes fastidiosus, *Sauss. Mon. Guêpes Soc.* p. 60. 18.

Hab. Africa (Gambia), Celebes.

4. Polistes stigma, *Fabr. Syst. Piez.* p. 261. 41.

Hab. India, Ceram, Celebes.

5. Polistes Philippinensis, *Sauss. Mon. Guêpes Soc.* 58. 14 (var.).

Hab. Philippine Islands.

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Genus VESPA, *Linn.*

1. Vespa affinis, *Fabr. Syst. Piez.* p. 254. 6 (var. *V. cincta*?).
Hab. India, China, Singapore, Celebes.

2. VESPA FERVIDA. *V.* nigra, delicatule punctata; clypei margine antica, macula pone oculos, margineque postica segmenti primi abdominis flavis; alis fulvo-hyalinis.

Female. Length 13 lines. Black; closely and finely punctured; the clypeus convex and strongly punctured, emarginate anteriorly, the emargination with a yellow border; the eyes extending to the base of the mandibles, which have three stout teeth at their apex and a narrow yellow line at their inner margin. Thorax: the postscutellum yellow, and a minute yellow spot on the outer margin of the tegulæ; the wings rufo-hyaline, darkest along the anterior margin of the superior pair; the nervures ferruginous, gradually becoming darker at the base of the wings, the costal nervure black.

Worker. Length 9 lines. Very closely resembles the female, but in addition to the yellow markings of that sex has the anterior margin of the clypeus yellow, a narrow transverse line between the antennæ, another along the lower margin of the notch of the eyes, an abbreviated stripe behind them at the base of the mandibles, a spot beneath the postscutellum and a narrow yellow line along the posterior margin of the basal segment of the abdomen.

Hab. Celebes.

Fam. TENTHREDINIDÆ.

Genus TENTHREDO, *Linn.*

1. TENTHREDO (ALLANTUS) PURPURATA. *T.* capite thoraceque cæruleo-viridibus, abdomine purpureo, alis fuscis iridescentibus.

Size, length 4 lines. Head and thorax blue-green, abdomen purple; wings dark fuscous with a violet iridescence; an oblique white line on each side beneath the scutellum; legs and antennæ black.

Hab. Celebes.

Fam. ICHNEUMONIDÆ.

Genus MEGISCHUS, *Brullé.*

1. Megischus indicus, *Westw. Trans. Ent. Soc.* new ser. i. 1851.
Hab. Philippine Islands, Celebes.

Genus MESOSTENUS, *Brullé.*

1. MESOSTENUS ALBO-SPINOSUS. *M.* niger, albo varius, abdominis segmentis albo marginatis, metathorace spinis duabus albis armato.

Female. Length 5½ lines. Black; a half-circular spot on the clypeus, a heart-shaped one above it, a spot at the base of the mandibles, the orbits of the eyes, interrupted at their vertex, yellowish white, the palpi of the same colour, and a broad incomplete annulus on the

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antennæ beyond their middle. Thorax: the mesothorax with two deeply impressed oblique lines inclined inwards and terminating at an ovate spot in the middle of the disk, the scutellum and an oblique line on each side a little before it, a horseshoe-shaped spot in the middle of the metathorax, and a little below it on each side a conical tooth, yellowish white; four spots beneath the wings, one on each side of the metathorax, and the coxæ beneath, white; the legs ferruginous, with the intermediate pair dusky behind, the posterior pair entirely so, the femora being black; the wings hyaline, nervures fuscous. Abdomen: punctured and with a white fascia on the margins of the three basal segments; the two apical segments with very narrow fasciæ.

Hab. Celebes.

This species is closely allied to the *M. literatus* of Brullé; but it differs too much, I think, to be identical with it.

2. PIMPLA TRIMACULATA. *P.* flava, oculis, macula circa ocellos, vittulis tribus mesothoracis setisque caudalibus nigris.

Female. Length 6 lines. Yellow; the antennæ fuscous above, also a fuscous cloud at the apex of the anterior wings, the wings hyaline with the nervures black; a spot on the scape within, and three longitudinal stripes on the mesothorax, black; the latter slightly punctured anteriorly; the metathorax smooth and shining, with three oblique carinæ on each side, and a small subovate enclosed space in the middle of the disk. Abdomen punctured, all the segments margined at their apex, and each with a deeply impressed line at their extreme lateral margins; the sixth segment with two minute black spots at its basal margin, the two apical segments smooth and shining; the ovipositor black.

