

ART. I.—*Monographia Chalciditum.* By FRANCIS WALKER.

(Continued from Vol. III. page 496.)

“ —— the green myriads in the peopled grass.”

PTEROMALUS.

SECTIO XLIX.—Mas et Fem.

GASTRACANTHUS ET HETROXYS, *Westwood.*

Mas.—Caput magnum, thorace latius: antennæ filiformes, hirti, corpore paullo breviores; articuli 5°. ad 10^{um}. longitudine decrescentes; clava fusiformis, acuminata, articulo 10°. multo longior: mandibulæ quadratae, subarcuatæ; una 4-dentata, dens externus mediocris incurvus acutus, 2^{us}. 3^{us}. et 4^{us}. breves obtusi; altera 3-dentata, dens externus major incurvus acutus, 2^{us}. mediocris subacutus, 3^{us}. brevis latus obtusus: maxillæ breves; laciniæ longæ, angustæ, subarcuatæ, acuminatæ, lobatæ; palpi 4-articulati, subclavati, articuli 1^{us}. 2^{us}. et 3^{us}. breves subæquales, 4^{us}. fusiformis longior: labium breve, obconicum; ligula brevis, antice lata et ciliata; palpi 3-articulati breves crassi, articulus 2^{us}. brevissimus: thorax ovatus: prothorax brevis: mesothoracis parapsides convexæ, prominentes; suturæ conspicuæ: metathorax mediocris: abdomen cochleatum, planum, thorace paullo longius; segmentum 1^{um}. longum, 2^{um}. et sequentia breviora subæqualia: pedes subæquales: alæ amplæ; nervus humeralis ramulum brevem rejiciens; radialis cubitali ramulum brevissimum emittente plus duplo longior.

Fem.—Antennæ clavatae, corporis dimidio longiores; articuli 5°. ad 10^{um}. longitudine decrescentes; clava ovata, articulo 10°. paullo latior et duplo longior: abdomen fusiforme, thorace paullo angustius et dimidio aut duplo longius, apicem versus attenuatum acuminatum pubescens, non angulatum; segmenta subæqualia: oviductus dum quietem agit occultus.

Sp. 164. Pter. pulcherrimus. Fem. *Viridi-æneus, abdomen cupreum subtus rufum, antennæ nigræ, pedes flavi, proalis fasciæ 2 fuscæ.*

Gastracanthus pulcherrimus, *Westwood, Loudon's Mag. Nat. Hist.* VI. 121.

Caput viridi-æneum, supra cupreum: oculi ocellique rufo-picei: antennæ nigræ; articulus 1^{us}. pallide fulvus; 2^{us}. nigro-æneus:

thorax obscure æneo-viridis, subtus cupreus: abdomen cupreum, subtus rufum: pedes pallide flavi; unguis et pulvilli fusti: alæ limpidae; proalæ cujusque disco fasciae 2 fuscae, abbreviatæ, enormes, medio connexæ; squamulæ et nervi fulva; stigma minutum. (Corp. long. lin. $2\frac{3}{4}$; alar. lin. $4\frac{1}{2}$.)

September; near London. North Wales.

Sp. 165. Pter. scenicus. Mas et Fem. *Viridis aut æneus, abdomen cupreum plerunque basi et subtus rufum, antennæ nigræ, pedes rufi aut fulvi, metafemora nonnunquam supra fusca, proalæ sœpissime fusco nebulosæ.*

Mas.—Caput viride: oculi ocellique rufo-picei: antennæ nigræ; articulus 1^{us}. fulvus, apice fuscus; 2^{us}. nigro-viridis: mandibulæ rufæ: maxillæ et labium viridia: palpi, laciniæ et ligula flava: thorax viridis; segmentorum suturæ æneo-virides: abdomen cupreum, basi et subtus rufum: pedes pallide rufi; coxæ virides; meso- et metatarsi flavi, apice fulvi: alæ subfuscæ; proalæ fusco nebulosæ; squamulæ et nervi obscure fulva; stigma parvum.

Fem.—Caput postice æneum: antennis articulus 1^{us}. fulvus; 2^{us}. viridi-fuscus: thorax viridi-æneus: mesothoracis scutellum æneo-cupreum: abdominis segmentum 1^{um}. viridi-varium: oviductus rufus: pedes læte fulvi; coxæ virides; meso- et metatarsi flavi; unguis et pulvilli fusti: alarum squamulæ et nervi fulva. (Corp. long. lin. $1\frac{1}{4}$ —2; alar. lin. $1\frac{5}{4}$ — $2\frac{1}{2}$.)

Var. β.—*Mas*, caput et thorax cyaneo-viridia.

Var. γ.—*Mas*, thorax æneo-viridis; mesothoracis scutellum æneum.

Var. δ.—*Mas*, abdomen omnino cupreum: antennis articulus 1^{us}. nigro-viridis, basi fulvus: proalæ non nebulosæ.

Var. ε.—*Mas*, *Var. δ.* similis: caput et thorax omnino viridia: abdomen ante medium et subtus obsolete fulvum: metafemora apice supra fusca.

Var. ζ.—*Mas*, metafemora supra viridi-fusca.

Var. η.—*Mas*, caput et thorax viridia: abdomen cupreum.

Var. θ.—*Mas*, *Var. η.* similis: abdomen basi et subtus fulvum: pedes pallide fulvi: alæ sublimpidæ.

Var. ι.—*Fem.* antennis articulus 1^{us}. fuscus, basi et subtus fulvus; 2^{us}. nigro-viridis.

Var. κ.—*Fem.* metathorax cyaneo-viridis.

Var. λ.—*Fem.* thorax viridis: mesothoracis scutellum æneum: abdominis rufum vix conspicuum.

Var. μ.—*Fem.* abdomen supra viride, apice cupreum.

June to August; near London. Hampshire, &c. Found in Ireland by Mr. Haliday.

Sp. 166. Pter. invenustus. Mas. *Nigro-viridis*, P. scenico minor obscurior, abdomen nigro-cupreum, antennæ nigræ, pedes fusci, alæ fuscæ.

