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TRANSACTIONS

OF THE

LINNEAN SOCIETY.

I. *The Genus Apion of Herbst's Natursystem considered, its Characters laid down, and many of the Species described. By the Rev. William Kirby, F.L.S.*

Read June 4, 1805.

THERE are certain tribes of insects, the species of which are so slightly marked by any apparent difference of size, shape, or colour, that, for want of sufficient examination, many are set aside as mere varieties, which, when they are minutely inspected, exhibit characters very strong and discriminative. Amongst these there are none more liable to be confounded, or that occasion more trouble to the entomologist, who wishes to be accurately acquainted with them, than those minute Weevils, which, in Herbst's *Natursystem*, under the name of *Apion*, are considered as a separate genus from *Curculio**: they constitute Mr. Marsham's second section of his first division of his first family of that genus†, and are arranged by Fabricius, and after him

* Tom. vii. *p.* 100. tab. 102, 103. *and Q, fig.* 6. 7. 8.

† Viz. A. a. * *. Longirostres *Antennis integris femoribus simplicibus abdomine ovato acuto, rostro filiformi, thorace teretiusculo.* Nudiusculi.

by Latreille*, Paykull, Panzer, &c. under *Attelabus*, from which, however, they essentially differ.

Every collector must have observed the insects of which I am speaking, for they abound every where upon plants; but, from the extreme similarity of the species to each other, in all the particulars mentioned above, most would be disposed to confound them together. There are, however, a great many distinct species of them; of which, although a considerable number have already been described, many still remain that have hitherto escaped notice.

Having, for some time, been accustomed to examine these minute insects with close attention, I found myself possessed of several nondescript British species; and, in addition to these, my collection has been enriched by the liberality of an ingenious and learned correspondent, major Gyllenhal, (to whom Paykull was under very great obligations) with several specimens from Sweden, which have enabled me to ascertain many of those described by Fabricius, Paykull, and others, concerning which I was before in doubt. Add to this the happy opportunity, indulged to me by the kindness of our President, of inspecting the Linnean Cabinet. All these circumstances induce me to

* I cannot mention the name of this learned entomologist and not notice the remarkable coincidence which, without any previous communication between us upon the subject, is observable between his excellent *Division des Abeilles* (*Hist. Nat. des Fourmis, p.* 401—38.) and my Monograph upon the same genus. That both of us, with little variation, should fix upon the same general divisions and subdivisions, is a strong proof that our only aim has been to trace the labyrinth of nature; and that, as far as our researches have been carried, we have succeeded in our attempt: or, to use the words of this gentleman upon the occasion, "*Une telle ressemblance dans le fruit des nos recherches prouve évidemment que la Nature, qui est une, a été notre guide.*" (*Hist. Nat. gen. et partic. des Crustacés et des Insectes,* tom. iii. *p.* 369—371. *note* 1. where see our respective methods compared.)

hope

hope that I may render some small service to entomology, if I offer to the Linnean Society a few observations upon this difficult genus or family, accompanied by more elaborate descriptions than have yet been given of such of the species as I am acquainted with; for it has been the fate of the smaller and less conspicuous insects, to be described, generally speaking, with less care and minuteness than the larger, or those that are distinguished by more prominent features; whereas, in fact, the former, that they may not be confounded with their affinities, stand most in need of having all their peculiarities noticed: on this account, and to prevent future mistakes, I have described anew all the species that have come under my eye.

In general, these insects are distinguished by a slender subcylindrical rostrum; which, when unemployed, is not pressed close to the breast between the fore-legs, as is the case with many genuine curculios*, but stretches out from the head, or is porrect (if I may employ such a term) and arching downwards: their antennæ are not broken, as in the cognate genus just mentioned, but entire; and terminate in a lanceolate knob, consisting of three closely joined and scarcely visible articulations; the thorax inclines to the figure of a truncate cone, but now and then it is rather spherical, and often nearly cylindrical; and the abdomen is more or less ovate; so that the whole insect, in shape, bears considerable resemblance to a pear, the rostrum being regarded as the stalk.

More particularly, the species afford to the describer the following circumstances for distinctive characters:—

The *Rostrum* is either shorter than the head and thorax taken together, of the same length, or longer; and with respect to this circumstance I term it—*Rostrum brevius, mediocre, longius:* its

* e. g. Rhynchænus *Fabr. Syst. Eleuth.* ii.

thickness or tenuity will furnish other notes of difference, and whether either of these is partial or general.

The *Antennæ*, also, compared with the rostrum, are *breviores*, *mediocres*, *longiores*; and their insertion is either behind the apex, at the middle, behind the middle, or at the base of the rostrum; on which account they may be denominated *anticæ*, *mediæ*, *posticæ*.

The *Head*. The space between the eyes affords some very good, though very minute, characters, hitherto unnoticed, except by Herbst, and by him only with respect to a single species*: it is either punctulate, rugulose, canaliculate, or striate; and, besides this, it is now and then hollowed out into a concavity†.

The *Eyes* are sometimes prominent, at others subimmersed.

The *Trunk* often forms nearly a perfect cylinder, but more commonly a truncate cone; now and then it approaches to a spherical figure; it is usually rough, with very minute impressed points; and, besides, it is often distinguished by a dorsal channel or furrow running nearly its whole length; or an abbreviate one; or a larger excavate point just above the scutellum.

The *Abdomen*, covered by the elytra, is either globose, obcuneiform, ovate, obovate, oval, or oblong.

The *Elytra* are either furrowed or striate; and the furrows, or *striæ*, are punctate or impunctate, with interstices either plane or convex.

Add to all these circumstances pubescence and the variations of colour; and there will appear no want of characters to discriminate these little insects from each other.

* Viz. *Apion sulcifrons*, tom. vii. *p.* 132. *n.* 25. tab. 103. fig. 12—*M.*

† N. B. To see these minute characters, it is often requisite to use two of the glasses of a pocket microscope.

Having

Having mentioned the peculiarities which most strikingly characterize the species, I shall next inquire with what propriety they may be regarded as belonging to a distinct genus.

Linné considered all insects furnished with antennæ seated upon a rostrum (a few of his *Attelabi* excepted) as belonging to one genus; but whoever studies the species attentively, which will arrange under his *Curculio*, will be convinced that this circumstance is characteristic of a section of the order of *Coleoptera*, rather than of a natural genus. To name no other part, the antennæ, confessedly of the greatest importance in determining the genus of insects, vary surprisingly in this numerous tribe: thus in *Calandra*, *Rhynchænus*, *Lixus*, *Cossonus*, and *Curculio*, of Fabricius's *Systema Eleutheratorum*, and in the insects we are now considering, they are subcapitate or terminate in a knob: in *Brentus*, of the same work, they are moniliform: in *Anthribus* and the genuine *Attelabi*, they are subclavate, with a distinctly jointed clava: in *Rhinomacer* they are either setaceous or filiform; and in *Brachycerus* they grow gradually larger from the base to the apex. Great differences are likewise observable in those that have capitate antennæ; in some the terminating knob is jointed, for the most part transversely, with an acute summit; in others it is solid; of this description I remember noticing a very singular one in the cabinet of the ingenious Mr. Donovan, in which this part, compared with the size of the insect, was immensely large, transverse, and oblong*. Another and striking difference takes place in antennæ of this description: in those which I consider as genuine curculios, the first joint is nearly as long as

* In *C. Palmarum*, Linn. the knob is of a singular shape; it is solid, calceoliform, transverse, and connected with the stalk at one end: the upper part at first sight appears truncate, but if it be closely examined it will be found prismatic, or, in Linné's words, *Antennæ apice quasi bifariam truncatæ*.

all

all the rest put together, with which it forms an angle, so as to make the antennæ wear the appearance of being broken; while in the genus of which I am now treating the first joint is not so remarkably longer than the rest, and is always in the same line with them.

