

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

(Continued from p. 26.)

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

Family CLEONYMIDÆ.

GENUS CLEONYMUS, *Latreille.*

Mas. Corpus squameum, pubescens: caput parvum, thorace paullo angustius, antice non impressum: oculi mediocres, subrotundi, non extantes: ocelli in vertice triangulum fingentes: antennæ fusiformes, latæ, pubescentes, 12-articulatæ, thorace breviores; articulus 1^{us}. longus, fusiformis; 2^{us}. brevis, cyathiformis; 3^{us}. brevissimus; 4^{us}. et sequentes ad 10^{um}. breves, approximati, subcyathiformes; 11^{us}. et 12^{us} clavam fingentes conicam, acutam, subcavam, articulo 10°. duplo longiorem: mandibulæ arcuatæ, bidentatæ, similes, basi latæ subquadratæ, apice angustæ; dentes parvi acuti, externus paullo longior: maxillæ longæ, angustæ, subarcuatæ; laciniæ acuminatæ, intus dilatatæ; palpi 4-articulati graciles filiformes, articuli 1^{us}. 2^{us}. et 3^{us}. mediocres subclavatæ æquales, 4^{us}. longifusiformis acuminatus 3°. plus duplo longior: labium conicum; ligula brevis, lata, antice ciliata; palpi 3-articulati lati clavati, articulus 1^{us}. mediocris clavatus, 2^{us}. brevis subrotundus, 3^{us}. latus securiformis 1°. longior: thorax longi-ovatus, angustus, subtus per longum sulcatus: prothorax magnus, antice angustior: mesothoracis scutum planum, sat magnum; parapsides vix conspicuæ; scutellum parvum, convexum, rhombiforme; paraptera et epimera bene determinata: metathorax conspicuus, postice angustior: abdomen cochleatum, planum, scite squameum, parce pubescens, thorace vix longius; segmenta 7 dorsalia conspicua subtus fere convenientia, 1^{um}. sat longum basi impressum, 2^{um}. brevissimum, 3^{um}. paullo longius, 4^{um}. adhuc longius, 5^{um}. maximum, 6^{um}. et 7^{um}. minima; segmenta ventralia dorsalibus nisi ad abdominis apicem obtecta: sexualia dum quietem agunt occulta: pedes subæquales, simplices; coxæ magnæ; femora gracilia; tibiæ rectæ; tarsorum

articuli 1^o. ad 4^{um}. longitudine decrescentes, 5^o. 4^o. longior; ungues et pulvilli minuti; metapedes longiores, femora latiora, tibiæ subarcuatae: alæ angustæ; nervus humeralis ramulum rejiciens nullum, ulnari fere duplo longior; cubitalis longus, arcuatus, radiali dimidio brevior.

Fem.—Antennæ subfusiformes, quam *mari* breviores; articulus 1^{us}. longus, fusiformis; 2^{us}. cyathiformis; 3^{us}. parvus, subrotundus; 4^{us}. longior et latior; 5^{us}. major; 6^{us} adhuc major; 7^{us}. et sequentes ad 10^{um}. 6^l. magnitudine; 11^{us}. angustior, subcavus; 12^{us}. minimus, cuspiformis, 11^o. basi obtectus: abdomen fusiforme, thorace fere duplo longius, supra planum, subtus carinatum, non angulatum nec compressum; segmentum 1^{um}. breve, 2^{um}. brevissimum, 3^{um}. paullo longius, 4^{um}. 3^o. duplo longius, 5^{um}. adhuc majus, 6^{um}. et 7^{um}. parva: segmenta ventralia nisi ad abdominis apicem vix conspicua: oviductus dum quietem agit occultus.

Sp. 1. Cleo. depressus. Mas et Fem. *Cupreus*, antennæ *mari* *nigræ* fem. *fulvæ* apice *nigræ*, abdomen *cyaneum*, pedes *rufi*, alæ *fusco maculatae*.

Ichneumon depressus . *Fabr. Ent. Syst. Supp.* 231. 220, 221; *Coqueb. Illustr. Icon.* I. 21. Tab. 5. fig. 5.

Diplolepis depressa . *Fabr. Syst. Piezat.* 151. 13; *Spin. Ins. Lig. Fasc.* 4. 220.

Cinips depressus . . *Lamarck, Hist. Nat. des Anim. sans Vertèbres* IV. 156. 7.

Cleonymus depressus . *Latr. Gén. Crust. & Ins.* IV. 29; *Spin. Classif. Diplo. Ann. Mus.* VII. 149; *Nees ab Ess. Hym. Ich. affin. Monogr.* II. 88; *Leach, Edin. Encycl.* IX. 144; *Westw. Zool. Journ.* IV. 16. Pl. II. Fig. 1; *Novæ. Dict. d'Hist. Nat.* VII. 89.

Mas. Caput cupreum, viridi varium: oculi obscure rufi: ocelli læte rufi: palpi flavi: antennæ nigræ; articulus 1^{us}. æneus, basi fulvus: thorax cupreus, viridi-æneo varius: metathorax læte viridis: abdomen cyaneo-viride: segmenta apice basique ænea: sexualia pallide flava, apice fusca: pedes rufi; coxæ æneo-virides; meso- et metatarsi flavi, apice fusci: alæ sublimpidæ, fusco obsolete nebulosæ; proalæ cuique vitta angusta fusca, apud stigma latior; squamulæ et nervi fusca, stigma minutum concolor.

