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BRITISH ENTOMOLOGY;

BEING

ILLUSTRATIONS AND DESCRIPTIONS

OF

THE GENERA OF INSECTS

FOUND IN

GREAT BRITAIN AND IRELAND:

CONTAINING

COLOURED FIGURES FROM NATURE

OF THE MOST RARE AND BEAUTIFUL SPECIES,

AND IN MANY INSTANCES

OF THE PLANTS UPON WHICH THEY ARE FOUND.

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in
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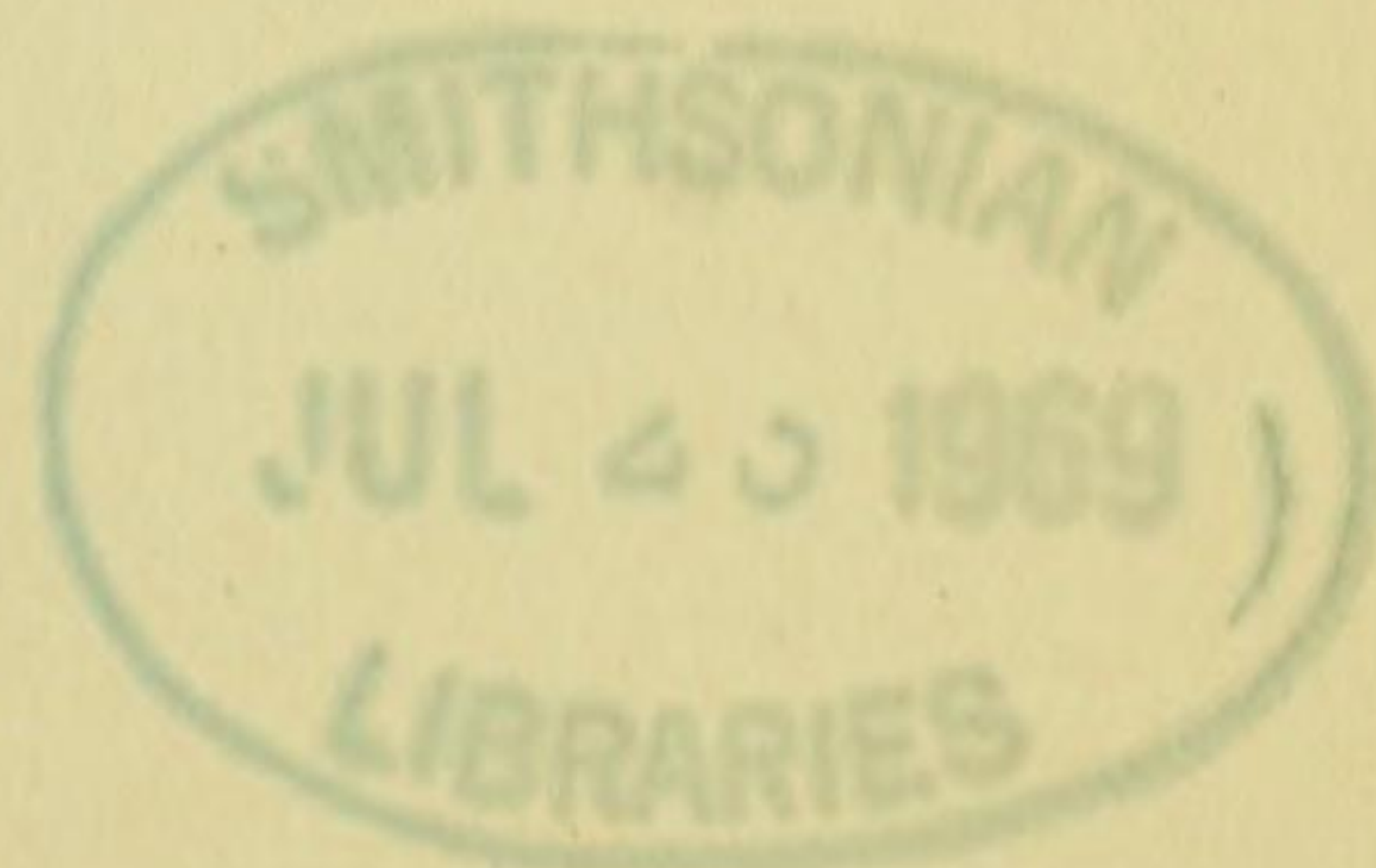
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8.

CHRYSIS FULGIDA.

ORDER Hymenoptera. FAM. Chrysididæ.

Type of the Genus, Chrysis ignita Linn.

CHRYSIS Linn., Fab., Lat., Panz., Jur., Curt., &c.—Vespa Geoff.

Antennæ inserted close to the base of the clypeus, subfusiform, geniculated, 13-jointed, basal joint long, robust and slightly hairy, the remainder velvety, 2nd small, 3rd longer than the following, the remainder decreasing in length to the apex, the terminal one being very small, compressed and subovate (1).