If these circumstances be allowed their due weight, we shall feel disposed, I think, to give Fabricius credit for great discernment, when he considered the Linnean character of *Curculio* as indicating the division of an order rather than a genus: whether he has with equal propriety placed the little insects in question in his genus *Attelabus* must be our next inquiry.

Attelabus of Linné is an intermixture of genera scarcely, if at all, related to each other, concerning which that great father of Natural History himself observes: *Genus* Attelabi *etiamnum inter obscura est nec aptius reperi**. Fabricius, with great judgment, has excluded *At. surinamensis, melanurus, formicarius, sipylus, apiarius, mollis, ceramboides* and *buprestoides*, which certainly have no connection with it, and in their place introduced all the curculios which constitute Mr. Marsham's two first families†, and these are evidently more nearly allied to *At. Coryli, Avellanæ, curculionoides*, &c. than those just mentioned: still, however, *At. Coryli* and *Avellanæ* (which are certainly distinct species, though Fabricius has united them) differ essentially not only from *Curculio Betulæ, Populi, Bacchus*, &c. Linn., but also from *At. curculionoides* and *Betulæ*; so that there seems to be some reason for Herbst's making a distinct genus, as he does, under the name of *Rynchites*, of many of the Fabrician *Attelabi*. In these insects, I mean *At. Coryli* and *Avellanæ*, the clava of the antennæ is not so distinctly jointed, the head is elongate, nearly obconical, and connected with the thorax by a narrow neck; the

* *Syst. Nat. Ed.* 12. *p.* 619. *Note.* † *Viz.* A. a. *. **

eyes

eyes are very prominent; the trunk is obversely funnel-shaped; and the tibiæ, at the apex, are armed with a single crooked spine: on the contrary, in *At. Betulæ*, *curculionoides*, and the curculios of Mr. Marsham's first family, the antennæ have a subperfoliate clava with very distinct joints; the head has no separate neck, nor is it elongate or obconical; the trunk, in most, is subglobose; and the apex of the tibiæ without spines: but in *At. curculionoides*, which seems intermediate between *At. Coryli* and *Betulæ*, *Populi*, &c. the trunk inclines rather to a square form; and the apex of the tibiæ is armed with two spines.

But these insects are all more nearly related to each other than they are to the tribe of which I am now speaking, although Fabricius and most others have confounded them together. Mr. Marsham and Herbst seem to be the only entomologists whose penetration has detected the difference between them*. I shall therefore

* The ingenious author of *Entomologie Helvétique*, whose work I had not had an opportunity of consulting when this passage was written, has separated the species that belong to Mr. Marsham's first and second families of *Curculio* from *Attelabus*, Fabr. and given them, after Geoffroy, as a distinct genus (*Rhinomacer*) which he has divided into three families. The first contains the greater proportion of the species of *Apion*; the second, those that have a rostrum attenuate at the apex, like *Ap. Craccæ*; and the third, the species that constitute Mr. Marsham's first family; e. g. *Curc. Populi*, *Bacchus*, &c.

M. Latreille also, in the work before quoted, (of which I had then only seen those sheets which relate to my Monograph upon *Apis*, Linn.) divides *Attelabus*, Fabr. into two families, each of which he further subdivides into two sections. Thus,

"Genre. ATTELABE. Antennes de onze articles, dont les derniers forment une massue perfoliée. Pénultième article des tarses bilobé.

"* Jambes antérieures terminées par une ou deux fortes épines. Trompe très courte, épaisse, rétrécie au milieu.

"† Tête alongée, rétrécie et dégagée postérieurement. Corselet tubulé en devant, presque conique, recevant le cou qui est en forme de genou. Exemple. *Attelabus Coryli*, Linn.

"†† Tête

therefore compare them with the Fabrician character of *Attelabus*, and point out in what particulars they vary from it*.

With respect to the *Instrumenta cibaria*, it is doubtful whether Fabricius, or any other entomologist, ever saw distinctly those of the insects of which I am speaking; the rostrum, in which they are hidden, is so very slender and minute, that it is scarcely possible to extricate them from it, at least my endeavours to do this, which have been employed upon some of the largest species I know, have not as yet been successful: the maxillæ (*Mandibulæ*, Fabr.) when it accidentally happens that one is exerted, may just be discerned under a strong magnifier; they appear to be acute and incurved, and I believe there may be four palpi; but their shape and number of joints I have not been able to ascertain, therefore I cannot say whether they are filiform or not, or the valvulæ (*Maxillæ*, Fabr.) bifid. The remaining particulars (viz. "*Rostrum elongatum incurvum, Antennæ extrorsum crassiores,*" if we consult his *Essential Character* in the scale of genera, or "*Antennæ moniliformes rostro insidentes,*" which is part of his *Artificial Character* at the head of the genus) we can more readily compare with the characters which our insects exhibit. The

" †† Tête sans rétrécissement postérieur, s'enfonçant plus ou moins dans le corselet, qui est presque carré ou trapézoïde. Ex. *Att. curculionoides*, Linn.

" ** Jambes antérieures sans épine remarquable à leur extrémité.

" † Trompe élargie au bout. Antennes insérées plus en dessus qu'en dessous. Abdomen carré. Ex. *Curc. Bacchus*, Linn.

" †† Trompe plus étroite au bout, ou n'étant pas plus large qu'ailleurs. Antennes insérées plus en dessous qu'en dessus. Abdomen presque globuleux. Ex. *Attel. Craccæ, flavipes, frumentarius*, F."

Hist. Nat. gen. et part. des Crustacés et des Insectes, tom. iii. *p.* 196, 197.

* CHAR. ESSENT. *Rostrum* elongatum, incurvum. *Maxilla* bifida. *Antennæ* extrorsum crassiores. *Syst. Eleuth.* i. xi.

CHAR. ARTIFIC. *Palpi* filiformes. *Maxilla* bifida. *Antennæ* moniliformes, rostro insidentes.

terms

terms by which he has defined the rostrum apply better to them than they do to the true *Attelabi*, *Att. Coryli*, &c. (whose rostrum cannot, with propriety, be called either *elongatum* or *incurvum*); but *antennæ extrorsum crassiores* will by no means agree with the antennæ of *Apion*, which terminate in a little head or knob, although it may suit *Attelabus* tolerably well, in which the knob is not so distinct; yet Linné's term for the antennæ of *Curculio* (*subclavatæ*) would better define them. The term *moniliformes*, if applied only to the stalk of the antennæ, appears to be tolerably accurate; yet even in this part the joints, if very closely examined, will be found somewhat conical, or subturbinate, rather than spherical. Besides these differences, the rostrum of our insects is not dilated, as in the other *Attelabi*, at the apex; the trunk is not spherical; and the elytra, taken together, are rarely, if ever, quadrangular. The *Attelabi* likewise, for the most part, inhabit trees and the taller shrubs; whereas herbs and under-shrubs, and more particularly the class *Diadelphia*, are the most usual food of the species of *Apion*.

Whether it be advisable to separate this genus from *Curculio* will admit of another question; but, since this is the connecting link between that genus and *Attelabus*, it seems to me that it ought to be considered as distinct from both: the most essential character of the genuine *Curculio* is its broken antennæ, whose ten last joints form an angle with the first or elongate one; whereas these little insects, though they borrow the terminating knob from the latter genus, have unbroken antennæ like the former. There are a few curculios* (to show how the genera shade into each other) which are intermediate between that genus and *Apion*, whose antennæ, though the first joint is elongate, can

* C. atramentarius, *Marsh. Ent. Brit.* i. 293. 16. C. Cerasi, *ibid.* 265. 83. and C. Pruni, *ibid.* 247. 24.

neither be called entire nor broken, but between both, *subfractæ*. This confirms an observation which I made in a former work, "that the connecting links between two proximate genera usually borrow their characters from both*."