Fem. Caput læte cupreum, antice viride: palpi pallide rufi:

- antennæ fulvæ; articuli 11^{us}. et 12^{us}. nigri: thorax læte cupreus, subtus cyaneo et purpureo varius: abdomen cyaneum, basi cyaneo- viride et fere glabrum, apice pubescens; segmenta apice basique cuprea, 6^{um}. omnino cupreum: oviductus fuscus: pedes rufi; coxæ æneo- virides; meso- et metapedum tibiæ fuscæ, tarsi flavi apice rufi; protibiæ obscure rufæ: alæ albæ: proalæ fusco obsolete marginatæ, cuique fasciæ 2 connexæ fuscæ, una ante alæ medium interrupta, altera prope apicem latior obscurior: metalæ apice et postice subfuscæ. (Corp. long. lin. $1\frac{1}{3}$ — $2\frac{1}{4}$; alar. lin. $2\frac{1}{3}$ —3.)
- Var. β.*—*Mas*, metathorax cupreus: abdomen apice læte cupreum.
- Var. γ.*—*Mas*, thoracis suturæ virides: metathorax viridi-æneus, antice læte viridis.
- Var. δ.*—*Mas*, meso- et metatibiæ pallide fuscæ; mesotarsi fusci, basi albid.
- Var. ε.*—*Fem.* antennis articulus 1^{us}. apice 2^{us}. que omnino fusci.
- Var. ζ.*—*Fem.* thoracis suturæ æneo- virides: abdominis segmenta 1^o. ad 3^{um}. cyaneo- viridia, apice basique cuprea.
- Var. η.*—*Fem.* abdominis segmentum 1^{um}. læte cupreum.
- Var. θ.*—*Fem.* antennis articuli 1^{us} et 2^{us}. omnino fusci.
- Var. ι.*—*Fem.* abdomen cyaneum, basi viridi- cyaneum, apice cupreo- æneum.

Common near London, from May to August, on posts which are perforated by *Ptinus* and *Anobium*, &c.; the males are to the females in the proportion of one to twenty. It runs fast, and is also found on windows, box trees, and elms; on the latter it has been taken at Paris by the Comte de Castelneau.

Sp. 2. Cleo. laticornis, (Haliday, MSS.) *Mas. Viridi-æneus cupreo varius, antennæ nigrae, pedes nigro- virides, alæ fusco maculatæ.*

Caput cupreo-æneum; vertex viridis: oculi obscure rufi: ocelli læte rufi: trophi obscuri: antennæ nigrae; articulus 1^{us}. viridi-æneus: thorax æneo- viridis: mesothoracis scutellum æneo- cupreum: abdomen obscure viride; segmenta apicalia æneo- varia: pedes virides; tibiæ nigrae; tarsi fusci; meso- et metatarsi basi fulvi: alæ sublimpidæ, fusco obsolete nebulosæ; proalæ cuique vitta arcuata fusca, apud stigma latior et obscurior; squamulæ et nervi fusca, stigma minutum concolor. (Corp. long. lin. $1\frac{1}{3}$; alar. $2\frac{1}{3}$.)

Found by Mr. Haliday at Bexley.

Sp. 3. Cleo. obscurus. Mas. *Viridis, antennæ nigræ, abdomen cupreum, pedes rufi, alæ immaculatæ.*

Caput viride : oculi obscure rufi : ocelli læte rufi : antennæ nigræ ; articulus 1^{us}. viridis : thorax viridis : abdomen obscure cupreum, basi læte viride : pedes rufi ; coxæ virides ; tibiæ pallide fuscæ ; meso- et metatarsi albidi, apice obscure fusci : alæ sublimpidæ, immaculatæ ; squamulæ et nervi fusca ; stigma minutum concolor. (Corp. long. lin. 1½ ; alar. lin. 2.)

August, on the hazel, near London.

GENUS NOTANISUS.^a

Fem. Caput mediocre, transversum, thorace paullo latius, antice non impressum : oculi mediocres, subrotundi, non extantes : ocelli in vertice triangulum fingentes : antennæ subclavatæ, 13-articulatæ, versus os insertæ, thorace breviores ; articulus 1^{us}. longus, gracilis, subarcuatus ; 2^{us}. brevis, cyathiformis ; 3^{us}. et 4^{us}. minimi ; 5^{us}. et sequentes ad 10^{um}. curtantes et latescentes ; clava longi-ovata, apice abrupte attenuata acuminata et subtus truncata, articulo 10^o. longior : palpi maxillares 4-articulati, filiformes ; articuli 1^{us}. 2^{us}. et 3^{us}. mediocres subæquales, 4^{us}. fusiformis 3^o. plus duplo longior : thorax longus, fusiformis, inæqualis ; segmenta convexa, optime determinata : prothorax longissimus, antice angustior et declivis : mesothoracis scutum breve ; parapsidium suturæ vix conspicuæ ; paraptera et epimera maxima ; scutellum mediocre, subrhombiforme : metathorax maximus, per medium sulcatus, apice angustus : metascutellum abdomini petiolum fingens : abdomen ovatum, convexum, petiolatum, thorace brevius ; segmenta 1^o. ad 6^{um}. transversa parallela subæqualia, 7^{um}. parvum ; ventralia dorsalibus obtecta : oviductus occultus : pedes mediocres, subæquales ; coxæ magnæ ; femora subclavata ; tibiæ rectæ ; tarsi graciles, articuli 1^o. ad 4^{um}. longitudine decrescentes, 5^{us}. 4^o. longior, unguis et pulvilli parvi ; mesotarsi incrassati : alæ angustæ ; nervus humeralis ramulum nullum rejiciens, ulnari longior ; cubitalis longus, subarcuatus, angulum acutum radiali fingens et vix brevior ; stigma ramulum brevem emittens ad nervi radialis apicem propensum.

Sp. I. Not. versicolor. *Fem.* *Cupreus rufo cyaneo et purpureo varius, antennæ fulvæ, abdomen purpureum, pedes rufi, alæ fusco maculatæ.*

^a νῶτος dorsum, ἄριστος inæqualis.