Caput et thorax nigro-viridia: oculi ocellique rufo-picei: antennæ nigræ; articulus 1^{us}. viridi-fuscus, basi fulvus; 2^{us}. nigro-viridis: abdomen nigro-cupreum: pedes fusci; coxae virides; pro- et meso-pedum tibiae et tarsi fulva: proalæ fuscae; squamulæ et nervi fulva; stigma parvum; metalæ subfuscæ. (Corp. long. lin. 1; alar. lin. 1½.)

Var. β.—Metatarsi basi fulvi.

June; near London. Hampshire.

Sp. 167. Pter. macromerus. Mas. P. scenico *similis at gracilior*, alæ longiores angustiores.

Caput viridi-æneum: oculi ocellique rufo-picei: antennæ nigræ; articuli 1^{us}. et 2^{us}. nigro-virides, ille basi fuscus: thorax viridi-æneus: abdomen cupreum: pedes pallide fulvi; coxae virides: alæ sublimpidæ; proalæ fusco obsolete nebulosæ; squamulæ et nervi fulva; stigma minimum. (Corp. long. lin. 1¾; alar. lin. 2¼.)

Found near London.

Sp. 168. Pter. stenogaster. Fem. P. scenico *similis*, antennæ breviores, abdomen minus attenuatum. *Viridi-æneus*, abdomen cupreum subtus basi fulvum, antennæ nigro-fuscæ, pedes flavi aut fulvi, tibiæ nonnunquam fuscæ, proalæ subfulvæ.

Caput æneo-viride: oculi ocellique rufo-picei: antennæ nigro-fuscæ; articulus 1^{us}. fulvus, subtus flavus; 2^{us}. fusco-æneus; thorax viridi-æneus; latera virida: abdomen cupreum; segmentum 1^{um}. lète viride, subtus fulvum: pedes flavi; coxae virides; femora et protarsi fulva: proalæ subfulvæ; squamulæ et nervi fulva; stigma minutum; metalæ sublimpidæ. (Corp. long. lin. 1½—1¾; alar. lin. 1¾—2.)

Var. β.—Caput viride: antennis articulus 1^{us}. fulvus, apice fuscus: thorax æneo-viridis.

Var. γ.—Tibiæ et tarsi fulva.

Var. δ.—*Var. β.* similis: mesothoracis scutellum cupreum: abdominis segmentum 1^{um}. supra cupreum: tibiæ fulvæ.

Var. ε.—*Var. δ.* similis: caput et thorax cuprea.

Var. ζ.—Caput cyaneo-viride: antennis articulus 1^{us}. fulvus, apice fuscus, thorax viridis; discus æneus: abdomen basi supra cyaneum: tibiæ fuscæ: alarum squamulæ et nervi obscure fulva; stigma pallide fuscum.

July; near London.

Sp. 169. Pter. præpileus. Fem. P. scenico, *sæpiissime minor, antennæ graciliores plus clavatæ. Viridis, abdomen cupreum, antennæ fuscæ, pedes fulvi, alæ sublimpidæ.*

Caput et thorax viridia: oculi ocellique rufo-picei: antennæ obscure fuscæ; articulus 1^{us}. fulvus; 2^{us}. pallide fuscus: abdomen cupreum: pedes pallide fulvi; coxæ virides; meso- et metatarsi flavi, apice fulvi: alæ sublimpidæ; squamulæ et nervi pallide fulva; stigma minutum. (Corp. long. lin. 1½; alar. lin. 1½.)

Found near London.

Sp. 170. Pter. dimidiatus. Fem. *Viridi-æneus, præcedentibus brevior, abdomen cupreum, antennæ et pedes fusca, femora viridia, alæ limpidæ.*

Caput viride: oculi ocellique rufo-picei: antennæ fuscæ; articulus 1^{us}. fulvus, apice fuscus; 2^{us}. viridi-fuscus: thorax æneo-viridis; discus cupreus: abdomen cupreum, subtus viride cupreo fasciatum; segmentum 1^{um}. læte viride, cupreo varium: pedes fusci; coxæ et femora viridia, hæ apice basique fulva; tarsi basi fulvi: alæ limpidæ; squamulæ et nervi fulva; stigma fuscum, mediocre. (Corp. long. lin. 1½; alar. lin. 2.)

Found near London.

Sp. 171. Pter. fuscescens. Fem. *Viridi-æneus, P. dimidiato brevior, abdomen cupreum basi et subtus rufum, pedes flavi aut fulvi, alæ limpidæ.*

Caput obscure viride: oculi ocellique rufo-picei: antennæ nigro-fuscæ; articulus 1^{us}. fulvus; 2^{us}. fusco-fulvus: thorax obscure

viridi-æneus : abdomen cupreum, basi et subtus rufum ; segmentum 1^{um}. viridi micans : pedes flavi ; coxae virides ; femora pallide fulva ; unguis et pulvilli fulvi : alæ limpidæ ; squamulæ et nervi pallide fulva ; stigma minutum. (Corp. long. lin. $\frac{3}{4}$ — $1\frac{1}{4}$; alar. lin. 1— $1\frac{1}{2}$.)

Var. β.—Caput læte viride : thorax æneo-viridis : proalæ subfulvæ.

Var. γ.—Thorax æneus : proalæ subfulvæ.

Var. δ.—Tibiæ et protarsi fulva ; femora obscuriora : proalæ subfulvæ.

Var. ε.—*Var. δ.* similis : metathorax viridis.

Var. ζ.—Caput et thorax viridia.

Var. η.—Abdomen basi supra cupreum.

Var. θ.—Antennis articulus 1^{us}. fuscus ; 2^{us}. fusco-æneus : metafemora fusca ; tibiæ et protarsi fulva : proalæ subfulvæ.

Var. υ.—*Var. θ.* similis : metatibiæ fuscæ.

Found near London.

