

to my friend, whose skill as an engraver, aided by his intimate knowledge of the subject, has mainly contributed to render these pages intelligible. I may say with Marcel de Serres : In this work I have no merit but that of generalizing. ^c

ART. VII.—*Essay on the Classification of Parasitic Hymenoptera, &c.* By A. H. HALIDAY, ESQ. M. A.

(Continued from Vol. I. page 491.)

Of the Ichneumones of the Second Line, (Ichneumones adsciti, Essenbeck.)

Subgen I.—APHIDIUS.

Aphidius. *Essenbeck.* Fam. II.

Areola disci antica et cubitalis interior confluentes : stigma trigonum : abdomen lanceolatum petiolatum vel subpetiolatum : valvula ventralis inermis : antennarum articulorum numerus varius mari auctus : palpi varii.

Areola magna irregularis disci fere ut in *Ichneumonidibus genuinis* sita est, a cubitali exteriori sæpius equidem vix apice discreta ; mox etiam limites posticè sensim oblitterati evanescent in aliis, areolâ ut in *Trioxei* penitus effusâ : antennarum vero norma in singulis speciebus non adeo mutabilis ut ejus ratio prorsus negligenda sit, unius aut alterius articuli incrementum facillè patitur, vel etiam plurimum siquibus ille numerus viginti in universum superet : abdominis segmentum dorsale secundum impressione transversa bipartitum est, incisurâ ventrali secundâ ibidem pallido-perlucente ; inde fit quod abdomen nunquam totum nigrum extat. Quæ semel monuisse satis sit.

Species quum ingenti copia, tum characterum subtilitate vel etiam inconstantia implicitæ, discrimen curatius locorum atque victus ratione confirmatum postulant. Quæ modo ut attingam non tempus otium nec industria fiduciam præstitere. Satis habui nonnullas sectiones quarum ope forsitan ista multitudo commodius

^c Dans ce travail je n'ai d'autre mérite qui d'avoir generalisé.—*Marcel de Serres.*

digeri possit, indicibus saltem levibus demonstrasse, exemplis perpaucis vel singulis tantum ubique subjectis: in quæ (opus sane jejunum atque mancum) solertiorum animadversiones et addita-
menta sollicitè peto.

Tabula Synoptica Sectionum.

Aculeus	{	pallidus	{	3-articulati, {	thorace latius	FALCIGERI.			
		niger, palpi maxillares			4-articu- lati, labiales	{	thoracis latitudine	PINICOLÆ.	
							caput	dimidiatus	FAMILIARES.
							cubitus	brevissimus	EXAREOLATI.
								3-articulati, {	completæ
alæ	nullæ	APTERI.							
2-articulati			BREVIPALPES.						

SECTIO I.—FALCIGERI.

Caput vix thoracis latitudine rotundatum, postice magis coarctatum: palpi maxillares 4-, labiales 3-articulati: mesothoracis scutum læve glabrum: stigma mediocre, areola completa; abdomen *feminae* lanceolatum, *mari* brevius obovatum, petiolo lineari: aculeus pallidus cuspidatus nonnihil decurvus.

Sp. 21. A. *Crepidid*. Fem. *Petiolo valido ante medium dentato, aculeo decurvo inferne angulato, antennis 13-articulatis.* (Long. .09 — .12; alar. .16 — .20.)

Fem.—Luteo-ferrugineus, caput et thorax supra nigro-fusca: antennæ breviusculæ concolores scapo lutescentes: alæ fuscanae stigmate in vivis luteo in exsiccatis piceo, radice et squamulis fusco-piceis: pedes posteriores, nonnunquam antici quoque, femorum et tibiarum latere externo tarsisque fuscis, tibiis basi luteis: petiolus ante medium valide dentatus, fere ut in subgeneribus *Trionnyche* et *Monoctono*: segmenta intermedia abdominis lateribus vel dorso toto infuscata: aculeus fere ut in *Monoctono* effictus dorso infuscatus.—*Mas*, niger, antennæ concolores 16-articulatae: os lutescens: pedes obscuriores quam *feminae*, coxis posticis nigris: abdomen piceum, petioli basi apiceque, segmento secundo medio lutescentibus.

Variat.—Femina rarius antennis basi latius, pedibusque totis lutescentibus.

Habitat in Aphidibus *Crepidid Tectorum*.^a—(*Mus. Soc. Ent.*)

^a The Pucerons, containing this parasite, may be found adhering to the calyx-scales of the Succory Hawk-weed.

Sp. 22. *A. constrictus*. Fem. *Petiolo gracili medio noduloso, aculeo conico apice perparum deflexo, antennis 16-articulatis*. (Long. .09—.12; alar. .16—.20.)