Corpus scitissime squameum, glabrum, nitens; caput æneo-viride, subtus rufum: oculi et ocelli rufi: palpi maxillares nigri: antennæ læte fulvæ: gula rufa: thorax subtus rufus: prothorax cupreus, antice rufus: mesothoracis scutum purpureum, antice cyaneo viridi et cupreo varium: scutellum paraptera et epimera cuprea: metathorax læte purpureus, basi cyaneo viridi et cupreo varius: petiolus rufus: abdomen purpureum, basi viride micans: pedes rufi; coxæ, trochanteres et femora supra fusco-purpurea; tarsi apice fusci: alæ albæ; proalis fasciæ 2 fuscæ, una ad nervi humeralis apicem angusta, altera apud stigma latior; squamulæ et nervi fusca, stigma minutum concolor. (Corp. long. lin. $1\frac{2}{3}$; alar. lin. $1\frac{2}{3}$.)

July; south of France.

The structure of the four following genera excludes them from the families of Chalcidites. *Prosopon* resembles *Pteromalus*, but has dilated middle-feet like *Eupelmus*, &c.

GENUS MACRONEURA.^b

Mas. Corpus sublineare: caput mediocre, thorace vix latius, antice non impressum: oculi mediocres, subrotundi, non extantes; ocelli in vertice triangulum fingentes: antennæ moniliformes, 13-articulatæ, corpore paullo breviores; articulus 1^{us}. crassus longus fusiformis; 2^{us}. cyathiformis; 3^{us}. minimus; 4^{us}. et sequentes ad 10^{um}. subovati, æquales; clava subfusiformis, articulo 10°. duplo longior non latior: mandibulæ quadratæ, subarcuatæ, tridentatæ, intus concavæ, apice angustæ; dentes minuti recti, externus acutus, internus latus brevissimus: maxillæ longæ, subarcuatæ; lacinia lobatæ, acuminatæ; palpi 4-articulati, filiformes, articuli 1^{us}. 2^{us}. et 3^{us}. subæquales, 4^{us}. longifusiformis 3°. multo longior: labium ovatum; ligula brevis, lata; palpi tri-articulati, breves, moniliformes; articulus 2^{us}. brevissimus: thorax longi-ovatus; segmenta convexa, bene determinata: prothorax magnus, antice angustus et declivis: mesothoracis scutum breve, parapsidum suturæ distinctissimæ; paraptera et epimera magna; scutellum ovatum: metathorax magnus, per medium sulcatus: abdomen longiovatum, planum, thorace paullo brevius; segmentum 1^{um}. magnum; sequentia breviora, subæqualia: pedes validi, simplices, æquales; coxæ sat magnæ; femora et tibiæ

^b μακρὸς longus, νεῦρα nervus.

recta; tarsorum articuli 1°. ad 4^{um}. longitudine decrescentes, 5^{us}. 4°. longior; unguis et pulvilli minuti; protibiæ cujusque apice spina longa valida subarcuata: alæ mediocres; nervus humeralis ulnari multo longior, ante costam attingit incrassatus, ramulum nullum rejiciens; cubitalis longus, subarcuatus, radiali dimidio brevior; stigma ramulum vix conspicuum emittens.

Fem. Caput thoracis latitudine: antennæ clavatæ, submoniliformes, juxta corporis dimidio longi; articuli 3^{us}. et 4^{us}. minimi; 5°. ad 10^{um}. latescentes; clava conica, articulo 10°. paullo longior vix latior: abdomen sublineare, thorace paullo longius, apice acuminatum, subtus carinatum; segmenta dorsalia subæqualia, ventralia vix conspicua; oviductus non exertus.

Sp. 1. Mac. maculipes. *Mas et Fem. Viridi-æneus, antennæ nigre, abdomen cupreum, pedes nigri flavo-cincti, alæ fuscæ.*

Mas. Obscure viridis: oculi ocellique obscure rufi: antennæ nigre; articulus 1^{us}. nigro-viridis: mesothoracis scutellum, paraptera et epimera cupreo-ænea: abdomen cupreum, basi viride; sexualia fusca, subexerta: pedes læte flavi; coxæ et femora nigro-ænea; tibiæ apice nigre; tarsi apice nigro-fusci; protibiæ et protarsi fulva, hi apice et illæ subtus fusca: alæ angustæ, fuscæ; squamulæ et nervi nigro-fusca; stigma minutum, concolor.

Fem. Caput viride, postice æneum: thorax cupreo-æneus: prothorax viridis: abdomen cupreum, basi micans et viridi varium: coxæ et femora ænea; trochanteres, genua et protarsi fulva; tibiæ nigro-fuscæ; tarsi læte flavi apice nigri. (Corp. long. lin. $\frac{1}{2}$ —1; alar. lin. $\frac{2}{3}$ —1 $\frac{1}{4}$.)

Var. β. Mas, abdomen cupreum, apice nigro-cupreum.

Var. γ. Fem. abdomen basi omnino cupreum.

June to September; on grass beneath trees; near London; Isle of Wight. Found by Mr. Haliday, at Port Marnock, Ireland; and by the Rev. G. T. Rudd, in Durham.

GENUS MEROSTENUS.^o

Mas. Corpus angustum, sublineare: caput magnum, transversum, thorace paullo latius: oculi mediocres, subrotundi, extantes: ocelli in vertice triangulum fingentes: antennæ 13-articulatæ, graciles, filiformes, corporis longitudine; articulus 1^{us}. longus, gracilis, subarcuatus; 2^{us}. mediocris, cyathiformis; 3^{us}. et 4^{us}. minimi;

c μέρος pars, στενός angustus.