GENUS XIV.—CHEIROPACHUS, *Westwood.*

Mas.—Caput mediocre, thoracis latitudine : antennæ filiformes, graciles, corporis dimidio paullo longiores ; articuli 5°. ad 10^{um}. curtantes ; clava fusiformis, acuminata, articulo 10°. multo longior : mandibulæ quadratae ; una 4-dentata, arcuata, dens externus acutus incurvus sat longus, 2^{us}. et 3^{us}. minores obtusiores, internus brevis latus obtusus ; altera 3-dentata, subarcuata, dens externus acutus incurvus sat longus, 2^{us}. brevior latior subacutus, internus latus obtusus : maxillæ latæ, sat longæ ; laciniæ angustæ, subarcuatæ, acuminatæ, intus lobatæ ; palpi 4-articulati subclavati, articuli 1^{us}. 2^{us}. et 3^{us}. breves subæquales, 4^{us}. longior fusiformis : labium angustum, fusiforme ; ligula brevis, antice lata et ciliata ; palpi 3-articulati breves lati, articulus 2^{us}. brevissimus : thorax sublinearis, parum convexus, basi et apice angustatus : prothorax brevissimus : mesothoracis parapsidum suturæ vix conspicuæ : metathorax mediocris : abdomen lineare, thorace paullo brevius et angustius ; segmenta transversa, 1^{um}. magnum, sequentia breviora subæqualia : sexualia vix conspicua : femora valida : alæ mediocres ; nervus humeralis ramulum rejiciens obsoletum, radialis cubitali plus duplo longior.

Fem.—Caput sat magnum, thorace paullo latius : antennæ extrorsum crassiores, corporis dimidio vix longiores ; articuli 5°. ad 10^{um}.

curtantes, vix latescentes; clava longi-ovata, acuminata, articulo 10^o. paullo latior et fere duplo longior: thorax ovatus, convexus: abdomen longi-ovatum, acuminatum, thorace longitus, subtus carinatum, apice pubescens: oviductus rima ventrali occultus.

Sp. 1. Cheir. quadrum. Mas et Fem. Mas. *Viridis*, *abdomen cupreum fulvo maculatum, antennæ fuscæ, pedes fulvi, proalis maculæ 2 fuscæ*. Fem. *Cupreus, abdomen immaculatum, antennæ nigro-fuscæ, pedes quam mari obscuriores*.

Diplolepis quadrum . . *Fabr. Syst. Piezat.* 152.

Cleonymus maculipennis . *Curtis, Brit. Ent.* IV. 194.

Cheiropachus quadrum . *Westwood, Zool. Journ.* IV. Pl. 2, fig. 2.

Mas.—Læte viridis, cupreo varius: oculi ocellique rufo-picei: antennæ fuscæ; articulus 1^{us}. fulvus: abdomen cupreum, basi læte viride, medium ante fulvo maculatum: pedes fulvi; coxæ virides; meso- et metatarsi flavi, apice fusci: alæ albo limpidæ; squamulæ et nervi fulva; stigma minutum; proalæ cuique maculæ 2 quadratæ nigro-fuscæ, una ad nervi ulnaris apicem, altera apud stigma major.

Fem.—Obscure cupreus: caput antice et subtus æneo-viride: oculi ocellique rufo-picei: antennæ nigro-fuscæ; articulus 1^{us}. fulvus, 2^{us}. fusco-viridis: abdomen æneo-viride; segmentum 1^{um}. micans cupreo varium; discus obscure cupreus: pedes obscure fulvi; coxæ virides; femora incrassata, subtus denticulata; tarsi flavi, apice fusci; protarsi pallide fulvi. (Corp. long. lin. 1 $\frac{1}{4}$ —1 $\frac{1}{2}$; alar. lin. 2—2 $\frac{1}{4}$.)

Var. β.—*Fem.* caput et metathorax æneo-viridia.

Var. γ.—*Fem.* caput et thorax æneo-viridia: abdomen basi cyaneum.

July, September; near London. Isle of Wight.

Sp. 2. Cheir. tutela. Mas et Fem. Mas, *viridis aut viridiæneus, abdomen cupreum flavo maculatum, pedes fulvi, antennæ et femora fusca, proalis macula rotunda nigro-fusca*. Fem. *cupreus, abdomen immaculatum, antennæ nigro-fuscæ, proalis macula major pallidior*.

Mas.—Caput viride, inter ocellos viridi-æneum: oculi ocellique rufo-picei: mandibulæ rufæ: maxillæ virides; laciniæ fulvæ:

labium et palpi fusca; ligula flava: antennæ fuscæ; articulus 1^{us}. fulvus; 2^{us}. fusco-viridis: thorax viridis; discus cupreo varius: abdomen cupreum, medium ante flavo maculatum, apice viridi-aeneum: pedes fulvi; coxae virides; meso- et metafemora et metatibiæ pallide fusca; tarsi flavi, apice fusi; protarsi obscuriores: alæ limpidæ; squamulæ et nervi fulva; stigma minutum; proalæ cuique macula apud stigma rotunda nigro-fusca.

Fem.—Caput cupreo-aeneum, antice viridi-aeneum: antennæ nigro-fuscæ; articulus 1^{us}. fulvus; 2^{us}. viridi-aeneus: thorax et abdomen cuprea, ejus discus obscurior, segmentum 1^{um}. micans viridi varium: pedes fulvi; coxae aeneæ; femora fusco cingulata; meso- et metatarsi flavi, apice fulvi: alarum maculæ quam *mari* majores et pallidiores. (Corp. long. lin. 1 $\frac{1}{4}$ —1 $\frac{1}{2}$; alar. lin. 2—2 $\frac{1}{4}$.)

Var. β.—*Mas*, caput viride: thorax æneo-viridis; suturæ cyaneo-virides: metafemora et metatibiæ obscure fusca.

Var. γ.—*Mas*, femora et tibiæ omnino fulva.

Var. δ.—*Mas*, *Var. γ.* similis: thoracis suturæ et metathorax omnino cyaneo-viridia.

Var. ε.—*Mas*, *Var. γ.* similis: thorax æneo-viridis; mesothorax cyaneo-viridi fasciatus.