Bracon constrictus. *Ess.* B. M. V. 28. Sp. 44. Tab. II. fig. 8.

Statura gracilior quam præcedentis.—*Fem.* Pallide flavus, capite et thorace supra fuscis, postpectore nonnunquam infuscato: antennæ graciles fuscae basi flavescentes, rarius 15-articulatæ: palpi prælongi: alæ hyalinæ nervis dilute piceis, stigmatе flavo, in exsiccatis pallido, radice et squamulis stramineis: apex femorum et tibiæ posteriorum latere externo, tarsorum undique fuscescens: petiolus gracilior, quam præcedenti haud dentatus: abdominis segmenta intermedia lateribus infuscata: aculeus longior et gracilior quam illi, apice summo tantum leviter decurvo.—*Mas*, caput et thorax nigra: palpi fusco-pallidi: antennæ 18-articulatæ nigrae: alarum stigma dilute piceum in vivis lutescens, radix et squamulæ piceæ: pedes luridi seu sordide lutescentes, posteriorum coxæ basi, femora, tibiæ medio tarsique apice infuscata; abdomen luridum fusco-nebulosum.

Habitat in Aphidibus *Aceris Pseudoplatani*,^b &c.—(*Mus. Soc. Ent.*)

SECTIO II.—PINICOLÆ.

Caput valde oblatum thorace latius, oculis extantibus, fronte et hypostomate latissimis: palpi maxillares 4-, labialis 3-articulati: antennæ *feminae* circiter 20-articulatæ, *mari* 25-articulatæ (*A. adscitus* autem cujus *mares* soli adsunt hunc numerum non accedit): mesothoracis scutum sulculis binis ordinariis parum profundis, nonnunquam alio intermedio abbreviato et obsoletiore impressum: alæ latæ stigmatе latissimo trigono, areola completa. Abomen *feminae* oblongo-lanceolatum apice compressum, *mari* brevius lineari-clavatum, petiolo postice dilatato: aculeus niger haud decurvus.

Ova ponunt in Aphides lanigeras *Coniferarum*, autumno obviæ.

Sp. 23. *A. pictus*. Fem. *Petiolo sensim incrassato aculeo arcuatim ascendente*. (Long. .17—.20; alar. .27.)

Fem. Luteus: antennæ, oculi, macula verticis, margo occipitis, tempora, lituræ tres scuti cum scutello, metathorax et petiolus

^b The Pucerons infested by it turn white, and among such winged individuals are occasionally found.

nigri: mesothoracis scutum nitidum subtilissimè punctulatum: alæ hyalinæ nervis fuscis, stigmatè fusco-ferrugineo, radice et squamulis lutescentibus: pedes antici immaculati, intermedii infuscati, postici fusci trochanteribus, femoribus subtus tibiisque basi et apice sordide luteis: petiolus granulatus opacus a basi inde fere æqualiter incrassatus, apice ipso vix latiore, tuberculis ante medium sitis inconspicuis: abdomen valde elongatum apice resupinatum, segmentis anterioribus dorsi infuscatis: aculeus gracilis arcuatus ascendens, metatarsi postici fere dimidiâ longitudine.—*Mas*, incognitus.

Habitat in *Pinu sylvestri* rarissimè.

Sp. 24. *A. pini*. Fem. *Petioli apice obconico-dilatato, stigmatè latissimo, aculeo brevi obtuso, antennis nigris*. (Long. .15—.18; alar. .27—.29.)

Fem. Niger, hypostomate et propectore luteo-pictis, mesothoracis scuto opaco punctulatissimo, vel luteo lituris tribus effusis nigris, vel limbo tantum lutescente: caput latissimum: stigma quoque adhuc latius quam in cæteris: alæ hyalinæ apice et substigmatè infumate, stigmatè nervisque fuscis, radice et squamulis stramineis: pedum colores obscuriores quam in præcedente, coxis intermediis insuper infuscatis: petiolus basi constrictus, medio tuberculatus, dehinc in apicem cito dilatatus inæqualis punctulatus: abdomen minus elongatum nigrum s. piceum, segmento secundo medio, nonnunquam incisuris anterioribus quoque pallidis: aculeus brevis latus obtusus, horizontalis aut suberectus.—*Mas*, niger segmenti secundi medio pallescente, pedum colore luteo minus effuso, coxis omnibus nigris: alæ candidæ stigmatè nervisque nigris, radice et squamulis piceo-stramineis: petiolus apice parum dilatatus.