5^{us}. et sequentes ad 12^{um}. lineares, curtantes; 13^{us}. 12°. longior, apice conicus: thorax longus, linearis; segmenta bene determinata, convexa: prothorax magnus, subquadratus: mesothoracis scutum parvum; parapsidum suturæ optime determinatæ; scutellum breviovatum; paraptera et epimera magna: metathorax magnus, per medium sulcatus; abdomen sublineare, planum, thorace brevius, basi angustum, apice subquadratum; segmenta transversa subæqualia: pedes longi, graciles, simplices; coxæ magnæ; femora juncea; tibiæ rectæ; tarsi longi, articuli 1°. ad 4^{um}. longitudine decrescentes, 5^{us}. 4°. longior; ungues et pulvilli minuti; alæ longæ, angustæ; nervus humeralis ulnari vix longior, ramulum nullum emittens; cubitalis mediocris, rectus; radialis cubitali duplo longior; stigma ramulum brevem emittens.

Sp. 1. Mer. Phedyma. Mas. *Viridis, antennæ nigræ, abdomen nigro-cæneum basi rufum, pedes flavi, alæ subfuscæ.*

Corpus scite squameum, pubescens: caput viride, antice cyaneo-viride: oculi ocellique rufi: antennæ nigræ, pubescentes; articulus 1^{us}. fulvus, apice fuscus, 2^{us}. fusco-viridis: thorax viridis: abdomen nigro-æneum, læve, basi rufescens viridi indistincte varium, fere glabrum, apice hirtum: sexualia fusca: pedes flavi; metafemora apice fusca; mesotibiæ fusco cinctæ; tarsi fuscii: alæ subfuscæ; squamulæ et nervi pallide fusca: stigma minutum concolor. (Corp. long. lin. $\frac{3}{4}$; alar. lin. 1.)

August; near London,

GENUS CEA, *Holiday.*

Fem. Caput mediocre, transversum, subquadratum, antice impressum, thorace paullo latius: oculi mediocres, subrotundi, non extantes: ocelli in vertice triangulum fingentes: antennæ graciles, filiformes, corporis dimidio longiores; articulus 1^{us}. longissimus, gracilis; 2^{us}. longi-cyathiformis, mediocris; 3^{us}. et sequentes breviores, æquales, approximati; thorax longi-ovatus, angustus, convexus: prothorax mediocris: mesothoracis parapsidum suturæ bene determinatæ; scutellum parvum: metathorax magnus, abdomini petiolum fingens: abdomen longi-ovatum, angustum, compressum, thorace paullo longius; segmenta transversa, subæqualia, ventrem obtegentia: oviductus exertus: pedes longi, graciles, subæquales; coxæ magnæ; femora recta; tibiæ simplices; tar-

sorum articuli 1°. ad 4^{mm}. longitudine decrescentes, 5^{us}. 4°. longior; ungues et pulvilli minuti: alæ nullæ.

Sp. 1. *Cea pulicaris*. Fem. *Nigro-ænea*, *aptera*, *antennæ nigrae*, *tarsi nigro-picei*.

Nigro-ænea, nitens, lævis, glabra, aptera: oculi et ocelli obscure rufi: antennæ nigrae: oviductus vaginæ nigrae, abdominis dimidio longiores: pedes nigri; coxæ et femora nigro-ænea; tarsi nigro-picei. (Corp. long. lin. $\frac{2}{3}$.)

Found by Mr. Haliday, at Holywood, on grass under trees.

GENUS PROSOPON.^d

Mas. Caput mediocre, transversum, thorace vix latius: oculi mediocres, subrotundi, non extantes: ocelli in vertice triangulum fingentes: antennæ graciles, clavatæ, 13-articulatæ, corporis dimidio paullo breviores; articulus 1^{us}. longus, rectus; 2^{us}. cyathiformis; 3^{us}. et 4^{us}. minimi; 5^{us}. et sequentes ad 10^{mm}. mediocres, subæquales; clava ovata, articulo 10°. multo latior et plus duplo longior: mandibulæ quadratæ, 4-dentatæ, subarcuatæ; dentes parvi acuti, externus arcuatus longior: maxillæ longæ, angustæ, arcuatæ; lacinia acuminatæ, lobatæ; palpi 4-articulati, graciles, filiformes; articuli 1^{us}. 2^{us}. et 3^{us}. subæquales, 4^{us}. fusiformis acuminatus 3°. multo longior: labium longi-ovatum, angustum; ligula brevis; palpi 3-articulati, breves, moniliformes; articulus 2^{us}. brevissimus: thorax ovatus; prothorax brevissimus, supra vix conspicuus: mesothoracis parapsidum suturæ bene determinatæ; scutellum brevi-ovatum: metathorax mediocris, per medium carinatus: abdomen ovatum, planum, thoracis longitudine; segmenta transversa, subæqualia: pedes graciles; femora recta; tibiæ simplices; tarsorum articuli 1°. ad 4^{mm}. curtantes, 5^{us}. 4°. longior; mesotarsi lati; ungues et pulvilli minuti: alæ mediocres: nervus humeralis ulnari multo longior, ramulum nullum rejiciens; cubitalis longus, rectus; radialis cubitali dimidio longior; stigma ramulum nullum emittens.

Sp. 1. *Pro. montanum*. *Mas.* *Viridi-æneus*, *antennæ fusca*, *abdomen nigro-cupreum*, *pedes fulvi-æneo et fusco varii*, *alæ sublimpidæ*.

^d πρόσωπον, persona.

Æneus, squameus, parum nitens, parce pubescens: oculi et ocelli obscure rufi: antennæ pallide fuscae; articulus 1^{us}. nigro-æneus; 2^{us}. supra nigro-fuscus: abdomen nigro-cupreum, nitens, læve, fere glabrum: sexualia fulva, exerta: pedes fulvi; coxæ et femora ænea; tibiæ fusco cinctæ; mesotarsi fusci; pro- et metatarsi apice fusci: alæ sublimpidæ; squamulæ et nervi fulva; stigma parvum, fuscum. (Corp. long. lin. $\frac{3}{4}$; alar. lin. 1.)