Herbst has called this genus *Apion*, because, in shape, it somewhat resembles *a pear*; I retain this name from my dislike of change, although a Greek termination in a Latinized word is rather awkward. *Apium*, indeed, was before engaged in botany, but perhaps its diminutive, *Apiolum*, might have done. I once had called this little genus *Eurhynchus*, from ευ *bene*, and ῥυγχος *rostrum*.

Herbst gives no generic character of *Apion*, but details most of its peculiarities†. I shall therefore endeavour to supply this deficiency, by constructing its *Essential*, *Artificial*, and *Natural Characters*.

APION.

Character Essentialis.

Antennæ integræ, subcapitatæ: capitulo ovato-lanceolato acuto subsolido, rostro elongato insidentes.

Character Artificialis.

Antennæ integræ, subcapitatæ: capitulo subsolido.
Rostrum sæpiùs porrectum, elongatum, subcylindricum.
Truncus teretiusculus.
Tibiæ apice inermes.
Corpus pyriforme *.

Character Naturalis.

CORPUS pyriforme, sæpiùs glabrum, interdum at subpubescens, crustâ cataphractum.

* *Monogr. Ap. Angl. tom.* i. *p.* 48. † *Natursyst. &c. tom.* vii. *p.* 100.

CAPUT

CAPUT thoraci insertum, parvum.

Os in rostrum productum plerumque attenuatum, arcuatum, subcylindricum, porrectum.

Maxillæ sub rostri apice insertæ, retractæ, brevissimæ, simplices, incurvæ, acutæ.

Lingua, unà cum valvulis palpisque quatuor, intra rostrum latitans haud conspicua.

Antennæ rostro insidentes capitatæ, nitidiusculæ, pilosulæ, 11-articulatæ: articulis duobus baseos crassioribus; primo clavato elongatiori, secundo conico, proximis sex brevissimis æqualibus ex conico rotundatis seu subturbinatis, ultimis tribus majoribus, arctissimè connexis capitulum ovato-lanceolatum acutum formantibus.

Oculi laterales, rotundi, convexi, reticulati.

Nucha glaberrima, retractilis.

Gula tumidula, glaberrima, retractilis.

TRUNCUS angustus, teretiusculus.

Thorax, trunci dorsum, punctulatissimus.

Pectus, trunci pars prona antica, suturâ nullâ a thorace distinctum.

Sternum acutum integrum, inter pedum intermediorum basin delitescens.

*Epigastrium**, trunci pars prona postica, dilatatum, a pectore incisurâ profundâ separatum, abdomini arctiùs incumbens, valdè convexum: puncto intermedio majori seu umbilico notatum; elytrorum dimidio anteriori supernè tectum.

* I have adopted this anatomical term to denote a part which has generally been confounded with the *Pectus*, but which is separated from it by a deep incisure, and frequently, in other genera, requires distinct notice.

Pedes elongati, cursorii, anteriores intermediis, intermedii posterioribus sub-breviores: apophysi seu coxæ biarticulatæ; articulo primo conico majori, secundo obconico minori, insidentes; anteriores duo seu manus pectori inserti antrorsum tendunt, posteriores autem quatuor ex epigastrio provenientes anum versùs.

Femora clavata.

Tibiæ subcompressæ, tenues, a basi sensim crassiores, apice inermes*.

Tarsi omnes 4-articulati, subtus pulvinati: articulis duobus primis conicis, penultimo majori obcordato bifido, ultimo minuto ascendente glabro unguiculato: unguiculis duobus incurvis.

Scutellum minutissimum, subtriangulare.

Elytra rigida, acuta, convexa, sulcata vel striata: striis exterioribus et interioribus sæpiùs posticè confluentibus.

Alæ membranaceæ, corpore longiores, transversè plicatæ: plicis tribus; anticè binervia: nervulis longitudinalibus, basi et apice approximatis†.

ABDOMEN ovatum: segmentis 5 seu 6; duobus anticis majoribus, intermediis angustissimis, ultimo longiori acuto.

* De Geer (*tom.* v. *p.* 201), speaking of *Curculio* Linn., makes the following observation: "*Les jambes de toutes les trois paires ont cela de particulier, que, dans toutes les espèces, elles ont en dessous de leur extremité un ongle ou un crochet pointu, tres dur et courbé en dessous———Ce crochet des jambes pourroit fort bien entrer dans le caractère generique de ces insectes.*" This observation must have been made after a partial examination, since we have seen above that some *Attelabi* have two spines, and all the species of *Apion* have none.

† Obs. "*In quibusdam nervuli insuper duo* (*sed haud facile conspiciuntur*) *a medio alæ usque ad ejus apicem divergunt.*"

Obs.

Obs.—*Mas vix a feminâ differt, nisi rostro breviori et paulò crassiori.*

LARVA apoda, anticè subtus loco pedum tuberculis tribus utrinque instructa, mollis, annulata, plicata*.

PUPA folliculata, ovata, lævis.

VICTUS *Larvæ* plantarum semina sæpiùs diadelphicarum, *Imaginis* autem folia.

TEMPUS inter æquinoctem vernalem et autumnalem.

Linné, in his *Fundamenta Entomologiæ*, defines the *Truncus* to be that part "*qui pectus seu thoracem comprehendit, inter caput et abdomen cui pedes inserti*;" yet in all *coleopterous* insects, and many of the other orders, the part which I have here called *Epigastrium*, to which the four posterior legs are affixed, seems rather to belong to the abdomen than the trunk; with the former it is closely connected, but from the latter it is separated by a deep incisure, so that what should in strictness be called the legs (for the anterior pair having a different direction, being applied often to different uses, and inserted in a different part, I would rather denominate hands or arms), the Elytra and Epigastrium, are parts of the abdomen: yet in hymenopterous insects the incisure is between the abdomen, properly so called, and the trunk: in these the anterior legs are affixed to the under-side of the neck, and their direction is likewise towards the head.

With respect to Families, I have as yet been able to find no clue for a natural subdivision of this genus, except the fol-

* Fabricius says of *Attelabus, Larva 6-poda*, this remark probably belongs to the true *Attelabi*, and so furnishes another proof that *Apion* is essentially different. Mr. Markwick (*Linn. Trans.* vi. *p.* 143. *tab.* 5. *fig. a—A.*) observed three tubercles only on each side, near the head, in the larva of one *Apion*, which supplied the place of legs. De Geer could discover none upon the larva of *Ap. Craccæ*. (*Tom.* v. *p.* 254. *tab.* vi. *fig.* 35, 36.)

lowing,

lowing, which separates one or two species only from the great majority.

* *Rostro* subinflexo. *Antennis* rostro basi subtus insertis.

** *Rostro* porrecto. *Antennis* rostri latere insertis.

APION.

SYNOPSIS SPECIERUM.

*

1. A. *Ulicis.* Nigrum cinereo-villosulum, rostro longissimo deflexo atro, pedibus anterioribus ferrugineis.
2. A. *melanopum.* Nigricans villosulum, elytris fuscis: strigâ obliquâ baseos cinereâ, pedibus rufis: plantis atris.

**

3. A. *Malvæ.* Nigrum cinereo-villosulum, elytris antennis pedibusque testaceis.
4. A. *vernale.* Fusco-nigricans cinereo-villosulum, elytris fasciis duabus fuscis, pedibus rufis.
5. A. *Ervi.* Atrum, antennis testaceis: apice nigris, coleoptris subglobosis.
6. A. *Lathyri.* Atrum, antennis totis testaceis: clavâ distinctè articulatâ, coleoptris subglobosis.
7. A. *Ononis.* Atrum piloso-subincanum, antennis totis nigris, fronte striatulâ, thorace canaliculato, coleoptris subglobosis.
8. A. *vicinum.* Atrum subpilosum, antennis totis nigris, fronte punctatâ, thorace postice lineâ exarato, coleoptris subglobosis.
9. A. *vorax.* Atrum villoso-canescens, antennis basi testaceis, tibiis anticis *femineis* subflexuosis, coleoptris oblongis atro-cæruleis.