Habitat in *Pinu sylvestri* et *Larice*. (*Mus. Soc. Ent.*)

Sp. 25. *A. infulatus*. Fem. *Petioli apice dilatato, aculeo brevi obtuso, antennis apice flavis*. (Long. .11—.16; alar. .21—.29.)

Fem. Caput luteum vertice et oculis nigris: antennæ nigræ scapo luteo, articulis extimis quinque aut sex flavis, ultimi apice fusco: thorax niger propectore luteo: mesothoracis scutum nitidum subtiliter vage punctulatum: alæ hyalinæ apice et substigmatè infumate, nervis fuscis, stigmatè fusco-ferrugineo, radice et squamulis stramineis: pedes lutei, posteriores late fusco-nebulosi,

coxæ posticæ fusco-maculatæ : abdomen luteum, segmentis anterioribus dorsi infuscatis, posticis immaculatis : petiolus fere qualis *A. pini*, apice tamen minus dilatatus, niger : aculeus ut in illo.—*Mas*. niger : antennæ quam in cognatis graciliores videntur, totæ nigrae : alæ hyalinæ stigmatate nervisque fuscis, radice et squamulis obscure stramineis : pedes antici straminei latere externo obscuriores, posteriores fusci trochanteribus fere totis, tibiis basi et apice tarsisque basi stramineis ; coxæ omnes nigrae : abdomen piceum plagâ mediâ lutescente : petiolus apice vix dilatatus.

Habitat in *Larice* rarius.—(*Mus. Soc. Ent.*)

Sp. 26. A. Laricis. Fem. *Petioli apice perparum dilatato, aculeo brevi cuspidato.* (Long. .11—.15 ; alar. .19—.24.)

Fem.—Niger : mesothoracis scutum nitidum subtiliter vage punctulatum : alæ hyalinæ apice et substigmatate infumatæ, stigmatate nervisque nigro-fuscis, radice et squamulis piceo-stramineis : pedes antici lutescentes latere externo infuscati, tarsis fuscis, postici fusci, trochanterum apice, tibiisque basi et apice sordide luteis ; coxæ omnes nigrae : abdominis segmentum secundum medio, rarius etiam incisuræ anteriores piceo-pallidæ : aculeus brevis erectus apice attenuatus.—*Mas*, alis candidis immaculatis et pedibus obscurioribus.

Habitat in *Larice* e cujus Aphidibus prodiit mihi.—(*Mus. Soc. Ent.*)

SECTIO III.—TRIVIALES.

Palpi maxillares 4-, labiales 3-articulati : caput thoracis latitudine : mesothoracis scutum læve glabrum : stigma mediocre : areola completa : abdomen *femineæ* oblongo-lanceolatum, *maris* brevius lineari-clavatum, petiolo fere lineari inæquali : aculeus brevis obtusus horizontalis niger.

Ova ponunt in Aphides genuinas (e sectione A. *Steph. Cat.*)

Sp. 27. A. Rosæ. Fem. *Luteus antennis, vertice thoraceque nigris, propectore luteo, abdomine bifarium fusco-maculato, pedibus posterioribus infuscatis, antennis 17-articulatis.* (Long. .12—.14 ; alar. .20—.23.)

Ichn. Aphidum . *De Geer*. II. 866. Tab. XXX. fig. 4—13.

Id. *Schr.* F. B. II. 307. No. 2146.

Id. *Geoffr.* II. 322. 4.

Fem.—Alæ hyalinæ nervis fuscis, stigmatè luteo, in exsiccatis piceo, radice et squamulis stramineis: pedis intermediî fusco-nebulosi, postici coxis et femoribus, tibiis medio tarsisque fuscis: petiolus fuscus apice lutescens: abdominis segmenta anteriora utrinque fusco-maculata.—Color luteus in hac specie clarior fere in croceum transit.—*Mas*, niger ore luteo, palpis piceo-pallidis: antennæ 20-articulatæ: alarum radix et squamulæ picescentes: pedes antici lutei fusco-lineati, posteriores picei trochanteribus et tibi- arum basi lutescentibus; coxæ omnes nigræ: abdomen piceum segmenti secundi medio et incisuris lutescentibus.