Var. ζ.—*Mas*, abdomen nigro-cupreum; macula flava vix conspicua: profemora fusco cingulata; metafemora nigro-fusca.

Var. η.—*Fem.* caput et thorax viridi-aenea, illum antice viride, ejus scutum cupreum.

Var. θ.—*Fem.* caput viridi-aeneum, antice viride: femora nigro-fusca; metatibiæ fuscae.

Var. υ.—*Fem.* alarum maculæ vix conspicuae.

Var. κ.—*Fem.* caput et metathorax æneo-viridia.

May to September; on beams of wood perforated by *Anobium*, ash-trees, ivy, &c.; near London; North Wales. Found in Ireland by Mr. Haliday.

** *Prothorax productus*, antice angustus.

GENUS TRIGONODERUS, Westwood.^a

Mas.—Corpus squameum, fere glabrum: caput magnum, thorace

^a Lond. and Edinb. Phil. Mag. and Journ. of Science. Third Series. Vol. I. No. 2, p. 127.

latius, antice non impressum : oculi extantes : antennæ filiformes, pubescentes, 13-articulatæ, corporis dimidio longiores ; articuli 5°. ad 10^{um}. curtantes ; clava fusiformis, acuminata, articulo 10°. multo longior non latior : mandibulæ quadratae ; una 4-dentata fere recta, dentes breves minuti subacuti ; altera 3-dentata subarcuata, dens externus mediocris subacutus incurvus, 2^{us}. et 3^{us}. lati minuti obtusi : maxillæ breves ; laciniæ longæ, angustæ, acuminatæ, lobatæ ; palpi 4-articulati, subclavati, articuli 1^{us}. 2^{us}. et 3^{us}. breves subæquales, 4^{us}. longior fusiformis : labium breve, obconicum ; ligula brevis, antice lata et ciliata ; palpi 3-articulati, breves, crassi, articulus 1^{us}. mediocris, 2^{us}. brevissimus, 3^{us}. fusiformis 1°. longior : thorax longi-ovatus : segmenta optime determinata : prothorax magnus, antice attenuatus : mesothoracis scutum angustum ; parapsides discretæ, extantes, convexæ ; scutellum angustum, obconicum : metathorax magnus ; scutellum medio canaliculatum : abdomen cochleatum, planum, fere lœve, thoracis longitudine, apicem versus latius ; segmenta 6 subæqualia supra conspicua ; sexualia subexerta : pedes graciles, simplices, subæquales : alæ amplæ ; nervus humeralis ramulum rejiciens brevem, radialis cubitali triplo longior.

Fem.—Caput quam *mari* minus, breve, antice impressum : antennæ graciles, corporis dimidii longitudine, extrorsum vix crassiores ; articuli 5°. ad 10^{um}. curtantes, vix latescentes ; clava longi-ovata, acuminata, articulo 10°. duplo fere longior vix latior : thorax ovato fusiformis, quam *mari* angustior : abdomen lanciforme, thorace longius, apicem versus acuminatum et attenuatum, subtus carinatum et canaliculatum non angulatum nec compressum ; segmenta dorsalia 7 conspicua, 1^{um}. 2^{um}. et 3^{um}. brevia, 4^{um}. longius, 5^{um}. brevius, 6^{um}. 4°. longius, 7^{um}. breve : oviductus ad segmenti 4ⁱ. apicem conspicuus, dum quietem agit occultus.

Sp. 1. *Tri. pulcher.* Fem. *Æneo-viridis, abdomen cupreo fasciatum, antennæ nigræ, pedes rufi, proalis macula sublunaris fusca.*

Caput viride : oculi ocellique rufo-picei : trophi rufi : antennæ nigræ ; articulus 1^{us}. flavus apice supra fuscus ; 2^{us}. viridi-æneus : clava articulo 10°. latior : gula flava : thorax æneo-viridis : abdomen viride, pubescens ; segmenta apice obscure cuprea : pedes pallide rufi ; coxae virides ; meso- et metatarsi flavi ; unguis et pulvilli fusi : alæ sublimpidæ, fusco obsolete nebulosæ ; squamulæ et nervi obscure fulva ; stigma minutum ; proalæ

macula in cujusque disco sublunaris fusca. (Corp. long. lin. $2\frac{1}{4}$ — $2\frac{1}{2}$; alar. lin. $3\frac{1}{2}$ —4.)

Var. β.—Mesothorax viridi-aeneus.

June; near London.

Sp. 2. Tri. filatus. Fem. P. pulchro *gracilior*, *alæ longiores et angustiores*. *Æneo-viridis*, *abdomen viridi-cupreum basi rufum*, *antennæ nigræ*, *pedes rufi*, *proalis macula fusca*.

Caput cyaneo-viride: oculi ocellique rufo-picei: antennæ nigræ; articulus 1^{us}. fulvus, apice fuscus: trophi rufi: thorax viridis, hic et illuc aeneo-viridi varius: abdomen supra cupreum, subtus viride fasciis cupreis, basi rufum; segmentum 1^{um}. læte cyaneo-viride; 2^{um}. et sequentia basi utrinque viridia: pedes pallide rufi; coxæ virides; meso- et metatarsi flavi; unguis et pulvilli fusi: alæ sublimpidæ, fusco obsolete nebulosæ; squamulæ et nervi obscure fulva; stigma minutum; proalæ macula in cujusque disco fusca. (Corp. long. lin. 2— $2\frac{1}{2}$; alar. lin. $2\frac{3}{4}$ — $3\frac{1}{2}$.)

Var. β.—Thorax omnino viridis: abdomen basi subtus tantum rufum: metatarsi fusi.

Found near London.

Sp. 3. Tri. tristis. Fem. *Præcedenti similis*, *abdomen brevius*. *Æneo-viridis*, *abdomen cupreum*, *antennæ nigro-piceæ*, *pedes fulvi*, *proalis macula fusca*.