Var. β. Caput et thorax viridia: mesothoracis scutellum cupreo-æneum: abdomen basi viridi-æneum: tibiæ fuscae, basi fulvæ.

September, on heath; Cumberland and North Wales.

GENUS STENOCERA.⁶

Fem. Corpus longum, gracile, sublineare, scitissime punctatum, fere glabrum: caput mediocre, subquadratum, thorace paullo latius; frons sulcata et utrinque elevata: oculi magni, extantes, supra non approximati: ocelli in vertice triangulum fingentes: antennæ gracillimæ, filiformes, 11-articulatæ, prope os insertæ, thorace longiores; articulus 1^{us}. longus, gracilis, subarcuatus; 2^{us}. longi-cyathiformis, mediocris; 3^{us}. brevissimus; 4^{us}. et sequentes ad 10^{um}. curtantes; 11^{us}. longi-ovatus, 10^o. paullo latior et longior: thorax fusiformis: prothorax maximus, angustus, antice attenuatus: mesothoracis scutum magnum, planum, semi-circulum fingens; parapsidum suturæ vix conspicuæ; scutellum subrhombiforme; paraptera bene determinata, utrinque inter scutum et scutellum conspicua: metathorax mediocris: abdomen fusi-forme, thorace longius et paullo angustius; segmenta 1^o ad 5^{um}. transversa, incurva, subæqualia; 6^{um}. angustum, convexum, acuminatum: oviductus occultus: pedes longi, graciles; coxæ parvæ; femora juncea; tibiæ rectæ; tarsorum articuli 1^o. ad 4^{um}. curtantes, 5^{us}. 4^o. longior: ungues et pulvilli minimi; mesopedum tibiæ longiores apice spina valida armatæ, tarsi breviores lati: alæ mediocres; nervus humeralis ulnari multo longior, ramulum nullum rejiciens; cubitalis brevissimus, stigmati punctiformi ramulum nullum emittente terminatus; radialis brevis, cubitali duplo longior.

Sp. 1. *Sten. Walkeri.* Fem. *Cupreus viridi varius, antennæ nigrae, pedes fusco-virides, alæ limpidæ.*

⁶ στενός angustus, κέρας cornu.

Stenocera Walkeri. *Curtis, Brit. Ent.* 596.

Caput viride, postice cyaneo-viride: oculi ocellique rufi: antennæ nigrae, pubescentes; articulus 1^{us}. viridis: thorax cupreus, obscurus, utrinque postice et subtus viridis: abdomen cupreum; discus ater: pedes fere glabri; coxæ necnon propedum femora et tibiæ viridia; genua fulva; meso- et metapedum femora et tibiæ fusca, apice fulva; tarsi nigro-fusci, basi fulvi; mesotarsi pallidiores: alæ limpidae; squamulae et nervi pallide fusca; stigma minimum, concolor. (Corp. long. lin. $1\frac{1}{2}$; alar. lin. $1\frac{1}{2}$.)

July, near London, on lime and oak trees.

GENUS CALOSOTER.^f

Mas.—Corpus angustum, sublineare, scitissime punctatum, fere glabrum: caput mediocre, thoracis latitudine, antice vix impressum: oculi magni, subrotundi, extantes, supra approximati: ocelli in vertice triangulum fingentes: antennæ filiformes, graciles, pubescentes, 13-articulatae, thorace paullo longiores, ad os insertae; articulus 1^{us}. longus fusiformis, 2^{us}. mediocris sublinearis, 3^{us}. parvus, 4^{us}. et sequentes ad 10^{um}. gradatim curtantes vix latescentes; clava longi-ovata, articulo 10°. paullo latior et plus duplo longior: mandibulae quadratae, subarcuatae, tridentatae, similes; dentes parvi, externus et medius acuti subaequales, internus latus obtusus: maxillae longae, angustae, subarcuatae; laciniae dilatissimae, subrotundae, ciliatae; palpi 4-articulati, breves; articulus 1^{us}. mediocris longi-cyathiformis, 2^{us}. et 3^{us}. subcyathiformes 1°. paullo longiores et latiores, 4^{us}. fusiformis ciliatus 3°. multo longior: labium conicum; ligula brevis, lata, ciliata; palpi 3-articulati, subclavati, breves, articulus 1^{us}. mediocris longi-cyathiformis, 2^{us}. minutus subrotundus, 3^{us}. latior ovatus: thorax longi-ovatus, depressus: prothorax magnus, antice angustior et declivis: mesothoracis latera elevata; scutum concavum; parapsides distinctae, parallelae, approximatae; scutellum latum, postice semicirculum fingens: metathorax conspicuus: pectoris segmenta bene determinata: abdomen sublineare, planum, basi angustius, apice conicum, thorace paullo longius; segmenta 6 dorsalia, 1^{um}. 3^{um}. 4^{um}. et 5^{um}. subaequalia, 2^{um}. et 6^{um}. breviora; ventralia dorsalibus obtecta: sexualia occulta: pedes mediocres; propedes breviores; metapedes longiores; mesopedum tibiæ apice latae et spina longa valida armatae, tarsi incrassati; coxæ parvae; femora gracilia; tibiæ rectae;

^f Καλον lignum, σωτήρ servator.

tarsorum articuli 1^o. ad 4^{um}. curtantes, 5^{us}. 4^o. longior; unguis et pulvilli parvi: alæ mediocres; nervus humeralis ulnari brevior, ante costam attingit incrassatus, ramulum nullum rejiciens; cubitalis subarcuatus, radiales paullo brevior; ramulus stigmate emissus nervi radialis apicem fere attingens.

Fem.—Corpus quam *mari* longius: antennæ extrorsum crassiores; articulus 2^{us}. longi-cyathiformis; 3^{us}. et sequentes ad 10^{um}. curtantes et latescentes: abdomen longi-fusiforme, thorace multo longius, apice attenuatum et acuminatum; segmenta dorsalia subæqualia, 2^{um}. brevius, 6^{um}. angustius acuminatum, 1^{um}. et sequentia fere ad 4ⁱ. apicem depressa utrinque elevata.