Habitat in Aphidibus, *Rosæ*.^c—(*Mus. Soc. Ent.*)

^c This is the species most frequently noticed by authors, being a familiar inhabitant of our gardens, where the male may be seen throughout the summer hovering over the rose-trees, or creeping under the leaves. His partner is of less roving habits, and will generally be found busy in providing for the establishment of her numerous progeny. Placed at her birth amid the myriads of Pucerons which encircle the young shoots of the rose, she has no dwelling to construct with artful industry, nor stores of food to collect by distant roving. With extended antennæ and wings, "shivering with desire," she paces leisurely among the defenceless herd, and as soon as she has selected one by a light touch of her antennæ, she stops short at about her own length from it, and rising on stiffened legs, bends her abdomen under her breast till the end of it projects beyond her mouth; then erecting her thorax by depressing the hinder-part, she simultaneously makes a lunge forward with the abdomen, which is then extraordinarily lengthened, and by a momentary touch, deposits an egg on the *under-side* of the Puceron, near its tail. The victim will sometimes kick and sprawl, so as to discompose her; but being anchored by its sucker plunged in the bark, can make no effectual attempt to elude the deadly weapon. Should it, however, be wandering at large and free to struggle, she shows great activity in traversing around it in the attitude of attack till she can take it in flank. The delicate sense of the antennæ seems to warn her where a germ has been already deposited, as she will pass by those which have been stung some days before; and I have never found more than a single grub in each individual. When all the interior of the Puceron is consumed, it will be found separate from its fellows, and motionless, usually on the upper side of a leaf, to which it is glued by some viscid exudation. It now appears distended, and of an opaque hazel or lighter tint. If opened, the full-fed grub of the *Aphidius* will be discovered doubled up, and filling the cavity, its head being next the tail of the Puceron. In a short time the parts of the perfect insect are developed in a quiescent state and in the same position, the integuments of the grub being shrivelled up below it in black grains. Like *Cynips* and *Callinome* it spins no cocoon for its transformation, being adequately protected by the indurated skin of its victim. A few days are sufficient to give consistence to its parts; and while the new risen sun is yet glistening in the early dews, the winged insect, by a push of its head, detaches the latter rings of its case, which separate in the form of a circular lid, often springing back to close the orifice after the inhabitant has gone forth, born in the maturity of her energies and instincts, to renew the circle of existence. Sometimes, indeed, a different occupant will issue from its dark chamber, as several still minuter parasites of the present order (*Megaspilus Carpenteri*, Curt. E. B. 249. *Cynips*

Sp. 28. *A. lutescens*. Fem. *Luteus oculis et antennis nigris, vertice, lituris tribus scuti, scutello, metathorace et petiolo fuscis*. (Long. .13; alar. .24.)

Fem.—Statura et magnitudo *A. Rosæ*: antennarum scapus lutescens: alæ ut in illo: pedes immaculati: abdominis segmenta anteriora dorso transversim infuscata.^d

Sp. 29. *A. Avenæ*. Fem. *Niger pedibus anticis et geniculis rufo-piceis, stigmatè anoque ferrugineis, antennis 17-, 18-articulatis*. (Long. .12—15; alar. .20—24.)

Bracon picipes . *Ess. B. M. V.* 28. Sp. 42?

Aphidius picipes . *Ess. Act. Acad.*?

Fem.—Os lutescens, palpi subfusci: alæ hyalinæ stigmatè rufo-ferrugineo, in exsiccatis piceo, nervis fuscis, radice et squamulis piceis: pedes nigro-picei, antichi femoribus tibiisque rufo-piceis aut lutescentibus, latere externo fusco-lineatis, posteriores trochanterum apice tibiisque basi et apice concoloribus: abdomen nigro-piceum segmenti secundi medio pallescente, ano rufo-ferrugineo.—*Mas*, palpi nigro-picei: antennæ 20—22-articulatæ: pedes obscuriores: anus haud ferrugineus: *A. Rosæ* ♂ simillimus.

Habitat in Aphidibus *Avenæ* passim omnium vulgatissimus.^e—
(*Mus. Soc. Ent.*)

Aphidum, Geoffr. II. 305. 26. *Cyrtogaster vulgaris*, Walker, Ent. Mag. I. 382, &c.) select for the nidus of their progeny those Pucerons within which the grub of the *Aphidius*, or of its fellow-devourer, *Cynips erythrocephala*, (Jur.) is silently gorging, and the destroyer becomes the destroyed in turn. Some of these last (*Coruna clavata*, Walk. Ent. Mag. I. p. 386), not content with the covering which protects the *Aphidius* to its final change, when they are full fed leave the cavity, and spin a white silky web between the belly of the Puceron and the leaf, and in this undergo their transformation. Max. Spinola has given occasion to some confusion, by appropriating to a species of *Microgaster*, synonyms and observations which belong to insects of the present genus. The accurate account of their habits, long since given by Frisch, Cestoni (in Vallisnieri's works), and De Geer, might be supposed sufficient to have cleared up this mistake which has been pretty generally followed, the Linnæan *Ich. Aphidum* being, however, replaced in its proper station by Fallen and Curtis.—On this account, I have ventured to reiterate the detail from my own observations. The Pucerons, to which these relate, abound on almost every rose of our gardens, except the sweet-briar, which nourishes a distinct species, and its peculiar parasite.