Labrum transverse, somewhat oval, ciliated with long hairs (2).

Mandibles elongate-trigonal, slightly hairy externally, bent and acute at the apex, with 1 or 2 notches on the inside (3).

Maxillæ furnished with a narrow internal lobe, the external one large, suborbicular and pilose, the internal portion thickened and forming a slight projecting point on the margin. *Palpi* rather long pilose and 5-jointed, basal joint a little shorter than the 2nd and 3rd, the latter being dilated, 4th and 5th joints long, the former clavate, the latter nearly linear (4).

Mentum oblong, the sides concave (5 a). *Palpi* pilose and formed of 3 short equal joints, the 1st and 2nd subobovate, 3rd scarcely so stout and oval (b). *Labium* subtrigonal, the sides recurved (c).

Male smaller than the female. Head transverse: face concave. Eyes ovate. Ocelli 3 in triangle. Thorax oblong, collar large, postscutellum broad and short, the sides acuminate. Body contractile into a ball. Abdomen attached by an exceedingly short petiole elongate-ovate, semicylindric, being convex above and flat or concave beneath, composed of 3 segments, the 2nd very large, the last with a deep transverse suture bearing a row of strong punctures, the margin generally dentated. Ovipositor long, composed of several coriaceous tubes, terminated by 2 strong pilose cylindrical appendages with an aculeus between them. Superior wings with one large perfect marginal cell, submarginal cells imperfect, two discoidal cells, the superior one large with a short branch next the limb; inferior wings with the nervures very obscure. Legs; posterior the longest. Thighs short. Tibiæ short and spurred, anterior with a long dilated spine at the apex. Tarsi 5-jointed, basal joint the longest, emarginate on the inside at the base, in the anterior pair. Claws and Pulvilli distinct (8).

FULGIDA Linn. Faun. Suec. p. 415. n. 1669.—Curtis's Guide, Gen. 659. 11.

In the Cabinets of the British Museum, Mr. Dale, &c.

NOTHING can exceed the splendour and brilliancy of the Chrysididæ, which have been compared by Latreille to precious stones, and very aptly called by Jurine the Humming-birds of entomologists. It must be confessed that Nature has been lavish in adorn-

ing them with such beautiful and effulgent colours, that our astonishment and admiration are equally awakened on contemplating them. Latreille supposes this splendour may dazzle their enemies and so facilitate their escape; and this superb armour with which they are covered, surpassing any that we have ever read of even in romance, appears to be impenetrable and quite equal to resist on every side the weapons of an assailant,—nevertheless they seem to be timid; for on touching them they roll themselves up into a ball, conscious, apparently, that their armour is their best defence. They seem to be supplied with this coat of mail to make amends for their weak sting, which being placed at the extremity of a long telescopic-formed oviduct is only able to pierce soft bodies; this flexible tube they can extend to a very great length: I have seen it reach the base of the anterior wings.

Latreille has very judiciously divided the Chrysididæ into seven genera, five of which are British; but Jurine having founded his groups upon the form of the cells of the wings, has not adopted them.

Our species of *Chrysis* may be thus divided.

* Apex of abdomen producing 4 spines.

1. *C. ignita* Linn. *Faun. Suec.* 414, 1665.—*Don. Brit. Ins.* v.1. pl. 7.—*Panz.* 5. 22. Length from 2 to 7 lines. Yellow or blue green, shining, clothed with soft upright gray hairs, thickly and coarsely punctured: antennæ velvety black, excepting the 2 basal joints which are green: head more or less purple or blue on the crown, collar with a spot in the centre and an elongated mark on each side, of the same colour: thorax variegated with purple also: abdomen effulgent, golden crimson, sometimes green on the sides and violaceous on the back, down the two first joints of which there is an elevated line; the punctation is generally very coarse at the base, fine on the sides and sometimes very minute, thick or vanishing towards the apex which is crenated, forming 4 teeth, much more acute in the males than females; nearly at the base of them is a semicircular row of from 14 to 18 deep punctures: wings stained brown, nervures piceous: legs green: tarsi velvety black: ovipositor frequently exerted, brownish ochre, the terminal plate of the abdomen beneath generally black.

This is one of the most variable insects in size, colour, and sculpture, and I have little doubt but a considerable number of the following species are nothing more than extreme varieties.

The head and thorax are bright green of various hues, variegated with deep blue or purple, sometimes entirely of a fine chalybeous colour; the body resembles the brightest gold, reflecting most lovely tints of crimson or violet, sometimes eneous or cupreous, and more or less encircled with a beautiful yellow green; the ridge on the back of the body sometimes extends nearly to the apex, the punctures are in some thick and coarse, in others innumerable and minute, and again almost vanishing: the teeth at the apex are also much less developed in some than in others.