Sp. 1. Cal. vernalis. Mas. et Fem. *Nigro-cupreus*, antennæ nigrae, pedes nigri, alæ fuscae.

Mas.—Caput nigro-viride: oculi et ocelli rufi: antennæ nigrae; articulus 1^{us}. nigro-iridis: gula fulva: thorax æneo-cupreus, obscurus, subtus viridis nitens: metathorax cyaneo-iridis nitens: abdomen nigro-cupreum, fere læve, breviter et parce pubescens: sexualia fusca: pedes nigri; femora et coxæ nigro-ænea; mesotibiis spinæ fusca; protarsi basi et genua fulva; meso- et metatarsi fusci, basi fulvi: alæ fusca; squamulae et nervi obscure fusca; stigma minutum, concolor.

Fem.—Caput cyaneo-iride: thorax nigro-cupreus; latera viridi varia; metathoracis latera læte cyanea: abdomen nigro-cupreum, basi micans, subtus cyaneo-iride: oviductus subexertus; vaginae nigrae: protarsi nigro-fusci: meso- et metapedum tibiæ apice fulvæ, tarsi fulvi apice fusci. (Corp. long. lin. $1\frac{1}{2}$ — $2\frac{1}{2}$; alar. lin. $1\frac{3}{4}$ — $2\frac{3}{4}$.)

Var. β.—*Mas.* abdominis segmentum 1^{um}. basi æneo-iride.

Var. γ.—*Fem.* mesothoracis scutum cyaneo-vittatum: abdomen basi purpureo-cupreum.

Var. δ.—*Fem.* protarsi pallide fusci, basi subtus fulvi.

May; near London: with *Cleonymus depressus*; and the males and females in the same proportion. It runs slowly, and moves sideways when approached. Found at Holywood, Ireland, by Mr. Haliday.

Sp. 2. Cal. æstivalis. Mas. et Fem. *Nigro-cupreus*, antennæ nigrae, pedes nigri flavo cincti, alæ limpidæ.

Mas.—Caput æneum, postice et subtus cyaneo-iride: palpi maxil-

lares nigri, labiales fuscii: oculi et ocelli rufi: antennæ nigræ; articulus 1^{us} nigro-viridis: thorax nigro-æneus, obscurus: pectus viridi-cyaneum: abdomen æneo-cupreum, parum nitens: pedes nigri; coxæ virides; femora nigro-viridia; genua et tibiæ apice subtus flava; mesotibiæ flavæ, basi nigræ: alæ limpidae; squamulæ et nervi pallide fusca; stigma minimum, concolor.

Fem.—Caput cupreo-æneum, subtus et postice cyaneo-viride: thorax cupreo-æneus: metathoracis latera viridi-ænea: abdomen cupreum, basi fere glabrum, apice dense pubescens: oviductus subexertus; vaginæ nigræ: metapedum tibiæ flavæ basi nigræ, tarsi basi flavi: mesotarsi fuscii, basi flavi; alarum squamulæ et nervi fulva. (Corp. long. lin. 1—2; alar. lin. $1\frac{1}{2}$ — $2\frac{1}{4}$.)

Var. β.—*Mas.* metathorax et abdominis latera viridia.

Var. γ.—*Fem.* caput cyaneo-viride; vertex æneus.

Var. δ.—*Fem.* abdominis segmentum ultimum basi cyaneum.

Var. ε.—*Fem.* metatibiæ nigræ, apice flavæ.

Var. ζ.—*Fem.* pectus purpureo-cyaneum: coxæ et femora cyanea.

June and July; near London. In habit like *C. vernalis*. The males are most abundant in June, and stand in clusters near the holes perforated by *Anobium*.

GENUS EUPELMUS, *Dalman*.

Caput *mari* magnum transversum subquadratum thorace latius non impressum, *fem.* mediocre juxta thoraci latum antice subimpressum: oculi sat magni, subrotundi, vix extantes: ocelli in vertice triangulum fingentes: antennæ clavatæ, 13-articulatæ, pubescentes; articulus 1^{us}. longus, validus, subfusiformis; 2^{us}. longi-cyathiformis, mediocris; 3^{us}. et 4^{us}. minimi; 5^{us}. et sequentes subcyathiformes, usque ad 10^{um}. latescentes et curtantes; clava ovata, articulo 10^o. latior et plus duplo longior: mandibulæ oblongo-quadratæ, subarcuatæ, tridentatæ, basi latæ; dentes parvi, externus longior acutior, internus brevior obtusior: maxillæ longæ, subtrigonæ, basi latæ; lacinia subarcuatæ, acuminata, intus lobatæ; palpi 4-articulati, graciles, breves, fere filiformes, articuli 1^{us}. 2^{us}. et 3^{us}. mediocres subæquales, 4^{us}. fusiformis acuminatus 3^o. duplo longior: labium breve, ovatum; ligula brevis, lata, ciliata; palpi 3-articulati, breves, crassi, filiformes, articulus 1^{us}. longi-cyathiformis, 2^{us}. brevissimus, 3^{us}. fusiformis vix 1ⁱ. longitudine: thorax longi-ovatus: prothorax mediocris, antice declivis: mesothoracis scutum longum, depressum, utrinque elevatum; scutellum obconicum: metathorax mediocris: abdomen longi-ovatum, thorace

paullo angustius vix longius; segmenta per discum incurva, 1^{um}. longum, 2^{um}. breve, 3^{um}. 2^o. longius, 4^{um}. adhuc longius, 5^{um}. 1ⁱ. longitudine, 6^{um}. breve: pedes validi; coxæ sat magnæ; femora recta; tibiæ simplices; tarsorum articuli 1^o. ad 4^{um}. longitudine decrescentes, 5^{us}. 4^o. longior; ungues et pulvilli parvi; mesopodum tibiæ apice spina longa valida armatæ, tarsi lati ciliati: alæ completæ mutilatæ aut nullæ.