Hab. Celebes.

This species is closely allied to the *P. trilineata* of Brullé.

Fam. BRACONIDÆ.

1. BRACON INSINUATOR. *B.* capite, thorace pedibusque ferrugineis; antennis, tibiis tarsisque posticis et abdomine nigris; alis nigro-fuscis, macula hyalina sub stigmate.

Female. Length 7½ lines. Head and thorax smooth, shining, and ferruginous, the legs ferruginous, with the posterior tibiæ and tarsi black; the antennæ black, with the scape and following joint ferruginous; wings dark brown, with their extreme base pale testaceous; a hyaline stripe runs from the stigma across the first submarginal cell and passes a little below it. Abdomen black, smooth, and shining, with the lateral margins of the basal segment pale yellow-testaceous; this segment has on each side a longitudinal carina, and between them is a highly polished bell-shaped form; the second segment with deep oblique depressions at the sides, and deeply

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longitudinally rugose-striate, leaving the apical margin smooth and shining; the second segment is similarly sculptured, and the third has a transverse groove at its base.

Hab. Celebes.

2. BRACON INTRUDENS. *B.* rufescenti-flavus, antennis setisque caudalibus nigris; alis nigro-fuscis, basi fasciaque angusta transversa flavis.

Female. Length 9 lines. Pale reddish-yellow; the eyes, flagellum, and ovipositor black; the scape and the following segment yellow; the head and thorax smooth and shining, both pubescent at the sides and beneath, the legs covered with a similar pale pubescence; the face with an upright horn between the antennæ, and a raised flattened plate in front of it. Abdomen: the basal segment with the lateral margins raised, and having on each side an elongate broad depression extending its entire length; the three following with an oblique depression on each side at the base of the segment; the third, fourth, and fifth segments distinctly margined at their apex; the ovipositor the length of the insect.

Hab. Celebes.

Genus AGATHIS, *Latr.*

1. AGATHIS SCULPTURALIS. *A.* nigra, prothorace, pedibus anticis mediisque ferrugineis; abdomine lævigato nitido.

Male. Length 5½ lines. Black; the mouth, prothorax, anterior and intermediate legs, ferruginous; the face with two teeth or horns between or a little before the insertion of the antennæ, and another at the side of each, close to their insertion. Thorax: the mesothorax with two deeply impressed lines in front, running inwards, and uniting about the middle, and with two or three deep transverse channels before their junction; the lateral margins of the mesothorax deeply impressed; the metathorax ruggedly sculptured; the posterior coxæ and femora closely punctured; wings black with a hyaline spot in the first submarginal cell. Abdomen very smooth and shining, with a deeply impressed line on each side of the basal segment.

Hab. Celebes.

2. AGATHIS MODESTA. *A.* rufescenti-flava; antennis, vertice, tibiis posticis apice, tarsisque nigris; alis fusco maculatis.

Female. Length 4 lines. Reddish-yellow: the antennæ and vertex, black. The mesothorax with two deeply impressed longitudinal oblique lines, and two parallel ones between them; the metathorax reticulated; wings hyaline, with a dark fuscous stain crossing the anterior pair at the base of the first submarginal cell, these hyaline to the middle of the stigma, beyond which they are fuscous; a subhyaline spot at the apex of the marginal cell, and another beneath it at the inferior margin of the wing; the posterior tarsi dusky, and the tips of the tibiæ black.

Hab. Celebes.

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3. AGATHIS NITIDA. *A.* nigra, nitida; facie, pectore, pedibus anticis et intermediis, plaga infra alas, scutelloque pallide ferrugineis.

Length 4 lines. Black and shining; the face, mandibles, head beneath, legs, pectus, sides of the thorax beneath the wings, the scutellum and the basal half of the abdomen beneath, pale ferruginous; the mesothorax with two longitudinal oblique lines on the disk, which have two parallel ones between them; the metathorax coarsely rugose; the wings dark brown, with the base of the stigma pale, and a hyaline spot beneath it. Abdomen very smooth and shining, with the apical margins of the segments narrowly rufo-piceous; the posterior legs incrassate and dark rufo-piceous.