Caput viride: oculi ocellique rufo-picei: antennæ nigro-piceæ; articulus 1^{us}. fulvus, apice fuscus; 2^{us}. viridi-fuscus: thorax aeneo-viridis: metathorax viridis: abdomen cupreum; segmentum 1^{um}. cyaneum; 2^{um}. et sequentia basi utrinque viridia: pedes fulvi; coxæ virides; metafemora supra viridi-fusca; tarsi flavi, apice fulvi; unguis et pulvilli fusi: alæ subfuscæ; squamulæ et nervi fulva; stigma minutum; proalæ macula in cujusque disco fusca. (Corp. long. lin. $1\frac{1}{4}$; alar. lin. $1\frac{3}{4}$.)

Found near London.

Sp. 4. Tri. ductilis. Mas et Fem. *Viridis aut aeneo-viridis*, *cyaneo et cupreo varius*, *antennæ nigræ*, *pedes fulvi*, *mari femora fusca*, *alæ limpidæ*.

Mas.—Viridis: caput, pro- et mesothoracis latera et metathorax viridi-cyanea: oculi ocellique rufi: maxillæ et labium viridia:

palpi fusi: ligula et laciniae flava: antennae nigrae, pilis albis hirtae; articuli 1^{us}. et 2^{us}. nigro-virides: gula flava: mesothoracis segmentorum margines aeneo-virides; scutellum basi aeneo-cupreum: abdomen obscure cupreum, apice et utrinque viridescens; segmentum 1^{um}. basi cyaneo-viride: sexualia flava: pedes fulvi; coxae virides; femora et metatibiæ supra fusca; meso- et metatarsi apice pallide fusi: alæ limpidæ; squamulæ et nervi obscure fulva; stigma minutum.

Fem.—Læte viridis: antennis articulus 1^{us}. flavus: prothoracis latera, mesothoracis paraptera et metathorax cyanea: mesothoracis scutellum antice et postscutellum cuprea: abdomen aeneo-viride, cupreo varium, apice pubescens; segmentum 1^{um}. viridi-cyaneum: oviductus pallide fulvus; vaginæ nigrae: pedes pallide fulvi; tarsi flavi; unguis et pulvilli fusi: alis squamulæ et nervi fulva. (Corp. long. lin. 1 $\frac{1}{3}$ —2 $\frac{1}{4}$; alar. lin. 1 $\frac{3}{4}$ —2 $\frac{5}{4}$.)

Var. β.—*Mas*, caput viride: mesothoracis scutellum et epimera viridi-aenea: metathorax cyaneus.

Var. γ.—*Fem.* caput cyaneum.

Var. δ.—*Fem.* mesothoracis scutum, epimera et postscutellum viridi-aenea.

Var. ε.—*Fem.* caput et mesothoracis epimera cyaneo-viridia: abdomen viridi-cyaneum; segmenta basi et apice aenea, 1^{um}. cyaneum.

Var. ζ.—*Fem.* capitis vertex cupreo varius: mesothoracis scutellum cupreum: metathorax cyaneo-viridis.

Var. η.—*Fem.* thorax cyaneo-viridis: mesothoracis scutellum et epimera aeneo-viridia, illum antice cuprum: abdominis segmenta 2^o. ad 7^{um}. viridia, basi et apice obscure aenea.

Var. θ.—*Fem.* metafemora supra pallide viridi-fusca.

Var. ι.—*Var. θ.* similis: metatibiæ obscure fulvae.

Var. κ.—Caput et thorax viridi-cyanea, ejus segmentorum margines cupreo-aenei: antennis articulus 1^{us}. supra et apice fuscus.

Var. λ.—*Var. ι.* similis: corpus cyaneum: thoracis discus aeneo-varius: abdominis segmenta basi obscure cuprea.

Var. μ.—Caput cyaneo-viride: thorax aeneo-cupreus: abdomen cupreum; segmentum 1^{um}. cyaneo-viride; 2^{um}. et sequentia viridi-varia.

May and June; on posts and beams of wood perforated by Anobium, &c.

Sp. 5. Tri. affinis. Fem. T. ductilis *similitudine*, *abdomen brevius*. *Viridi-cupreus cyaneo varius*, *antennæ obscure fulvæ, pedes fulvi, femora fusca, alæ limpidæ*.

Caput viride: oculi ocellique rufi: antennæ obscure fulvæ; articulus 1^{us}. fulvus, apice fuscus; 2^{us}. viridi-fuscus: thorax cupreus: prothorax et mesothoracis scutum utrinque viridi-cyanea: metathorax viridis, utrinque cyaneus: abdomen cupreum; segmenta basi viridi-aenea: pedes fulvi; coxae virides; femora et metatibiæ supra pallide fusca; meso- et metatarsi flavi, apice fusci: alæ limpidæ: squamulæ et nervi flava; stigma fulvum, minutum. (Corp. long. lin. 1 $\frac{1}{4}$ —1 $\frac{2}{3}$; alar. lin. 1 $\frac{5}{4}$ —2 $\frac{1}{4}$.)

Var. β. — Capitis vertex viridi-aeneus: mesothoracis scutellum, paraptera et epimera viridi marginata: abdominis segmentum 1^{um}. lète viride, cupreo varium; 2^{um}. et 3^{um}. basi viridia.

Var. γ. — Prothorax et mesothoracis latera anteriora viridia: metathorax cyaneo-viridis: abdomen cupreum; segmentum 1^{um}. lète cyaneo-viride.

September; near London. North Wales.

Sp. 6. Tri. linearis. Fem. *Viridi-cupreus, cyaneo varius*, T. ductili *angustior*, *antennæ obscure fuscæ, pedes fulvi, femora et nonnunquam metatibiæ fusca, alæ sublimpidæ*.

Corpus longum, gracile: caput viride, antice cyaneum: oculi ocellique rufi: antennæ obscure fuscæ; articulus 1^{us}. fulvus, apice fuscus: thorax viridis, antice utrinque cyaneo-viridis; discus aeneo-cupreus: abdomen cupreum, subtus aeneo-viride, basi cyaneum: pedes fulvi; coxae virides; femora pallide fusca; meso- et metatarsi flavi, apice fusci: alæ sublimpidæ; squamulæ et nervi fulva; stigma minutum. (Corp. long. lin. 1 $\frac{1}{4}$ —1 $\frac{3}{4}$; alar. lin. 1 $\frac{1}{2}$ —2.)