Sp. 1. Eup. urozonus. Fem. *Viridi-æneus*, antennæ nigræ, pedes flavi viridi et fusco cincti, alæ limpidæ completæ.

Eupelmus urozonus. Dalman, *Kongl. Vetens. Acad. Handl. för år 1820; N. ab Ess. Ich. affin. monogr. II. 74.*

Viridi-æneus, parum nitens, scitissime squameus, parce et breviter pubescens: caput antice cyaneo-viride: oculi ocellique obscure rufi: palpi maxillares nigri: antennæ nigræ; articulus 1^{us}. nigro-viridis: thorax planus: abdomen planum, nitens, fere læve, basi æneo-viride; discus cupreus: oviductus vaginæ nigræ, flavo late cinctæ, abdominis dimidio vix breviores: pedes flavi; coxæ, pro- et metafemora viridia; trochanteres fusci; tibiæ et mesofemora viridi cincta; protarsi nigro-fusci, basi pallidiores; meso- et metatarsi pallide fusci, basi flavi, horum scopulæ nigræ: alæ limpidæ, completæ; squamulæ et nervi fulva; nervus humeralis ulnari vix longior, ramulum nullum rejiciens; cubitalis mediocris, subincurvus; radialis brevissimus, cubitali non longior; stigma minutum, ramulum brevissimum emittens. (Corp. long. lin. $\frac{1}{2}$ — $1\frac{1}{2}$; alar. lin. $\frac{3}{4}$ —2.)

Var. β .—Prothoracis latera antice cyanea.

Var. γ .—Thorax viridis: protarsi pallide fusci: mesotibiæ flavæ, medio supra fuscæ.

Var. δ .—Caput et thorax viridia: mesothoracis scutellum cupreum.

Var. ϵ .—Pro- et metatibiæ virides, apice flavæ: mesotibiæ fusco-cinctæ: tarsi flavi, apice pallide fusci: protarsi obscure fulvi.

Var. ζ .—Thorax cyaneo-viridis.

Var. η .—Thorax cupreo-æneus.

May to October; near London, Windsor Forest, Isle of Wight, Devonshire, South of France. Taken at Paris by the Comte de Castelneau.

Sp. 2. Eup. Degeeri. Fem. *Viridi-æneus*, antennæ nigræ, abdomen cupreum basi fulvum, pedes fusco-flavi, alæ brevissimæ.

Ichneumon non ailé à deux vessies mobiles. *De Geer*. II. 909.
Tab. 31. fig. 22.

Diplolepis vesicularis . *Spin. Ins. Lig.* III. 161. 13.

Eupelmus De Geeri . *Dalman, Kongl. Vetens. Acad. Handl.*
för år 1820; N. ab Ess. Hym. Ich.
affin. monogr. II. 76.

Viridi-æneus, parum nitens, scitissime squameus, parce et breviter pubescens: oculi ocellique obscure rufi: palpi nigri: antennæ nigræ; articulus 1^{us}. fulvus, basi fuscus: gula fulva: pro- et metathorax quam *E. uroazono* majores: abdomen cupreum, convexum, subcylindricum, scitissime rugosum, basi fulvum; segmenta subæqualia, supra non incurva: oviductus exertus, fulvus, medium ante abdomen subtus apparens; vaginae nigræ, fulvo cinctæ, abdomine quartato longitudine: coxæ et femora ænea; trochanteres et genua fulva; tibiæ æneo-fuscæ, apice flavæ; tarsi flavi, apice pallide fusci: alæ limpidae, brevissimæ. (Corp. long. lin. $\frac{3}{4}$ — $1\frac{1}{4}$.)

Var. β.—Antennis articulus 1^{us}. flavus.

Var. γ.—Tibiæ flavæ, basi fuscæ.

Var. δ.—Femora omnia subtus, mesofemora basi quoque æneo-fusca; mesotibiæ flavæ, basi fuscæ.

Var. ε.—Caput cyaneo-viride.

Var. ζ.—Thorax cyaneo-viridis.

June to September; near London, Cumberland, Isle of Wight, Devonshire, Cornwall. Found by Mr. Haliday, on sand-hills, at Port Marnock, in Ireland; and at Paris by the Comte de Castelneau.

Sp. 3. Eup. excavatus. Mas. *Cyaneus rufo varius, antennæ nigræ, abdomen cupreum, pedes rufi, alæ nullæ.*

Eupelmus excavatus . *Dalman, Kongl. Vetens. Acad. Handl.*
för år 1820; N. ab Ess. Hym. Ich.
affin. monogr. II. 79.

Caput æneo-viride, magnum, thorace latius, non impressum: oculi ocellique obscure rufi: antennæ nigræ, robustæ, corporis dimidio longiores; articulus 1^{us}. flavus: thorax rufus, inæqualis, glaber, fere lævis; discus cyaneus, rufo varius: abdomen cupreum, ovatum, subcylindricum, nitens, læve, glabrum, basi cyaneum, thorace paullo brevius et latius; segmenta subæqualia: pedes pallide rufi; tarsi flavi, apice fusci; mesopedum femora coxæ et tibiæ supra fusca; meso- et metafemora apice supra fusca: alæ nullæ. (Corp. long. lin. 1.)

Var. β.—Thorax cyaneus, cupreo varius, utrinque et subtus piceus : meso- et metafemora necnon metatibiæ supra fusca.

May, September; near London; Isle of Wight. Taken at Paris by the Comte de Castelneau.