^d I should have been inclined to consider this as an immature variety of *A. Rosæ*; but that individuals of this last have assumed their characteristic tints before they are disclosed from the puparium.

^e I have observed the proceedings of this species, which are precisely similar to those of *A. Rosæ*; the Pucerons pierced by it are found adhering to the grains of oats, the flower-heads of *Hypochaeris radicata*, &c.

Sp. 30. A. Ervi. Fem. *Capite thoraceque nigris, antenarum scapo, hypostomate, collo pedibusque luteis, antennis longis 20-articulatis.* (Long. .14—.17; alar. .22—.26.)

Statura gracilior quam præcedentibus, antennis, palpis et pedibus longioribus.—*Fem.* antennæ 19—21-articulatæ: palpi lutei: alæ hyalinæ seu fumato-hyalinæ, stigmatè luteo, in exsiccatis piceo, nervis fusco-ferrugineis, radice et squamulis piceo-stramineis: unguës antici et tarsi posteriores apice fusci, coxæ posticæ fusco maculatæ: abdomen piceum segmento secundo medio, reliquis margine, posticis sæpe totis lutescentibus: petiolus quam in præcedentibus gracilior et apice nonnihil latior.—Color luteus hujus in ferrugineum transit.—*Mas*, niger ore luteo, palpis fuscis: antennæ circiter 23-articulatæ nigræ: coxæ posteriores, femora intermedia basi tantum, postica cum tibiis latere externo tarsique fere toti fusci: abdomen piceum segmenti secundi medio lutescente.

Variat femina multimodis, nonnunquam coloribus obscurioribus *mari* descripto similis; hic vero pedibus fere totis palpisque nigris.

Habitat in Aphidibus *Ervi* et *Trifolii* passim copiosè.—(*Mus. Soc. Ent.*)

Sp. 31. A. Urticæ. Fem. *Pallide flavus, capite thoraceque supra et abdominis vittâ dorsali interruptâ fuscis, antennis 18-articulatis.* (Long. .15; alar. .23.)

Fem.—Statura valde gracilis: antennæ graciles ferruginæ basi late flavicantes: thorax dorsum fuscum aut ferrugineum scutello dilutiore: alæ hyalinæ stigmatè nervisque dilute fuscis, radice et squamulis pallide stramineis: abdomen elongatum, postice valde compressum et carinatum, segmentis anterioribus dorso transversim infuscatis: petiolus gracilis fuscescens.

Habitat in *Urticâ* rarius.—(*Mus. Soc. Ent.*)

SECTIO IV.—FAMILIARES.

Antennarum et palporum labialium articuli pauciores discrimen inter hanc et præcedentem sectionem ægrè præstant. Reliqui characteres in utramque satis conveniunt.

Sp. 32. A. Asteris. Fem. *Capite thoraceque nigris hypostomate, propectore, pedibus anticis et geniculis, abdominisque basi et apice luteis, antennis 15-articulatis.* (Long. .11; alar. .20.)

Fem.—Pictura fere qualis *A. Rosæ*, coloribus autem sordidioribus : palpi apice picescentes : antennæ graciliores quam in sequentibus, totæ nigræ : alæ hyalinæ stigmatate sordide flavo in exsiccatis piceo, nervis fuscis, radice et squamulis piceo-stramineis : pedes sordide flavi, femora latere supero, postica fere tota, tibiæ posteriores basi demtâ tarsique fere toti fusci : coxæ posteriores nigræ : abdomen sordidè flavum segmentis intermediis infuscatis, secundi medio flavescente.—*Mas*, niger ore sordide lutescente ; antennæ 18-articulatæ : pedes picei anticorum femoribus tibiisque subtus, trochanterum apice et geniculis omnibus ferrugineis : abdomen piceum petiolo flavo fuscoque, segmenti secundi medio flavescente.

Habitat in Aphidibus *Asteris Tripolii* copiosè.—(*Mus. Soc. Ent.*)

Sp. 33. *A. Ribis*. *Fem. Capite thoraceque fuscis, antennis basi, hypostomate, collo, pedibus, abdominisque basi et apice flavis, pedibus posterioribus indistincte annulatis, antennis 15-articulatis.* (Long. .07—1 ; alar. .14—.19.)