10. A. *cæru-*

10. A. *cærulescens.* Atrum villoso-subincanum, rostro crassiusculo: apice subulato, coleoptris obovatis atro-cæruleis.
11. A. *subulatum.* Atrum subpilosum, rostro apice attenuato, coleoptris subglobosis.
12. A. *Craccæ.* Atrum villoso-subincanum, rostro crassiusculo: apice attenuato, antennis basi testaceis, coleoptris subglobosis.
13. A. *ruficorne.* Atrum villoso-incanum, rostro crassiusculo: apice subulato, antennis totis testaceis, coleoptris subglobosis.
14. A. *Viciæ.* Atrum villoso-canescens, subtus niveo-pubescens, antennis pedibusque testaceis, coleoptris globoso-ovatis.
15. A. *obscurum.* Nigrum albido-villosulum, pedibus quatuor anterioribus rufis, coleoptris globoso-oblongis obscurè nigro-æneis.
16. A. *Malvarum.* Atrum cinereo-subvillosum, subtus piloso-albicans, pedibus testaceis: plantis nigris, coleoptris ovatis nigro-æneis.
17. A. *rufirostre.* Atrum, subtus piloso-albicans, rostro dimidiato antennis pedibusque rufis, coleoptris ovatis nigro-æneis.
18. A. *nigritarse.* Atrum glabrum, rostro dimidiato pedibusque testaceis, antennis clavâ tarsisque nigris, coleoptris oblongo-ovatis.
19. A. *flavipes.* Atrum glabrum, pedibus flavis: plantis nigris, antennis basi rufis, coleoptris ovatis.
20. A. *pallipes.* Nigrum, pedibus testaceis: plantis nigris, fronte canaliculata, coleoptris oblongo-ovatis.
21. A. *Fagi.* Atrum glabrum, antennis basi femoribusque pallidis, coleoptris oblongis nigricantibus.
22. A. *assimile.* Atrum glabrum, femoribus omnibus tibiisque anticis testaceis, coleoptris subellipticis.

23. A. *fla-*

23. A. *flavifemoratum.* Atrum glabrum, femoribus omnibus tibiisque anticis testaceis, coleoptris globoso-ovatis gibbis.
24. A. *filirostre.* Atrum glabrum, coleoptris subglobosis, rostro pedibusque elongatis.
25. A. *Sorbi.* Atrum glabrum, coleoptris globosis virescenti-cæruleis, rostro *femineo* longissimo.
26. A. *subsulcatum.* Atrum glabrum, coleoptris subglobosis cæruleis, rostro mediocri, capite inter oculos ruguloso.
27. A. *foveolatum.* Atrum glabrum, coleoptris subglobosis cæruleis, rostro mediocri, fronte impressâ striatâ, thorace canaliculato.
28. A. *punctifrons.* Atrum glabrum, coleoptris subglobosis cæruleis, rostro mediocri, capite latiusculo inter oculos punctulato.
29. A. *sulcifrons.* Atrum glabrum, coleoptris subglobosis cæruleis, rostro mediocri: basi crassiori, capite inter oculos trisulco.
30. A. *striatum.* Atrum piloso-subincanum, coleoptris globosis sulcatis, thorace canaliculato.
31. A. *immune.* Atrum piloso-subincanum, coleoptris globoso-cuneiformibus sulcatis.
32. A. *virens.* Atrum, coleoptris oblongo-ovatis cæruleis viridescentibusve striatis: striâ suturali profundiori, thorace lævi-usculo.
33. A. *marchicum.* Atrum, coleoptris oblongo-ovatis atro-cæruleis striatis: striâ suturali profundiori, rostro breviori crassi-usculo.
34. A. *ebeninum.* Aterrimum nitidum, coleoptris ovatis sulcatis, thorace lateribus subgibbosis posticè latiùs canaliculato.
35. A. *Astragali.* Æneum nitidum, coleoptris oblongo-ovatis cyaneis, thorace canaliculato.

36. A. *Spar-*

36. A. *Spartii.* Atrum glabrum, coleoptris obovatis atro-cæruleis, fronte punctatâ, rostro mediocri.
37. A. *Spencii.* Atrum piloso-obscurum, thorace canaliculato, coleoptris oblongis atro-cæruleis, fronte striatâ, rostro piloso.
38. A. *Loti.* Nigrum piloso-subincanum, coleoptris obovatis, rostro longiori.
39. A. *unicolor.* Atrum subpilosum, coleoptris oblongo-ovatis, rostro mediocri medio subincrassato.
40. A. *atomarium.* Atrum piloso-incanum, coleoptris ovatis, rostro longiori, thorace brevi.
41. A. *aterrimum.* Atrum glabrum, coleoptris subovatis nitidiusculis atro-cæruleis, rostro mediocri.
42. A. *tenue.* Aterrimum angustum sub-glabrum nitidiusculum, coleoptris oblongis, rostro mediocri.
43. A. *Seniculus.* Atrum angustum piloso-canescens, coleoptris ovato-oblongis, rostro longiori.
44. A. *confluens.* Atrum angustum piloso-subincanum, coleoptris oblongo-ovatis, fronte bisulco, antennis posticis, rostro mediocri.
45. A. *Gyllenhalii.* Atrum subangustum piloso-obscurum, coleoptris oblongiusculis, antennis piceis, rostro longiori.
46. A. *Meliloti.* Atrum subangustum, coleoptris obovatis viridescenti-cæruleis, antennis mediis, rostro longiori.
47. A. *violaceum.* Atrum glabrum, coleoptris oblongo-obovatis violaceis, rostro brevi crassiusculo.
48. A. *Hydrolapathi.* Atrum glabrum, coleoptris oblongo-obovatis cæruleis viridescentibusve, rostro brevi crassiusculo.
49. A. *Rumicis.* Atrum sub-glabrum nitidiusculum, coleoptris obovatis obtusis violaceis nigrisve, rostro mediocri.
50. A. *affine.* Atrum glabrum nitidiusculum, coleoptris obovatis obtusis viridescentibus, rostro breviori crassiusculo.

 51. A. *bre-*

51. A. *brevirostre.* Atrum obscurum subpilosum, coleoptris subovatis, rostro breviori crassiusculo.
52. A. *Hookeri.* Atrum obscuriusculum, thorace globoso.
53. A. *lævigatum.* Atrum læviusculum, coleoptris ovatis violaceis obsoletè striatis.
54. A. *Onopordi.* Atrum glabrum, coleoptris ovatis nitidè viridiæneis cærulescentibusve, thorace scabro.
55. A. *carduorum.* Atrum, coleoptris ovatis obscuris viridescentibus cæruleisve, rostro basi utrinque gibbo.
56. A. *Radiolus.* Atrum glabrum, coleoptris ovatis acutis nigroæneis, antennis posticis, rostro mediocri.
57. A. *oxurum.* Atrum, coleoptris ovatis acutis cæruleis viridescentibusve, antennis posticis, rostro mediocri.
58. A. *æneum.* Atrum glabrum, coleoptris ovatis acutis æneis viridescentè-cæruleisve, fronte canaliculatâ.
59. A. *hæmatodes.* Rufum, oculis nigris, rostro brevissimo.
60. A. *frumentarium.* Sanguineum, oculis nigris, thorace subgloboso posticè canaliculato.

1. APION ULICIS.

A. nigrum cinereo-villosulum, rostro longissimo deflexo atro, pedibus anterioribus ferrugineis. *Tab.* i. *fig.* 1.

Curculio Ulicis. *Forst. Cent.* 31. *Gmel.* 1754 165.. *Marsh. Ent. Brit.* i. 256. 54.