GENUS ERICYDNUS, *Haliday.*

Mas.—Caput mediocre, transversum, convexum, juxta thoraci latum, non impressum : oculi mediocres, subrotundi, non extantes : ocelli in vertice triangulum fingentes : antennæ 13-articulatæ, longissime fusiformes, corpore paullo breviores ; articulus 1^{us}. longus, rectus ; 2^{us}. longi-cyathiformis ; 3^{us}. et sequentes ad 10^{um}. æquales, subquadrati, approximati ; clava conica, acuminata, articulo 10^o. angustior et plus duplo longior : mandibulæ subtrigonæ, arcuatæ, angustæ, acuminatæ, edentatæ : maxillæ longæ, angustæ, subarcuatæ ; lacinia acuminatæ, lobatæ ; palpi 3-articulati, filiformes, articuli 1^{us}. et 2^{us}. mediocres subæquales, 3^{us}. fusiformis acuminatus 2^o. multo longior : labium brevi-ovatum ; ligula brevis ; palpi 3-articulati breves crassi moniliformes, articulus 2^{us}. brevissimus : thorax ovatus, planus : prothorax minimus, supra non conspicuus : mesothoracis segmenta maxima ; parapsidum suturæ vix conspicuæ ; paraptera inter scutum et scutellum convenientia ; scutellum subrhombiforme : metathorax brevissimus : abdomen ovatum, planum, basi latum, thorace paullo brevius et angustius ; segmentum 1^{um}. longum ; sequentia breviora, subæqualia : pedes longi ; femora recta ; tibiæ simplices ; tarsorum articuli 1^o. ad 4^{um}. curtantes, 5^{us}. 4^o. longior ; metapedes propedibus longiores ; mesopedes adhuc longiores, tibiæ cuique spina longa valida, tarsi crassi ciliati : ungues et pulvilli parvi : alæ breves, angustæ ; nervus humeralis ulnari plus triplo longior, ramulum nullum rejiciens ; cubitalis mediocris, rectus ; stigma ramulum brevem emittens.

Fem.—Caput thorace angustius : antennæ subclavatæ, 12-articulatæ, corporis dimidio longiores, quam *mari* paullo breviores ; articuli 3^o. ad 9^{um}. curtantes ; clava ovata, articulo 9^o. latior et fere duplo longior : abdomen ovatum, thoracis statura et forma oviductus occultus.

Sp. 1. *Eri. paludatus.* (Haliday, MSS.) *Mas.* et *Fem. Nigrocyaneus, rufo varius, antennæ nigrae, abdomen cupreo-piceum, pedes rufi fusco cincti, alæ subfuscae.*

Mas.—Caput nigro-cyaneum : oculi ocellique rufi : antennæ nigrae ; articulus 1^{us}. nigro-viridis, basi pallidus : thorax nigro-cyaneus,

utrinque et subtus rufus: abdomen cupreo-piceum: sexualia fusca: pedes pallide rufi; tarsi apice fusci; metafemora apice supra fusca; protibiæ pallide fuscae; metatibiæ et metatarsi nigro-fusca: alæ subfuscae, apice obscuriores; squamulæ et nervi fusca; stigma minutum, concolor.

Fem.—Thorax antice rufo fasciatus: abdomen basi rufum: protibiæ pallide rufæ. (Corp. long. lin. $\frac{5}{4}$ —1; alar. lin. 1—1 $\frac{1}{4}$.)

Found by Mr. Haliday at Holywood and Port Marnock.

Sp. 2. *Eri. strigosus*. Mas. et Fem. *Viridis aut æneus, antennæ nigræ, abdomen cupreum, pedes fusco-fulvi, alæ subfuscae.*

Encyrtus strigosus. *Nees ab Ess. Hym. Ich. affin. monogr. II. 227.*

Mas.—Viridis, scite squameus, parum nitens, fere glaber: oculi ocellique obscure rufi: antennæ nigræ, pubescentes; articulus 1^{us}, nigro-viridis: palpi maxillares flavi; articulus 3^{us}, fuscus: abdomen nigro-cupreum, nitens, basi fusco-cupreum: sexualia fusca: pedes pallide fulvi, pubescentes; tarsi supra fusci; metapedum femora supra fusco vittata, tibiæ et tarsi nigro-fusca, illæ basi fulvæ: alæ subfuscae; squamulæ et nervi fusca; stigma minutum, concolor.

Fem.—Viridi-æneus: abdomen cupreum, basi fusco-cupreum: propedes obscure fulvi, tarsi fusci: mesopedes pallide fulvi, tarsi fusci: metapedes nigro-fusci, femora subtus fulva. (Corp. long. lin. $\frac{1}{2}$ — $\frac{3}{4}$; alar. lin. $\frac{3}{4}$ —1.)

Var. β.—*Mas.* caput et thorax viridi-ænea: abdomen basi fulvo-cupreum.

Var. γ.—*Mas.* profemora et protibiæ obscure fulva.

Var. δ.—*Mas.* caput et thorax ænea: abdomen basi fulvum.

Var. ε.—*Fem.* caput, prothorax et mesothoracis scutum viridia: abdomen omnino nigro-cupreum: pro- et mesopedes pallide fulvi; metapedes fusci, tibiæ basi et femora subtus fulva.

Var. ζ.—*Fem.* *Var. ε.* similis: caput et thorax omnino viridia.

Var. η.—*Fem.* caput cyaneo-viride: thorax viridis.

Var. θ.—*Fem.* pro- et metapedes obscure fulvi.

Var. ι.—*Fem.* caput, prothorax et mesothoracis scutum viridi-cyanea: abdomen omnino cupreum: propedes obscure fulvi.

March, June, September, October; near London, Windsor Forest, Isle of Wight, North Wales, Cumberland, Scotland. Found by Mr. Haliday, at Port Marnock on the sea-coast, at Holyhead, and in the Isle of Skye.