Fem. Caput et thorax fusca aut nigro-fusca, pectus dilutius : antennæ fuscae scapo et pedicello flavis : alæ hyalinæ stigmatate flavo, in exsiccatis picescente, nervis dilute fuscis, radice et squamulis piceo-stramineis : pedes flavi femorum apice supra, tibiis medio tarsisque apice subinfuscatis : abdomen flavum segmento secundo basi et apice, sequentibus dorso infuscatis, ano immaculato.

Prodiit mihi ex Aphidibus *Ribis rubræ*. †—(*Mus. Soc. Ent.*)

Sp. 34. *A. Cirsii*. *Fem. Capite thoraceque nigris aut nigro-fuscis, antennarum basi, collo, pedibus abdominisque basi flavo-ferrugineis, antennis circiter 15-articulatis.* (Long. .08—.11 ; alar. .16—.19.)

Ichneumon Aphidum. *L. F. S. 1643 ?*

Fem.—Antennæ 15-, 16-, in unico tantum 17-articulatæ, basi obscure flavescentes : ungues fusci, coxæ posticæ quoque fusco-maculatæ : abdomen piceum apice obscurius, petiolo flavo-ferrugineo, segmento secundo basi et medio flavescente.

Variat quoque pedibus posterioribus et petiolo fusco-nebulosis.

Habitat in *Cirsio arvensi* non infrequens. ‡ (*Mus. Soc. Ent.*)

† The Pucerons, which inhabit the puckered leaves of the currant, when infested by this species, acquire a peculiar pearly gloss, as remarked by Réaumur, Tom. III. Mem. IX. p. 286.

‡ I have not obtained this species out of the Pucerons of the thistle which it

Sp. 35. A. Eglanteriæ. Fem. *Niger abdominis basi flavo-ferruginea, pedibus concoloribus fusco variis, antennis circiter 15-articulatis.* (Long. .07—.1; alar. .14—.18.)

Fem.—Os palpique picei: antennæ 14-, 15-articulatæ nigræ: collum ferrugineum aut thoraci concolor: femora latere externo, tibiæ medio, tarsi apice, plerunque etiam coxæ posticæ infuscatae: abdomen piceum petiolo flavo-ferrugineo rarius infuscato, segmenti secundo medio et incisuris anterioribus flavescentibus.—*Mas*, niger pedibus fuscis, anticis subtus et geniculis omnibus lutescentibus: abdomen obscurius quam *feminæ*.

Prodiit mihi ex Aphidibus *Rosæ Eglanteriæ*.^h—(*Mus. Soc. Ent.*)

Sp. 36. A. Salicis. Fem. *Niger, pedibus anticis et geniculis ferrugineis, abdominis liturâ pallescente, antennis 13-articulatis.* (Long. .08—.1; alar. .15—.18.)

Fem.—Os sordide lutescens: antennæ capite cum thorace parum longiores, apice subcrassiores: alæ hyalinæ stigmatibus lutescentibus, in exsiccatis piceo, nervis dilutius fuscis: pedes anteriores obscure ferruginei, intermediarum femora basi, tibiæ medio tarsique fusci, postici fusci trochanteribus et tibiis basi apiceque ferrugineis: coxæ omnes nigræ: abdomen segmenti secundi medio et incisuris, vel plagâ media effusa pallescente: petiolus fuscus aut piceus.—*Mas*, color pedum et abdominis sordidior: antennæ 15-, 16-, rarius etiam 17-articulatæ: alæ albicantes.

Habitat in *Salice* autumno exeunte frequens; e cujus Aphidibus quoque prodiit mihi, Junio mense. ⁱ (*Mus. Soc. Ent.*)

Adsunt individua minora in flosculis *Dauci Carotæ* copiosè lecta vix propriæ speciei.^k

SECTIO V.—EXAREOLATI.

Palpi maxillares 4-, labiales 2-articulati: stigma latum: areola penitus effusa: cubitus abruptus, stigmatis vix dimidiâ longi-

frequens; it would be remarkable that a species so closely resembling the preceding and the following, should be attached to such dissimilar Pucerons.

^h These Pucerons become glossy white, fixing themselves on the under-side of the leaves.

ⁱ The wounded Pucerons of willows usually retire to the points of the leaves, and become hazel or light-brown. Of the multitudes thus infested, the majority fall victims not to the present insect, but to two minute species of *Cynips* (*C. fulviceps*, Curt. and another): the former of these, with some allied species, destroys also the Pucerons of cow-parsnip and other plants.

^k There are several still smaller species closely allied to this, as *A. Feniculi*, *A. viminalis*, &c.

tudine: reliqui characteres cum proxime præcedentibus conveniunt; aculeo nonnihil difformi.