Var. β. — Prothorax utrinque purpureo-cyaneus: abdomen basi viride: femora fulvo fusca.

Var. γ. — *Var. β.* similis: antennæ fuscæ: thoracis discus aeneo-viridis.

Var. δ. — Thorax viridi-aeneus; latera et metathorax viridia; prothorax utrinque purpureo-cyaneus: abdomen cupreum, basi viride: metatibiæ fuscæ.

Found near London.

Sp. 7. Tri. amabilis. Fem. T. affinis *statura*, alæ *angustiores*. *Viridi-cupreus*, antennæ nigro-fuscæ, pedes fulvi, femora viridi-fusca, metatibiæ fusco cingulatæ, alæ fulvescentes.

Caput læte viride: oculi ocellique rufi: antennæ nigro-fuscæ; articulus 1^{us}. fulvus, apice fuscus: thorax cupreus, utrinque antice viridis: abdomen viridi-æneum; segmentum 1^{um}. læte viride; 2^{um}. et sequentia apice obscure cuprea: pedes fulvi; coxæ virides; femora viridi-fusca; metatibiæ fusco cingulatæ; meso- et metatarsi apice fusci: alæ fulvescentes; squamulæ et nervi fulva; stigma minutum, obscurius. (Corp. long. lin. 1½; alar. lin. 2.)

October; near London.

Sp. 8. Tri. figuratus. Mas. *Cupreus*, T. ductilis *statura*, antennæ nigræ, pedes fulvi, femora fusco vittata, alæ subfulvescentes aut limpidæ.

Caput æneo-viride: oculi ocellique rufo-picei: antennæ nigræ; articuli 1^{us}. et 2^{us}. nigro-virides: thorax cupreus; latera et meta-thorax viridi-ænea: abdomen nigro-cupreum, basi cupreum, medio obsolete fulvum: pedes fulvi; coxæ virides; femora fusco vittata; meso- et metatarsi flavi, apice pallide fusci: alæ sub-fulvescentes; squamulæ et nervi fulva; stigma minutum. (Corp. long. lin. 1—1½; alar. lin. 1½—2.)

Var. β.—Caput viride: abdomen basi viridi-æneum: alæ limpidæ.

Var. γ.—*Var. β.* similis: tibiæ flavæ.

Found near London.

Sp. 9. Tri. deductor. Mas. T. ductili *nimiris affinis at obscurior et sœpissime multo minor*. *Viridi-cupreus cyaneo varius*, antennæ nigræ, pedes fulvi, femora et nonnunquam tibiæ fusca, alæ subfuscæ aut sublimpidæ.

Caput viride: oculi ocellique rufo-picei: antennæ nigræ; articuli 1^{us}. et 2^{us}. virides: thorax cupreus, antice et utrinque viridis; prothoracis latera cyanea: abdomen nigro-cupreum; segmentum 1^{um}. basi æneo-viride: pedes fulvi; coxæ virides; femora viridi-fusca; metatibiæ pallide fuscae: proalæ subfuscæ; squamulæ et nervi fulva; stigma minutum; metalæ sublimpidæ. (Corp. long. lin. 1—1½; alar. lin. 1¼—1¾.)

Var. β.—Metathorax viridis.

Var. γ.—Metatibiæ obscure fulvæ.

Var. δ.—Caput viridi-cyaneum.

Var. ε.—Pro- et mesotibiæ basi fulvo-fuscæ.

Var. ζ.—Thorax viridis, antice utrinque cyaneum.

Var. η.—Minutus: abdomen omnino cupreum: pro- et mesotibiæ fusco fulvæ.

Var. θ.—Thorax viridis, utrinque viridi-cyaneus: mesothoracis scutellum viridi-aeneum: proalæ sublimpidæ.

Var. ι.—Caput, pro- et metathorax obscure viridia: mesothorax cupreus: abdomen nigro-cupreum: tibiæ omnes fuscæ.

Var. κ.—Thorax cupreus, utrinque viridis: alæ sublimpidæ.

Var. λ.—Thorax obscure æneo-viridis: alæ sublimpidæ.

Found near London.

Sp. 10. Tri. elegans. Mas. *Obscure viridis, præcedentibus gracilior, abdomen nigro-cupreum, antennæ nigræ, pedes fusco-fulvi, alæ fuscæ.*

Corpus gracile: caput obscure viride, postice æneo-viride: oculi ocellique rufo-picei: antennæ nigræ; articuli 1^{us}. et 2^{us}. nigro-virides: thorax obscure viridis, æneo varius: abdomen nigro-cupreum, basi obscure viride: pedes fusco-fulvi; coxæ virides; tarsi et protibiæ fulva: alæ fuscæ: squamulæ et nervi fulva; stigma minutum; metalæ pallidiores. (Corp. long. lin. 1½—1½; alar. lin. 1¾—2.)

Var. β.—Thorax omnino viridis: abdomen basi viridi-aeneum: femora viridi-fusca.

Found near London.

Sp. 11. Tri. obscurus. Fem. *Æneo-viridis, abdomen cupreo varium, antennæ nigræ, pedes fusci, femora nonnunquam viridia, alæ sub-fuscæ, proalæ infumatae.*

Caput viridi-cyaneum: oculi ocellique picei: antennæ nigræ; articuli 1^{us}. et 2^{us}. æneo-virides: thorax æneo-viridis: mesothoracis scutellum cupreum: metathorax viridis: abdomen cupreum; segmentum 1^{um}. læte viride, cupreo varium; 2^{um}. 3^{um}. et 4^{um}. utrinque viridi-cyanea: oviductus rufus: pedes fulvi; coxæ virides; femora fusca; tibiæ fulvo-fuscæ; protarsi

obscure fulvi; meso- et metatarsi apice fusci: alæ subfuscæ; squamulæ et nervi fusca; stigma minutum; proalæ cujusque discus infumatus. (Corp. long. lin. $1\frac{3}{4}$ — $2\frac{3}{4}$; alar. lin. $2\frac{1}{4}$ — $3\frac{1}{4}$.)