Long. Corp. (*Rostro excluso*) $1\frac{1}{4}$ lin.

Habitat in Angliæ *Ulice* per totum ferè annum frequentissimum. *Mus.* nostr.

DESCR.

DESCR. CORPUS nigrum, pilis decumbentibus cinereis incanum.

CAPUT. *Rostrum* corporis ferè longitudine, tenue, filiforme, levissimè arcuatum, atrum, nitidum. *Antennæ* breviores, posticæ*, basi rufæ. *Occiput* atrum glabrum. *Oculi* majusculi, prominentes.

TRUNCUS subglobosus, posticè paulò latior. *Thorax* posticè (pilositate scil. abrasâ) canaliculatus, anticè submarginatus. *Pedes* anteriores ferruginei: femoribus basi nigris, posteriores quatuor nigri: tibiis obscurè rufis. *Scutellum* minutissimum. *Coleoptra* oblongiuscula, convexa, striata: striis punctatis.

Var. β. pedibus quatuor anterioribus ferrugineis.

— γ. pedibus omnibus nigris.

Obs.—*Mas* rostro vix thorace longiori.

This insect has much of the habit of Mr. Marsham's family A. b.*, yet, since the antennæ are not broken, it certainly belongs to this genus. It is remarkable that this species should not be known upon the continent, with us it is one of the most common of the tribe. It is entirely confined to *Ulex europæus*, but not, as Forster affirms, to the flowers, nor does it appear in the spring only, but may be met with all the summer, and sometimes even in the winter.

2. APION MELANOPUM.

A. nigricans villosulum, elytris fuscis: strigâ obliquâ baseos cinereâ, pedibus rufis: plantis atris.

Curculio melanopus. *Marsh. Ent. Brit.* i. 248. 27.

Attelabus fuscirostris. *Fabr. Ent. Syst. Em.* i. b. 389. 24. *Syst. Eleuth.* ii. 424. 40. Curculio fuscirostris. *Gmel.* 1743. 102.

* For my sense of these and similar terms see p. 3, 4.

Apion albovittatum. *Herbst. Natursyst.* vii. 126. 16. *t.* 103. *f.* 4.—D?

Long. Corp. 1½ lin.

Habitat in *Spartio* inter rariora. *Mus.* nostr.

DESCR. CORPUS nigricans, cinereo-villosulum, subtùs albidius.

CAPUT. *Rostrum* brevius, subdeflexum, sæpe porrectum, filiforme, tenue, læve, nitidissimum, levissimè arcuatum, pone antennas crassius obscurius. *Antennæ* posticæ, ferè mediocres, rufæ: capitulo fuscescenti. *Oculi* magni, subprominuli.

TRUNCUS. *Thorax* posticè paulo latior et canaliculatus, nigricans: lateribus ex pilis decumbentibus albidioribus. *Pedes* rufi: femoribus basi tarsisque nigris. *Scutellum* minutissimum. *Coleoptra* oblonga, sub luce nigro-æneа, striata: striis punctatis, apud basin utrinque strigâ obliquâ margine que laterali piloso-albidis.

Obs.—*In quibusdam striga obliqua albîda deteritur.*

3. APION MALVÆ.

A. nigrum cinereo-villosulum, elytris antennis pedibusque testaceis. *Tab.* i. *fig.* 2.

Attelabus Malvæ. *Fabr. Ent. Syst. Em.* i. b. 391. 32. *Syst. Eleuth.* ii. 426. 56.

Curculio Malvæ. *Marsh. Ent. Brit.* i. 246. 23. *Gmel.* 1743. 101. *Vill. Ent. Eur.* i. 188. 49. iv. 268. 49.

Long. Corp. 1 lin.

Habitat in Angliæ *Malvis* frequentissimum. *Mus.* nostr.

DESCR. CORPUS nigrum, pilis decumbentibus albidis incanum.

CAPUT.

CAPUT. *Rostrum* brevius, crassiusculum, villosulum, apice glabrum. *Antennæ* longiores, pone medium rostri insertæ, testaceæ, crassiusculæ: clavâ majusculâ. *Oculi* magni, subprominuli.

TRUNCUS: *Thorax* posticè paulò latior. *Pedes* testacei. *Coleoptra* oblonga, testacea, striata: striis vix punctatis. Elytrum utrumque internè apud basin obliquè nigricat.

Fabricius, and after him Mr. Marsham, have regarded *Curculio Pineti* of Paykull (*Mon. Curc.* 61. 58.) as synonymous with this insect, being led into this opinion by the error of the latter author; who, in that work, has confounded two insects essentially different. In his *Fauna Suecica*, however, (iii. 252. 72.) Paykull acknowledges his mistake. "*Minimè* Attel. Malvæ *Fabricii* (says he) *quod olim putavi, quia omnino hujus generis est.*" Herbst's *Rynchites Malvæ* is Paykull's insect, which, in the work last mentioned, that author names *Curculio Indigena*; it is found upon the Scotch fir (*Pinus Sylvestris*). *Apion Malvæ* is extremely common upon the mallow in this country, and is found upon no other plant.

4. APION VERNALE.

A. fusco-nigricans cinereo-villosulum, elytris fasciis duabus fuscis, pedibus rufis.

Herbst. Natursyst. vii. 123. 12. *t.* 102. *f.* 12.—M.

Attelabus vernalis. *Fabr. Ent. Syst. Em.* i. b. 392. 36. *Syst. Eleuth.* ii. 427. 60. *Payk. Faun. Suec.* iii. 183. 18.

Curculio vernalis. *Payk. Mon. Curc.* 138. 129.

Curculio concinnus. *Marsh. Ent. Brit.* i. 248. 26.

Curculio urticarius. *Herbst. Arch.* 74. 30.

Curculio Lythri. *Panz. Faun. Germ. Init.* 17. *t.* 8.

Long.

Long. Corp. 1. lin.

Habitat tempore vernali in *Ballota, Lamio* et *Urticis* haud rarum. *Mus.* nostr.

DESCR. CORPUS angustum satis, fusco-nigricans, albido-pilosum.

CAPUT cinereo-pilosulum. *Rostrum* mediocre, filiforme, leviter arcuatum, glabrum, nitidum, pone antennas incrassatum. *Antennæ* mediocres, posticæ, testaceæ. *Oculi* prominuli, pilis densis albidis undique cincti.

TRUNCUS. *Thorax* piloso-cinerascens: lateribus albidioribus, posticè paulò latior et canaliculatus. *Pedes* testacei: tarsis articulo unguiculari nigro. *Coleoptra* ovato-oblonga, striata: striis subpunctatis, ex pilis decumbentibus cinerea: fasciis duabus obliquis, undulatis, fuscis, glabris, primâ ad medium, secundâ pone medium parvo intervallo.

Mas minor, rostro breviori pilositate cinereâ tecto.

Obs.—*Elytrorum pubes cinerea interdum abraditur, et tunc fusca seu fusco-picea evadunt.*

I received this very minute insect amongst the Swedish *Coleoptera* sent me by Major Gyllenhal, for *Attelabus vernalis* of Fabricius, and upon comparing it with that author's description no doubt can remain of its being the same. It is common in Engglland in the spring, feeding principally upon black ballote (*Ballota nigra*), sometimes it is found on white dead-nettle (*Lamium album*), and often upon the common stinging nettle (*Urtica dioica*), a circumstance which seems to indicate that the latter plant possesses some further affinity with the former than the mere shape of the leaves*.

5. APION

* I mention this fact that it may not be lost, without wishing to build any hypothesis

5. APION ERVI.

A. atrum, antennis testaceis: apice nigris, coleoptris subglobosis.

Attelabus Ervi. *Mus. Dom. Gyllenhal.*

Long. Corp. $1\frac{1}{3}$ lin.