Sp. 37. *A. leucopterus*. Fem. *Ater nitidus alis albis, pedibus pallido-annulatis, antennis 15-articulatis*. (Long. .085; alar. .16.)

Fem.—Antennæ graciles nigræ: alæ albo-hyalinæ stigmatè flavo: pedes antici lutescentes, posteriores nigro-picei trochanteribus basique tibiæ et tarsorum pallidis: abdomen nigro-piceum plagâ media dilutiore: aculeus basi supra angulatus, apice acuminatus.—*Mas*, antennæ 16-articulatæ: alæ candidæ: pedes omnes nigro-picei pallido-annulati: abdomen nigrum segmenti secundi medio obsoletius pallescente.

Habitat in Coniferis, autumno rarissimè.

SECTIO VI.—SEROTINI.¹

A congeneribus sectionis quartæ palporum structurâ præcipue discreti. Palpi breves maxillares 3-articulati articulo penultimo crassiore, labiales 2-articulati.—Species nonnullæ minores tam ex hac quam ex illa sectione antennis brevibus pauci-articulatis et capite crassiore se efferunt.—*A. ambiguus*, No. 42, propter formam petioli et aculei et areolam penitus effusam a reliquis discrepat.

Sp. 38. *A. Matricariæ*. Fem. *Niger pedibus anticis, geniculis abdominisque basi ferrugineis, antennis 14-articulatis*. (Long. .07—.09; alar. .14—.18.)

Fem.—Palpi fuscii: antennæ filiformes nigræ vel basi picescentes: alæ hyalinæ stigmatè dilute piceo, nervis fuscis: pedes ferruginei, antici supra fusco lineati, posteriorum coxæ, femora, tibiæ medio tarsique apice fuscii: abdomen nigro-fuscum petiolo ferrugineo, segmento secundo medio pallescente: aculeus brevis obtusus.

Variat collo ferrugineo aut nigro, pedum quoque fuscèdine plus minusve effusâ.

Habitat in Pyrethro inodoro et maritimo minus frequens. (*Mus. Soc. Ent.*)

¹ To this section belong also *A. pallidinotus*, (Curt.) and several other species nearly allied to *A. Matricariæ* and *A. fumatus* respectively.

Sp. 39. A. Arundinis. Fem. *Niger aut fuscus antennis basi, ore, collo, pedibus et abdomine antice flavo-ferrugineis, antennis 14-articulatis.* (Long. .08; alar. .16.)

Fem.—Palpi flavo-ferruginei: antennæ nonnunquam 15-articulatæ: alæ hyalinæ stigmatè dilutè piceo s. pallido, nervis plerisque decoloribus et areolâ vix designatâ, radice et squamulis stramineis: aculeus brevis obtusus:—*Adsunt* individua forsitan immatura nigredine in colorem rufo-piceum mutatâ, scutelloque rufescente, vix specie diversa.

Habitat in *Arundinetis* autumno parum frequens. (*Mus. Soc. Ent.*)

Sp. 40. A. fumatus. Mas. *Piceo niger geniculis tarsisque pallidis, abdomine spathulato lurido, alis fuscans, areola indistincta, antennis crassiusculis 16-articulatis.* (Long. .07; alar. .14.)

Mas.—*Monoctono Caricis* ♂ non dissimilis: palpi brevissimi: alæ obscuræ stigmatè angusto, cubito leniter arcuato, areola postice indistincta aut effusa: abdomen spathulato dilatatum, petiolo crasso lineari.

Habitat in pratis humidis *Ranunculo acris* obsitis frequens. (*Mus. Soc. Ent.*)

Sp. 41. A. exiguus. Fem. *Niger geniculis abdomineque antice pallidis, antennis brevibus 13-articulatis.* Long. .07; alar. .13.)

Fem.—Os ochreum: antennæ capite cum thorace parum longiores, apice subcrassiores: alæ obscure hyalinæ stigmatè piceo-pallido, areola indistincta: pedes picei geniculis pallidis: abdomen basi et medio pallescens, lateribus et postice piceum: petiolus fere linearis apice sensim paulo crassior, flavidus: aculeus obtusus. *Anne conjunx præcedentis?*

Sp. 42. A. ambiguus. Fem. *Niger abdominis basi pedibusque pallidis, posterioribus fusco-cingulatis, abdomine subsessili, aculeo cuspidato, areolâ effusâ antennis 13-articulatis.* (Long. .07; alar. .14.)