Var. β.—Thorax viridis; scutellum viridi-aeneum: abdominis segmentum 1^{um}. cyaneum: femora viridi-fusca; tibiæ fuscæ.

Var. γ.—*Var. β.* similis: abdomen viridi-cyaneum; segmenta apice cuprea; 1^{um}. micans, cupreo varium.

Var. δ.—*Var. β.* similis: protarsi fusci: meso- et metatarsi obscure fulvi.

Var. ε.—Thorax æneo-viridis: tibiæ et protarsi fulva: meso- et metatarsi pallidiores.

Var. ζ.—*Var. β.* similis: meso- et metatarsi fusci, basi fulvi.

May, August, and September; near London; Devonshire.

Sp. 12. Tri. contemptus. Fem. T. obscuro *affinis at brevior et latior*. *Æneo-viridis, abdominis discus cupreus, antennæ nigræ, pedes ferruginei, femora extus fusca, alæ subfuscæ.*

Caput viride: oculi ocellique rufo-picei: antennæ nigræ; articulus 1^{us}. fulvus, apice viridi-fuscus: thorax viridi-æneus: prothorax utrinque viridis: mesothoracis scutellum cupreo varium: abdomen viride, cupreo varium; discus cupreus: pedes ferruginei; coxæ virides; femora extus fusca; genua fulva; meso- et metatarsi basi flavi, apice fusci: alæ subfuscæ; squamulæ et nervi obscure fulva; stigma minutum. (Corp. long. lin. 2; alar. lin. 3.)

Found at New Lanark, Scotland.

Sp. 13. Tri. atrovirens. Fem. T. obscuro *gracilior et obscurior*. *Nigro-viridis, abdomen cupreum, antennæ nigro-fuscæ, pedes fusci, alæ sublimpidæ.*

Corpus gracile: caput obscure viride: oculi ocellique rufo-picei; antennæ nigro-fuscæ; articulus 1^{us}. viridi-fuscus: thorax obscure viridis: metathorax cyaneo-viridis: abdomen obscure cupreum, subtus et basi viridi-cyaneum: pedes fusci; coxæ virides; femora supra viridi-fusca; meso- et metatarsi basi fulvi: alæ sublimpidæ; squamulæ et nervi fulva; stigma minutum. (Corp. long. lin. $1\frac{1}{2}$; alar. lin. $1\frac{3}{4}$.)

Found near London.

Sp. 14. Tri. dolosus. Mas et Fem. *Cupreus, thoracis latera viridia aut cyanea, antennæ mari nigræ, fem. nigro-piceæ, pedes fulvo-fusci, alæ limpidæ.*

Mas.—Caput obscure viride: oculi ocellique rufo-picei: antennæ nigræ; articuli 1^{us}. et 2^{us}. virides: thorax viridi-æneus: prothorax utrinque viridi-cyaneus: mesothoracis latera anteriora et metathorax viridia: abdomen nigro-cupreum, basi nitentius: sexualia fusca: pedes fulvi; coxae æneo-virides; femora fusco-ænea; metatibiæ fuscæ; meso- et metatarsi basi flavi: alæ limpidæ; squamulæ et nervi fulva; stigma minutum.

Fem.—Caput viride: antennæ nigro-piceæ; articuli 1^{us}. et 2^{us}. ænei: thorax cupreus; latera anteriora cyaneo viridi et purpureo varia: metathorax læte viridis, utrinque purpureus: abdomen nigro-cupreum, basi viride. (Corp. long. lin. 1—1 $\frac{1}{4}$; alar. lin. 1 $\frac{1}{4}$ —1 $\frac{1}{2}$.)

Var. β.—*Fem.* caput cyaneo-viride: antennæ pallidiores; articulus 1^{us}. æneus, basi et subtus fulvus: meso- et metatarsi flavi, apice fusi.

Var. γ.—*Fem.* metathorax cyaneus: mesotibiæ fuscæ.

Found near London.

Sp. 15. Tri. hirticornis. Mas. *Thorax quam præcedentiibus brevior, proalis nervus cubitalis radiali angulum obtusiorem fingens. Cupreus cyaneo varius, antennæ nigro-piceæ hirtæ, pedes fusci, tarsi flavi, alæ limpidæ.*

Caput et thorax cuprea: oculi et ocellique rufi: antennæ nigro-piceæ, pilis fulvis hirtæ; articuli 1^{us}. et 2^{us}. virides: prothorax, metathorax et mesothoracis latera cyanea: abdomen nigro-cupreum: pedes fusci; coxae virides; femora viridi-fusca; protarsi fulvi; meso- et metatarsi flavi, apice fusi: alæ limpidæ; squamulæ et nervi fulva; stigma minutum. (Corp. long. lin. $\frac{2}{3}$ — $\frac{3}{4}$; alar. lin. 1—1 $\frac{1}{4}$.)

Var. β.—Caput cyaneum: prothoracis discus cupreus.

Found near London.

GENUS—ISOSOMA.

Isos. vacillans. Mas. I. longulo paullo validius, antennæ et alæ latiores.

Atrum: *Eurytomæ* speciebus nonnullis simillimum: antennæ corporis dimidio longiores: prothoraci macula utrinque rufa, minima:

genua et tarsi picea : alæ fere limpidæ ; nervi nigro-fusci. (Corp. long. lin. $1\frac{3}{4}$; alar. lin. $2\frac{1}{2}$)

May ; on grass in woods ; near London.

Isos. brevicolle, (Haliday.) Mas. *Præcedenti simile at validius, antennæ crassiores, alæ latiores.*

Atrum : antennæ latæ, corporis dimidio paullo longiores : abdomen thorace brevius, fere planum : tarsi nigri : alæ limpidæ ; nervi picei. (Corp. long. lin. $1\frac{3}{4}$; alar lin. $2\frac{1}{2}$.)