This insect is distributed over the whole country, and is seen

when the sun shines running over the sides of walls, posts, and sandy banks, from May to the middle of August.

2. *C. affinis* Leach.—Sam.—Curtis's Guide.

About the size of *C. ignita*, and probably only a variety; the fore and hind part of the head, 3 spots on the collar, the mesothorax and scutellum are blue; back of the abdomen purplish; the apex with the teeth very short.

3. *C. nitens* Ste.—Curtis's Guide.

4. *C. micans* Ste.—Curtis's Guide.

5. *C. fulminans* Ste.—Curtis's Guide.

6. *C. confinis* Ste.—Curtis's Guide.

These are probably merely varieties of *C. ignita*, as well as the three next.

7. *C. effulgens* Leach.—Harris's Exposition, pl. 19. f. 2.?

Very similar to *C. ignita*. Mr. Dale has taken it in June and July at Glanville's Wootton, Dorset.

8. *C. pulchra* Ste.—Curtis's Guide.

Taken by Mr. Dale at Dawlish, Devon, May 22nd.

9. *C. ephippium* Ste.—Curtis's Guide.

Length 4 lines. Duller than *C. ignita*, thickly punctured and clothed with soft upright gray pubescence; bright green: antennæ velvety black, 2 basal joints green, crown of the head, a central and 2 lateral spots on the collar, the whole of the mesothorax and centre of the scutellum dark blue-purple: abdomen with the sides slightly coarctate, with a ridge down the back, rather dull golden crimson, the back somewhat blue, the row of punctures sometimes irregularly united, teeth rather acute; beneath green to the apex variegated with gold: wings slightly stained with brown, the nervures piceous: tarsi velvety black.

I do not think this is a good species, and it may be the other sex of the variety named *C. affinis*. Taken by Mr. Dale in June at Puddle Town and Glanville's Wootton; near Cambridge; at Ambleside, and in the Isle of Bute.

10. *C. aurulenta* Ste.—Curtis's Guide.

Length $3\frac{1}{2}$ lines. Thickly and rather coarsely punctured, clothed with soft long gray pubescence, especially the head; bright shining green, crown of the head and the whole of the mesothorax deep purple: abdomen with an elevated line down the back, golden reflecting crimson, 12 or 14 punctures surrounding the apex, the central teeth somewhat approximating: wings scarcely tinted, nervures piceous: antennæ and tarsi, excepting the two basal joints of the former, velvety black, underside bright green to the apex.

This insect I have taken near London.

11. *C. fulgida* Linn. F. S. 415. 1669.—Curt. Brit. Ent. pl. 8.—Panz. 79. 15.

Shining, deeply and thickly punctured, pubescent; bright green, variegated with purple and green: abdomen with an elevated line down the back, the 2nd and 3rd joints only aureous, reflecting bright crimson on the back, greenish on the sides, apex surrounded by about 16 punctures, and furnished with 4 rather acute teeth, beneath green and black: tarsi and antennæ, excepting the 2 basal joints of the latter, black: wings stained brown, nervures piceous.

The beautiful female represented in the plate was taken with other specimens in June at Birch Wood, in Kent, by Mr. Standish; it has also been found on gravelly banks in July at Bexley, in the same county, by Mr. Samouelle; it has likewise occurred in Epping Forest; Coombe Wood; Teignmouth, Devon; and Mr. F. Walker has met with it at Southgate.

12. *C. Stoudera* *Jur. pl.* 12. *f.* 42.—*Panz.* 107. 12.

Length $3\frac{3}{4}$ lines. Slightly shining, pubescent, thickly and strongly punctured, deep blue-purple, 2nd and 3rd joints of abdomen gold reflecting crimson and green, the former with a large orbicular-quadrangle purple spot, extending from the base beyond the middle; about 18 punctures surrounding the apex, which has 4 strong teeth: antennæ and tarsi black, excepting the two basal joints of the former: wings slightly stained brown, nervures piceous.

Rare: June, sandy banks near London.

13. *C. bidentata* *Linn.*—*Don.* 1. 19.—*Panz.* 77. 15.—*dimidiata* *Fab.*

Length nearly 4 lines. Thickly and strongly punctured, pubescent, shining: collar, metathorax and scutellum golden-crimson: abdomen with an elevated line down the back, the principal part of the posterior portion of the basal, and the whole of the 2nd articulation above, of the same colour, apex with a curved line of strong punctures, the apex emarginate, forming 4 obscure teeth: antennæ and tarsi black, except in the 2 basal joints of the former.

June, July, and August, at Cambridge; Bedford; Dover; Bideford, Devon; and Isle of Portland, J. C. Dale, Esq. I once saw it in some abundance going out and into the burrows of an *Odynerus* (pl. 137.), on a sunny bank in Darent Wood, probably in order to deposit its eggs in those of the *Odynerus*.