Fem.—Antennæ filiformes nigræ, palpique longiores quam præcedenti: alæ hyalinæ stigmatè piceo pallido: pedes flavo-pallidi unguiculis et coxis, posteriorum femoribus et tibiis medio, tarsisque summo apice fuscis: abdomen breviter ovato-lanceolatum,

antice pallescens postice piceum, segmento primo brevi cyathiformi lateribus angulato.

Habitat cum præcedentibus rarius.—(*Mus. Soc. Ent.*)

SECTIO VII.—APTERI.

A præcedentibus illo caractere unicè distinguendi.

Sp. 43. A. Ehippium. Fem. *Flavo-ferrugineus capite, metathorace et abdomine posticè fuscis, antennis 14-articulatis.* (Long. .06—.08.)

Fem.—Antennæ fuscæ basi flavescens: abdomen fuscum basi pallescens: petiolus gracilis linearis flavus aut ferrugineus: aculeus obtusus niger.—*Variat* coxis posterioribus, femoribus tibiisque medio subinfuscatis.

Habitat ——— rarius.—(*Mus. Soc. Ent.*)

SECTIO VIII.—BREVIPALPES.

Palpi multo breviores quam in ceteris *Ichneumonibus*; maxillares 2-articulati subclavati, labiales ex-articulati: mesothoracis scutum læve glabrum: alæ angustæ stigmatè tenui, areolæ nervo postico-exteriore basi oblitterato, dehinc ad apicem areolæ perbreve spatium refecto; quæ nota satis singularis oculatissimum Neesium ab Essenbeck nequaquam effugerat.

Sp. 44. A. dissolutus. Fem. *Niger nitidus abdominis basi, pedibusque pallidis, posterioribus fusco variis, alis denigratis, antennis crassis 16-articulatis.* (Long. .07—.09; alar. .15—.18.)

Bracon dissolutus . *Ess. B. M. V. 29.* Sp. 46.

Fem.—Antennæ nigræ articulo tertio pallescente: alæ basi dilutiores: pedes antici fere toti, posteriorum coxæ, trochanteres, genua tarsisque pallidè flavi: abdomen breviter ovato-lanceolatum, piceum antice pallescens, segmento primo brevi cyathiformi (seu basi constricto dehinc dilatato fere rectangulo): aculeus subexertus niger obtusus.—*Mas.* antennæ longiores totæ nigræ, articulis magis discretis (in unico illo quem vidi 16-articulatæ tantum): alæ dilutiores quam *femine*: femora et tibiæ anticae latere externo infuscata: pedes posteriores fusci, genibus tarsis-

que lutescentibus: abdomen piceum basi sordidius lutescens, petiolo minus dilatato.

Habitat in pratis *Ranunculo acris* obsitis rarissimè.—(*Mus. Soc. Ent.*)

Restant adhuc quatuor species olim descriptæ,

A. Aparines *Ichn. Aphidiphagus*. *Schr. F. B.* II. 2147.

A. Dipsaci *Schr. F. B.* II. 2149.

A. infirmus *Ess. B. M.* V. 28. Sp. 43.

A. melanocephalus . *Ess. B. M.* V. 29. Sp. 45.

mihî incognitæ, de quarum loco propterea nil temere proferre placet.

Note.—As the variations of the palpi in this genus are not always indicated by any evident distinction in other external characters, I have sought, where an opportunity offered, to obtain a view of them in recent specimens; but in many cases have been obliged to content myself with relaxing the parts. As, however, such minute characters may be easily mistaken on a superficial view, I wish to enumerate the species whose trophi were submitted to actual dissection:—Nos. 3, 5, 7, 8, 9, 10, 11, 17, 21, 22, 24, 27, 29, 30, 32, 34, 36, 37, 39, 40, 43, and 44.

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Nov. 22, 1833.

ART. VIII.—*Notice of Entomological Works.*

1. *British Entomology; by John Curtis, F. L. S. &c.*—Nos. 117—120.—Pl. 466. *Elophorus fennicus* (Coleoptera Helophoridae); 467. *Aspilates gilvaria*, (Lepidoptera Phalaenidae); 468. *Psithyrus rupestris*, (Hymenoptera Apidae). *Psithyrus* of Dahlbom and Curtis falls, because *Psithyrus* is a name applied by Hübner to a genus of *Sphingidae*. This genus of bees is of very singular economy; like the cuckoo, it lays its eggs in a nest not its own: a circumstance unusual among bees. The characters as laid down by Mr. Curtis do not, we think, sufficiently distinguish it from *Bombus*. Pl. 469. *Barborus hamatus*, (Diptera Muscidae); 470. *Hister 4-maculatus*, (Coleoptera Histeridae). This is the *Hister sinuatus* of