Found on sand-hills, at Port Marnock, by Mr. Haliday.

Isos. brevipenne. Fem. I. *angustato similis, alæ breviores, angustiores.*

Atrum, angustum : abdomen thoracis longitudine : genua et tarsi picea : alæ subfuscæ, breves, angustæ ; nervi fusci. (Corp. long. lin. 1 ; alar. lin. 1.)

Found near London.

GENUS—EURYTOMA.

Eur. fumipennis. Mas et Fem. *Atra, tarsi rufi, alæ fuscæ.*

Mas.—Antennæ graciles, corporis dimidio multo longiores : genua rufa : alarum nervi picei.

Fem.—Multo brevior et latior. (Corp. long. lin. $1\frac{1}{4}$ — $1\frac{1}{2}$; alar. lin. $1\frac{2}{3}$ — $1\frac{3}{4}$.)

June ; Windsor Forest. New Forest, Hampshire.

GENUS—DECATOMA.

Dec. mesomelas. Fem. *Flava, antennæ metathorax abdominisque dorsum nigra, alæ limpidæ, macula apud stigma quadrata minima.*

D. mellea brevior : caput inter ocellos et postice nigro-varium : oculi picei : ocelli rufi : antennæ apice piceæ ; articulus 1^{us}. flavus : mesothoracis scutum antice utrinque nigrum : unguis et pulvilli picei : alis nervi flavi, maculæ fuscae. (Corp. long. lin. 1— $1\frac{1}{4}$; alar. lin. $1\frac{1}{4}$ — $1\frac{1}{2}$.)

June ; oak woods, at Lara in the county of Wicklow ; Mr. Haliday. July ; near London.

Dec. flavigornis. Mas et Fem. D. planæ *similitudine*, *antennæ flavæ*.

Nigra : oculi ocellique piceo-rufi : antennæ flavæ ; articuli 2^{us}. 3^{us}. et mari 1^{us}. quoque picei : fem. caput antice et prothorax utrinque flava : petiolus apice fulvus : pedes picei ; trochanteres genua et tarsi flava : alæ limpidæ ; nervi flavi ; maculæ sublunatae fuscæ, apud stigma quadratae obscuriores. (Corp. long. lin. $\frac{3}{4}$ —1 ; alar. lin. 1—1 $\frac{1}{4}$.)

June ; oak woods, at Lara in the county of Wicklow ; Mr. Haliday.

Dec. aspilus. Fem. *Nigra, subtus fulva, alæ immaculatæ*.

Caput antice et subtus fulvum : oculi ocellique piceo-rufi : thorax subtus fulvus : prothoracis latera fulvo varia : abdomen subtus fulvum, basi supra utrinque fulvo maculatum : pedes fulvi ; femora et tibiæ nigro cingulata : alæ limpidæ ; nervi flavi, ad costam obscuriores. (Corp. long. lin. 1 ; alar. lin. 1 $\frac{1}{4}$.)

June ; Isle of Wight.

GENUS—CALLIMOME.

Call. rudis. Fem. C. quadricolori *similis at angustior, antennæ quoque et pedes graciliora*.

Viridis, parum nitens : caput inter ocellos mesothoracisque scutum viridi-ænea : oculi ocellique rufi : palpi flavi : antennæ nigræ ; articulus 1^{us}. flavus : abdomen nigro-ænum, basi fulvum : oviductus abdomine dimidio longior : alæ fuscæ ; nervi concolores ; stigma parvum. (Corp. long. lin. 1 $\frac{1}{4}$; alar. lin. 2.)

June ; near London.

Call. Angelicæ. Fem. C. Geranii *coloribus at trientis tantum magnitudine*.

Torymus abdominalis ? *Bohemian, Kongl. Vetens. Acad. Handl. för år 1833.*—“ Habitat in Smolandia ad Anneberg rarius.”

Viridis, nitens, subtus cyaneo-viridis : caput et mesothorax viridi-ænea : antennæ nigro-fuscæ ; articulus I^{us}. flavus, apice supra

fuscus : gula flava : abdomen cupreo-æneum ; segmentum 1^{um}. flavum, basi viride : oviductus corpore paullo brevior : pedes flavi ; meso- et metatarsis traminei, apice fusci : alæ limpidæ ; nervi flavi ; stigma concolor, minimum. (Corp. long. lin. 1—1 $\frac{1}{4}$; alar. lin. 1 $\frac{1}{2}$ —1 $\frac{5}{4}$.)

Var. β.—Mesothorax viridis.

Var. γ.—Metapedum femora et tibiæ fulva.

Found by Mr. Haliday, on *Angelica sylvestris*, at Holywood, in Ireland.

ART. II.—*Wanderings and Ponderings of an Insect-Hunter.*

SERIES THE SECOND.

CHAPTER I.

[The Insect-Hunter speaketh of Darenth and Greenhithe.]

WHEN I awoke the sun was high in the heaven. My companion of yesterday was gone ; he had been out for hours. I had never before been on the spot ; I knew nothing of the ground ; however, I marched up the lane, and entered the wood. In this lane, be it recorded, I took *Drilus flavescens* and *Leptura 6-guttata*, besides a great number of *Criorhina oxyanthæ*, which till now I had never seen, and I well recollect how much I was struck by their velvety backs and beautiful appearance. Almost immediately on entering the wood there is a high sandy bank to the left ; when I now first saw this bank, the beams of a cloudless sun fell full upon it, and the bees were at work mining it in all directions. I soon scrambled up nearly to the top. The black *Anthophora* was throwing the loose sand behind her from an exquisitely round hole, which she was digging with all her energies, whilst her white-nosed partner was pendulizing over and about her like a sentinel on guard. The sand-wasps were flitting about and entering their burrows, and the gorgeous



Walker, Francis. 1836. "Monographia Chalciditum. (Continued.)." *The Entomological magazine* 4, 9–26.

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