15. *C. inermis* *Ste.*—*Curtis's Guide.*

Whether this be a variety of the foregoing species I am unable to ascertain.

16. *C. succincta* *Linn. Syst. Nat. v.* 1. *pars* 2. *p.* 947. *n.* 3.—*Panz.* 77. 16.

Length 3 lines. Strongly and thickly punctured, pubescent, bright green, shining: crown of the head purple: collar variegated with purple: mesothorax golden-green and red: abdomen golden-green, the back crimson, apex triemarginate, forming 4 small teeth: wings slightly stained brown, nervures piceous: antennæ and tarsi velvety black, the former with the 3 basal joints green; a curved line of strong punctures round the apex.

This rare and beautiful species has been taken by Mr. Dale in gravel-pits at West Hurne, Hants, 12th of July 1823; and I think I have seen it on a sandy bank in August at Ramsdown, near Heron Court, the property of the Earl of Malmesbury. The specimen in my possession was communicated to me by Captain Blomer, who took it at Bigbury Bay, Devon, 8th of September 1823. It has also been observed near Bristol by Mr. Millard.

** Apex of abdomen tridentate.

17. *C. cyanea* *Linn. F. S.* 414. 1667.—*Don.* 7. 235.—*Panz.* 51. 10.

Length $2\frac{1}{2}$ to $3\frac{1}{2}$ lines. Thickly but not deeply punctured, pubescent,

glossy, greenish blue, crown of the head purple : thorax variegated with the same, 1st and 2nd joints of abdomen black or blue purple above, apex with a curved line of strong punctures, biemarginate, forming 3 scarcely visible teeth : wings nearly transparent, nervures piceous : antennæ and tarsi black, basal joint of former green.

From beginning of June to August, near London ; in Norfolk ; Kimpton near Andover ; New Forest, and Glanville's Wootton. I find this species on old posts and dead trees : and Donovan says it is common on fruit-trees.

* * * Apex of abdomen rounded, without teeth.

18. *C. rufa* Panz. 79. 16.—*Curt. Guide*.

Length $3\frac{1}{2}$ lines. Rather robust, dull, exceedingly thickly punctured, pubescent : head and thorax coarsely punctured, green, crown of the head and mesothorax dark blue or purple : abdomen so thickly and minutely punctured as to appear like frosted gold reflecting crimson, apex with a semicircular line of punctures : wings stained brown, except at the apex, nervures piceous : antennæ and tarsi velvety black, the former with the 2 basal joints green.

End of June, sandy banks and chalk-pits, Darent and Dover, Kent ; beginning of June on posts, &c., Chesterton near Cambridge, and Isle of Portland ; also to the end of July, Parley Heath. J. C. Dale, Esq.

19. *C. Austriaca* Fab. *Piez.* 173. 15.—*radians* Harr. *Expos. tab.* 19. f. 3.

Length $4\frac{3}{4}$ lines. Thickly and coarsely punctured, shining, clothed with fuscous pubescence : head and thorax green, variegated with blue : abdomen golden, reflecting crimson, nearly truncated at the apex, with a row of small punctures : wings tinged brown, nervures piceous : antennæ and tarsi velvety black, 3 basal joints of the former green.

It is remarkable that Fabricius in his essential character, says, "the anus is quadridentate;" and in his specific description, which immediately follows, he says "that the anus is unarmed."

From June 7th to July 24th, Bottisham, Cambridgeshire ; Glanville's Wootton and Beaminster, Dorset. J. C. Dale, Esq.

20. *C. cærulipes* Fab. *Syst. Piez.* 173. 13.—*Panz.* 107. 11.—*cærulescens* Fab. *Ent. Syst.*—*Coq. tab.* 14. f. 5.—*Leachii* Ste.

Length $4\frac{1}{4}$ lines. Deeply punctured, crimson : metathorax, breast and legs blue : antennæ black : superior wings stained yellowish brown.

A single specimen of this fine species is contained in the cabinets of the British Museum. I believe it was presented by Dr. Leach.

21. *C. variegata* Curtis.

About 2 lines long : slender, smooth, shining, yellowish green. Head dark green : antennæ black ; collar and thorax banded with golden red ; abdomen with the basal joint golden, red across the middle ; 2nd and 3rd joints entirely of that colour : wings slightly fuscous : legs green and black.

This little species reminds us at first sight of *C. succincta*, but it has the apex of the abdomen entire, which is the reason I have not adopted the name *nitidula*, under which it stands with a ? in the

British Museum ; as Fabricius states that the apex of his insect is quadridentate.

It was taken at Exeter, probably by Dr. Leach.

The Plant represented is *Thlaspi* (*Capsella Dec.*) *Bursa Pastoris* (Shepherd's Purse).