Habitat in Angliâ, Suecià. In vico dicto Brent-Illeigh prope Lavenham in Suffolciâ, Jul. 14, 1804 (et iterum apud Barham, Jul. exeunt. 1805), in *Lathyro pratensi* legi. *Mus.* nostr.

DESCR. CORPUS atrum, pilis albicantibus, nisi sub lente vix conspicuis, respersum.

CAPUT inter oculos striatulum. *Rostrum* longius, ante antennas nitidum, basi obscuriusculum. *Antennæ* sublongiores, pone medium rostri insertæ, testaceæ: clavâ nigrâ. *Oculi* subprominuli.

TRUNCUS subcylindricus. *Thorax* posticè lineolâ impressâ. *Tibiæ* tenues admodum. *Scutellum* minutissimum. *Coleoptra* ex obovato subglobosa, subsulcata: sulculis punctatis.

Obs.—*In altero sexu rostri apex paulò dilatatus. Thorax per totam ferè longitudinem canaliculatus.*

I originally received this insect from Major Gyllenhal, under the name of *Attelabus Ervi.* I have since taken it both at Barham and elsewhere upon *Lathyrus pratensis.*

The Swedish specimens are more hairy than our English ones.

sis upon it. It is further remarkable, that *Curculio Scrophulariæ* and *bipustulatus*, (*Marsh. Ent. Brit. n.* 117. 121.) both of which feed upon water betony (*Scrophularia aquatica*), attack, in great numbers every year, *Buddleia occidentalis* in my garden. It is observable that these plants, though of different classes and orders, are all tetrandrous.

6. APION

6. APION LATHYRI.

A. atrum, antennis totis testaceis: clavâ distinctè articulatâ, coleoptris subglobosis.

Long. Corp. 1¼ lin.

Habitat in Angliâ cum præcedente. *Mus.* nostr.

DESCR. CORPUS atrum, ex pilositate albidâ haud densâ leviter incanum.

CAPUT inter oculos bistriatum. *Rostrum* brevius, pilosulum, apice nitidum. *Antennæ* longiores, mediæ, totæ pallidè testaceæ: clavâ tenui admodum; articulis subdistinctis. *Oculi* subprominuli.

TRUNCUS dorso longitudinaliter canaliculatus. *Scutellum* minutissimum. *Coleoptra* ex obovato subglobosa, subsulcata: sulculis punctatis.

Obs.—*Maris* rostrum vix pilosum. Antennæ clavâ majusculâ: articulis arctè connexis. Thorax posticè puncto impresso, nec canaliculatus.

This species so nearly resembles the preceding, that it is not without considerable hesitation I give them as distinct: since, however, I possess the sexes of each, and the males differ in the shape of the rostrum, and the females both in the proportion of the clava of the antennæ and the connection of its joints, these circumstances will, I think, warrant my separating them. That they feed upon the same plant, though a presumptive, is by no means a demonstrative, evidence of their identity, since it often happens that the same plant furnishes food to several species in this genus. Major Gyllenhal, however, sent this amongst specimens of *Ap. Ervi*, considering it, I suppose, as merely a variety.

7. APION

7. APION ONONIS.

A. atrum piloso-subincanum, antennis totis nigris, fronte striatulâ, thorace canaliculato, coleoptris subglobosis.

Long. Corp. 1¼ lin.

Habitat in Angliæ *Onone*. Julio mense 1806 frequens. *Mus.* D. Spence. Nostr.

DESCR. CORPUS atrum, ex pilositate subincanum, obscuriusculum.

CAPUT longum satis, inter oculos striatulum. *Rostrum* sublongius, filiforme. *Antennæ* mediæ, sublongiores, totæ nigræ. *Oculi* subprominuli.

TRUNCUS ferè cylindricus, angustus, dorso canaliculatus. *Scutellum* minutissimum. *Coleoptra* ex oblongo globosa, sulcato-striata: striis punctatis; interstitiis planiusculis.

Obs.—*Maris rostrum brevius, paulò crassius, magìs pilosum.*

This species resembles the two preceding in almost every respect, except the colour of its antennæ, which are entirely black. Since, however, it inhabits a different plant (It is never found upon *Lathyrus pratensis*, nor, vice versâ, *Ap. Ervi* and *Lathyri* upon *Ononis*), I think I am justified in giving it as a distinct species.

8. APION VICINUM.

A. atrum subpilosum, antennis totis nigris, fronte punctatâ, thorace posticè lineâ exarato, coleoptris subglobosis. *Tab.* i. *fig.* 3. Apion Loti. *Mus.* Dom. Gyllenhal.

Long. Corp. 1¼ lin.

Habitat. In Sueciæ *Loto* (*corniculato?*) D. Gyllenhal. In Angliâ semel a Dom. Spence lectum. *Mus.* D. Spence. Nostr.

DESCR. CORPUS atrum, subpilosum, obscuriusculum.

CAPUT breve admodum, inter oculos punctatum. *Rostrum* longius, filiforme, satis arcuatum, basi paulò incrassatum. *Antennæ* posticæ. *Oculi* prominuli.

TRUNCUS brevis, ex globoso teretiusculus, posticè lineolâ dorsali brevissimâ et nisi sub lente forti vix conspicuâ leviter exaratus. *Scutellum* minutissimum. *Coleoptra* ex oblongo globosa, sulcato-striata: striis punctatis; interstitiis planiusculis.

This insect much resembles *Ap. Ononis*, but seems sufficiently distinguished from it by having a shorter and wider head, puncta instead of striæ between the eyes, instead of a longitudinal channel a very short faintly impressed line upon the thorax just above the scutellum, a rostrum more arched, and a less hairy body. It comes nearer to *Apion Loti* (n. 38), but it is a shorter insect, with a shorter rostrum, a wider head, elytra taken together of a different shape, and interstices of the striæ flat.

9. APION VORAX.

A. atrum villoso-canescens, antennis basi testaceis, tibiis anticis *femineis* subflexuosis, coleoptris oblongis atro-cæruleis.

Herbst. Natursyst. vii. 129. 20. *t.* 103. *f.* 8—H.

♀

Curculio villosulus. *Marsh. Ent. Brit.* i. 250. 34.

♂

Curculio fuscicornis. *Marsh. Ent. Brit.* i. 244. 17.

Long. Corp. ♀ 1¾ lin. ♂ 1½ lin.

Habitat in Suecià. In Angliæ *Fraxino sæpiùs* legi. *Mus.* D. Marsham. Nostr.

DESCR. CORPUS atrum, totum pilis albidis decumbentibus incanum.

CAPUT

CAPUT elongatiusculum, inter oculos bistriatum. *Rostrum* longius, ante antennas nitidum, basi obscuriusculum. *Antennæ* mediocres, mediæ, basi testaceæ. *Oculi* subimmersi, magni.

TRUNCUS. *Thorax* leviter punctulatus, posticè lineolâ exaratus. *Scutellum* minutum. *Coleoptra* oblonga, atro-cærulea, subsulcata: sulculis punctatis.

Obs.—*Feminæ rostrum mediocre. Antennæ pone apicem rostri insertæ capitulo tenui. Tibiæ anteriores basi et medio subattenuatæ undè subflexuosæ evadunt.*

What I have given as the two sexes of this insect (which is evidently *Apion vorax* of Herbst, and which has been sent to me as such from Sweden) stand in Mr. Marsham's cabinet as his *Curculio fuscicornis* and *villosulus*; and once, led by the shape of the anterior tibiæ in that which I take to be the female, I regarded them as distinct myself; but upon reconsidering the subject, I find that they agree together so exactly in every circumstance, except such as are common sexual characters in this genus, that I have scarcely any doubt of their identity.

10. APION CÆRULESCENS.

A. atrum villoso-subincanum, rostro crassiusculo: apice subulato, coleoptris obovatis atro-cæruleis. *Tab.* i. *fig.* 4.

Curculio cærulescens. *Marsh. Ent. Brit.* i. 245. 20.