Fam. CHRYSIDIDÆ.

Genus HEDYCHRUM, *Latr.*

1. HEDYCHRUM FLAMMULATUM. *H.* viridi-purpureo lavatum; capite thoraceque fortiter, abdomine delicatule, punctatis; alis fuscis basi hyalinis.

Length 3 lines. Bright green; the vertex, two oblique stripes on the prothorax, meeting in the centre of its anterior margin, a broad longitudinal stripe on the disk of the mesothorax, and the sides of the scutellum and postscutellum deep purple. Abdomen: the middle of the basal segment, the second and third segments at their base, broadly purple; the apical margin of the third tinged with purple; wings subfuscous, with their base hyaline. The head and thorax coarsely and closely punctured, the abdomen finely so; the tarsi with the claws unidentate.

Hab. Celebes.

Genus CHRYSIS, *Linn.*

1. CHRYSIS PURPUREA. *C.* læte purpurea, capite, thorace abdominisque basi rugosis punctatis, segmentis abdominis secundo et tertio delicatule punctatis, apice quadridentato.

Length 3 lines. Bright purple; the head, thorax, and base of the abdomen strongly and coarsely punctured, the rest of the abdomen finely punctured; the disk of the thorax and apical margins of the segments of the abdomen reflecting bright tints of green; the wings subhyaline, the nervures dark fuscous; the apical margin of the third segment of the abdomen with four teeth, the two central ones approximating, separated by a deep notch, the lateral teeth more distant, separated from the others by a wide emargination.

Hab. Celebes.

2. CHRYSIS INSULARIS. *C.* nigro-purpurea, violaceo et viridi lavata; capite, thorace abdominisque basi rude punctatis.

Length 5 lines. Dark purple, with violet and green reflections; the face, legs, and thorax beneath, green; wings slightly fuscous, and

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iridescent; the head and thorax closely and coarsely punctured; the base of the abdomen roughly punctured, the two following segments much more finely so; the apical segment armed with six teeth, the outer ones subacute.

Hab. Celebes.

3. CHRYSIS SUMPTUOSA. *C.* fortiter punctata, metallico-viridis auro lavata; thoracis disco, abdominis segmentis secundo et tertio basi purpureis; segmento apicali margine integro.

Length 3¼ lines. Golden-green; the thorax at the sides and posteriorly with bright coppery effulgence; an oblong purple spot on the disk of the thorax; the metathorax and its lateral teeth vivid green, the vertex and prothorax splashed with gold. Abdomen: the basal segment bright green, with a bright coppery or golden effulgence at the sides; the second segment purple at the base, coppery at the apex, and with a suffusion of green between these tints; the third segment is similarly coloured, with the apical margin entire; the insect closely and strongly punctured throughout.

Hab. Celebes.

Description of a new Genus of Crustacea, of the Family Pinnotheridæ; in which the fifth pair of legs are reduced to an almost imperceptible rudiment. By THOMAS BELL, Esq., Pres. L. S.

[Read June 3rd, 1858.]

Fam. PINNOTHERIDÆ, *Edwards.*

Genus AMORPHOPUS, *Bell.*

CHAR. GEN.:—Corpus subcylindricum. Testa semicircularis, margine posteriore recto.—*Antennæ externæ minimæ*, articulo basali orbitam subtus partim claudente.—*Antennularum fossulæ* transversæ, continuæ, et ab orbitis haud separatæ.—*Pedipalpi externi* articulo quarto ovato, palpo tri-articulato, ad angulum antico-interiorem articuli quarti inserto.—*Oris apertura* antice arcuata.—*Orbitæ* apertæ, margine inferiore carente, superiore integro.—*Oculi* transversim positi.—*Pedes antici* robusti, inæquales; *pedum paria secundum, tertium et quartum* longa, subcompressa; *par quintum* exiguum, simplicissimum, rudimentarium, in incisura articuli basalis paris quarti insertum.—*Abdomen* MARIS segmentis tertio cum quarto, et quinto cum sexto coalitis; FŒMINÆ ?

Sp. unica. *Amorphopus cylindraceus*, mihi.

Description.—The body is nearly cylindrical, somewhat depressed, the carapace very much curved from the point to the back, quite

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