Attelabus Pomonæ. *Fabr. Suppl.* 164. 27—8. *Syst. Eleuth.* ii. 425. 48.

Var. *β*.

Curculio glaber. *Marsh. Ent. Brit.* i. 245. 19.

Long. Corp. ♂ 1¾ lin. ♀ 2¼ lin.

Habitat in Angliæ *Oxyacanthâ*. "In Kiliæ *Pomona*." Fabr. *Mus.* nostr.

DESCR. CORPUS atrum, totum pilis albidis subincanum.

CAPUT punctulatum, inter oculos rugulosum. *Rostrum* brevius, crassum, pilosum, punctatum, apice subulatum deflexum, subtus medio dilatatum et quasi incisum, antennis ex incisuræ fossulâ provenientibus*. *Antennæ* mediocres, posticæ, *Oculi* prominuli.

TRUNCUS ex nigro paululùm cærulescens, posticè latior, apice submarginatus margine parum reflexo, ante scutellum lineolâ exaratus, punctatus pilo, quod sæpiùs fit in hoc genere, ex singulis punctis prodeunte. *Scutellum* minutum. *Coleoptra* obovata, cærulescentia, sulcato-striata: striis punctatis; interstitiis planis.

Mas feminæ simillimus, sed rostri apex glaber, nitidus, magìs et subitò attenuatus†. Frons inter oculos sulculis duobus. Antennæ articulo primo basi obscurè rufo.

Var. β. Adultior glaber, elytris vix colore cæruleo infectis.

Mr. Marsham's *Curc. cærulescens* is clearly synonymous with *Attel. Pomonæ* of the Supplement of Fabricius. The latter author quotes Herbst's *Apion ruficorne* as a variety of his insect, but in this I think him mistaken; that insect, which I shall shortly describe, being quite distinct, and more nearly related to *Apion Craccæ*. *Curculio glaber* was admitted into Mr. Marsham's useful work upon my authority: I am now convinced that it is merely a variety of the male of *Apion cærulescens* (which I had not then seen) that has lost its pubescence and colour through age.

11. APION SUBULATUM.

A. atrum subpilosum, rostro apice attenuato, coleoptris subglobosis. *Tab.* i. *fig.* 5.

Long. Corp. $1\frac{2}{3}$ lin.

* *Tab.* i. *fig.* 4. a. † *Ibid.* b.

Habitat

Habitat in Angliæ *Lathyro pratensi.* Mense Julio 1805 tria cepi. *Mus.* nostr.

DESCR. CORPUS atrum, opacum, pilositate parvâ, nisi sub lente vix conspicuâ, respersum.

CAPUT punctulatum, inter oculos striatulum. *Rostrum* mediocre, basi incrassatum obscurum, apice attenuatum nitidum, subtus vix dilatatum*. *Antennæ* mediocres, pone medium rostro insidentes: articulo primo basi obscurè rufo; clavâ majusculâ. *Oculi* subprominuli.

TRUNCUS lineâ dorsali anticè abbreviatâ exaratus. *Scutellum* minutissimum. *Coleoptra* ex obovato subglobosa, striata: striis punctatis; interstitiis planis.

Var. β. Rostro acumine breviori, basi crassiori. An Sex. alt.?

This species a good deal resembles variety β of that last described; but it is smaller, the rostrum is not dilated underneath, its acumen is longer, and the elytra are shorter in proportion.

12. APION CRACCÆ.

A. atrum villoso-subincanum, rostro crassiusculo: apice attenuato, antennis basi testaceis, coleoptris subglobosis.

Herbst. Natursyst. vii. 102. 2. *t.* 102. *fig.* 2—B.

Curculio Craccæ. *Linn. Syst. Nat. Ed.* 12. 606. 6. *Gmel.* 1743. 6.

Marsh. Ent. Brit. i. 245. 18. *Vill. Ent. Eur.* i. 174. 3. *Payk. Mon. Curc.* 131.

Curculio Viciæ. *De Geer.* v. 253. 43. *t.* 6. *f.* 31, 32.

Attelabus Craccæ. *Payk. Faun. Suec.* iii. 177. 11. *Walck. Faun. Paris.* i. 236. 11.

* *Tab.* i. *fig.* 5. a.

Long.

Long. Corp. 1¼ lin.

Habitat in Europæ septentrionalis *Viciæ Craccæ* seminibus et floribus. *Mus.* Linn. Nostr.

DESCR. CORPUS atrum, obscurum, ex pube albidâ leviter incanum.

CAPUT punctulatum, inter oculos rugulosum. *Rostrum* brevius, compressum, basi valde incrassatum rugulosum depressum, apice attenuato-subulatum læve, nitidum, subtùs carinatum, ab apice basin versus sensim dilatatum et quasi sacculiforme; dein incisum*. *Antennæ* longiores, posticæ, basi testaceæ: clavâ nitidâ, in fossulâ rostri insertæ. *Oculi* prominuli, magni.

TRUNCUS ex globoso teretiusculus, leviter punctulatus, dorso lineâ longitudinali utrinque abbreviatâ exaratus, anticè submarginatus. *Scutellum* minutissimum. *Coleoptra* subglobosa, sulcato-striata: striis punctatis; interstitiis planiusculis.

Amongst the synonyms of *Apion Craccæ* I have not referred to Fabricius, because he appears to have mistaken a different insect for it. *Elytra obscurè cærulea* and *Rostrum apice depressum* are terms which will not at all agree with the true *Apion Craccæ*, the original specimen of which still remains in the Linnean Cabinet. Panzer, likewise, has figured an insect under this name which has no relation to ours, for it differs from it both in size, (being considerably larger,) shape, and colour, and it wants the subulate rostrum, the most prominent feature of this species†.

13. APION RUFICORNE.

A. atrum villoso-incanum, rostro crassiusculo: apice subulato, antennis totis testaceis, coleoptris subglobosis.

* *Tab.* i. *fig.* 4. c. † *Faun. Germ. Init.* 20. *t.* 10.

Herbst.

Herbst. Natursyst. vii. 110. 8. *t.* 102. *f.* 8—H.

Long. Corp. 1½ lin.

Habitat in Angliâ, Borussiâ rarissimè. In *Corylo* legi Jun. ex 1805. *Mus.* D. Hooker. Nostr.

DESCR. CORPUS atrum, obscurum, piloso-incanum.

CAPUT pube albâ densiùs obsitum: lineâ intermediâ glabrâ. *Rostrum* brevius, totum ex pilis decumbentibus niveum, basi incrassatum, apice subulatum acumine breviusculo, subtùs ferè ut in specie præcedenti. *Antennæ* longiores, mediæ, tenues admodum, totæ testaceæ. *Oculi* prominuli, magni.

TRUNCUS minutissimè punctulatus, lineâ dorsali anticè abbreviatâ obsoletiùs exaratus. *Scutellum* minutissimum. *Coleoptra* subglobosa, sulcato-striata: striis punctatis; interstitiis planiusculis.

This little insect, although very nearly related to *Apion Craccæ*, is, I think, distinct from it: the hair on the body is thicker; the rostrum has a shorter acumen, and is covered, from the base to the tip, with white hairs; the antennæ, likewise, are entirely testaceous. Fabricius regarded it, as I observed before, merely as a variety of his *Attelabus Pomonæ*, but from that insect it differs not only in the colour of its elytra, but also in their shape, being proportionally shorter, so that, when taken together, they are subglobose. Herbst never saw but one specimen of it; and three only, that I know of, have been taken in England, one by Mr. W. J. Hooker, of Norwich, a most ingenious and indefatigable entomologist, and two others by myself.

14. APION VICIÆ.

A. atrum villoso-canescens, subtùs niveo-pubescens, antennis pedibusque testaceis, coleoptris ovatis.

Attelabus

Attelabus Viciæ. *Payk. Faun. Suec.* iii. 181. 16.

Apion difficile. *Herbst. Natursyst.* vii. 124. 13. *t.* 103. *f.* 1—A?

Long. Corp. 1¼ lin.

Habitat in Angliæ et Sueciæ *Vicià Craccâ*. *Mus.* D. Gyllenhal, Nostr.

DESCR. CORPUS atrum, supra pilis albis subincanum, subtus ex pube densâ niveum.

CAPUT inter oculos striatulum. *Rostrum* brevius, ex pilositate niveum, summo apice glabro nitido. *Antennæ* longiores, mediæ, totæ flavo-testaceæ. *Oculi* subprominuli.

TRUNCUS brevis admodum, ex globoso teretiusculus, leviter punctulatus, lineolâ dorsali posticè impressus. *Pedes* flavo-testacei: tibiis quatuor posterioribus tarsisque omnibus nigricante-rufis. *Scutellum* minutum, apice rotundatum. *Coleoptra* ex globoso ovata, sulcato-striata: striis punctatis; interstitiis planiusculis.

Obs.—*Alter sexus rostro mediocri tenuiori, basi subincrassato obscuro, ante antennas glabro nitido. Antennis pone medium rostri insertis.*

This insect was described by Paykull from specimens furnished by my learned correspondent Major Gyllenhal, who likewise sent it to me. He met with it upon *Vicia Cracca*; I have since found it very plentiful upon the same plant. I once thought that this might be the true *Curc. Trifolii* of Linné, but the characters *Rostrum thorace longius* and *Thorax excavato-punctatus* will not at all suit our insect. I have referred to *Apion difficile* of Herbst with a mark of interrogation, because he makes no mention of the white down which covers the underside of the body, a circumstance not likely to be omitted by so minute a describer, yet his insect in other respects is certainly nearly related to ours.

15. APION OBSCURUM.

A. nigrum albido-villosulum, pedibus quatuor anterioribus rufis, coleoptris globoso-oblongis obscurè nigro-æneis.

Curculio obscurus. *Marsh. Ent. Brit.* i. 244. 16.

Long. Corp. $1\frac{1}{4}$ lin.

Habitat in Anglia rarissimè, a D. Lambert lectum. *Mus.* D. Marsham. Nostr.

DESCR. CORPUS nigrum, pilis albidis subcinereum.

CAPUT inter oculos excavato-punctatum: punctis confluentibus. *Rostrum* longius, pone antennas crassius. *Antennæ* pone medium rostri insertæ, nigræ: articulo primo obscurè rufo.

TRUNCUS punctatus: punctis valde excavatis confluentibus, lineâ dorsali intermediâ posticè exaratus. *Pedes* quatuor anteriores rufi: genubus nigris. *Scutellum* minutum, medio excavatum. *Coleoptra* ex globoso oblonga, obscurè nigro-ænea, striata: striis subpunctatis; interstitiis planis.

This is the largest species of this minute genus that I have yet seen; it has been noticed by no author besides my ingenious friend Mr. Marsham in his excellent *Entomologia Britannica*. Two specimens were found amongst a parcel of insects given him by Aylmer Bourke Lambert, Esq., and these are the only ones that have yet been seen.

16. APION MALVARUM.

A. atrum cinereo-subvillosum, subtùs piloso-albicans, pedibus testaceis: plantis nigris, coleoptris ovatis nigro-æneis.

Curculio Trifolii. *Marsh. Ent. Brit.* i. 246. 22.

Long. Corp. $1\frac{1}{3}$ lin.

Habitat in Angliæ *Malvis* frequens. *Mus.* nostr.

DESCR. CORPUS atrum, pilositate subcinereâ levissimè incanum, subtùs, præcipuè ad latera, pilis densioribus lacteum.

CAPUT leviter punctulatum. *Rostrum* longius, nitidum, basi paulò crassius. *Antennæ* breviores, posticæ, totæ nigræ vel piceo-nigræ. *Oculi* parum prominuli, ex parte inferiori cilio longiusculo albido cincti.

TRUNCUS ex globoso teretiusculus, leviter punctulatus, lineolâ dorsali brevissimâ posticè obsoletiùs exaratus. *Pedes* testacei: tarsis nigris. *Scutellum* minutissimum. *Coleoptra* ovata, nitidiuscula, nigro-ænea, striata: striis subpunctatis; interstitiis planiusculis.

This insect stands in Mr. Marsham's cabinet as *Curculio Trifolii* of Linné, and it certainly agrees with the description of the illustrious Swede better than any other of these yellow-legged Apions; so that my ingenious friend's error, since he did not know the true *habitat* of the insect in question, furnishes, in effect, a proof his accuracy, especially when it is considered that he had been informed by Mr. Markwick of the devastation committed upon *Trifolium pratense* by a species, which from the description of that gentleman seemed synonymous with it. I say error, because I think this species is not *C. Trifolii* of Linné, and clearly distinct from that to which Mr. Markwick so justly attributes the damage often occasioned to crops of clover-seed. Linné informs us that his insect feeds upon *Trifolium montanum*, whereas *Apion Malvarum* is confined to the mallow, and is never to be met with upon any diadelphous plant: the former, except the abdomen and thighs, appears to be all black, but the elytra of the latter are nigro-æneous: in that the thighs only are described as of a pale colour (*pallida*); in this the whole leg, except the tarsus, is testaceous. Yet had this insect fed upon *Trifolium*, and been synonymous with Mr. Markwick's, these

these differences might have been regarded as accidental; and, since Linné does not always use his terms rigidly according to their strict definition, and in his descriptions often omits to notice many peculiarities of the subject he is treating of, it might have been thought that in the present instance latitude of this kind was taken: but our insect is quite distinct from the clover Weevil; the shape of the thorax and that of the elytra taken together is different, the former being more spherical, and the latter more oblong. The *Apion* of the mallow is also hairy, especially underneath, which gives the whiteness to its breast and abdomen, whereas Mr. Markwick's insect has no hairs upon it, and is quite black underneath. That gentleman, indeed, in his description, speaks of his specimens as having "a whitish belly," (a circumstance which naturally induced Mr. Marsham to regard the two insects as synonymous) but in a letter with which he favoured me, in answer to some queries I put to him upon this subject, he says, "I well remember that when this insect was first excluded from its chrysalis state, its belly was whitish, as I have described it, but I think I afterwards discovered that its belly soon (in a day or two) changed to black, which may account for the difference in Mr. Lehmann's description and mine."

17. APION RUFIROSTRE.

A. atrum, subtùs piloso-albicans, rostro dimidiato antennis pedibusque rufis, coleoptris ovatis nigro-æneis.

Herbst. Natursyst. vii. 111. 10. *t.* 102. *f.* 10—K.

Curculio rufirostris. *Fab. Syst. Ent.* 132. 25. *Sp. Ins.* i. 167. 35. *Mant.* i. 100. 46. *Marsh. Ent. Brit.* i. 246. 21. *Gmel.* 1744. 107. *Vill. Ent. Eur.* i. 187. 44. iv. 267. *Ross. Faun. Etrusc.* i. 122. 293. *Hellw.* 293.

Attelabus rufirostris. *Fabr. Ent. Syst. Em.* i. b. 390. 26. *Syst. Eleuth.* ii. 424. 43.

Long. Corp. $1\frac{1}{4}$ lin.

Habitat in Angliæ *Malvis* cum præcedente. *Mus.* nostr.

DESCR. CORPUS atrum, obscurum, suprà albido subpilosum, subtùs totum pilis densis lacteum.

CAPUT inter oculos rugulosum. *Rostrum* brevius, crassiusculum, basi nigrum, ante antennas rufum, apice summo iterum nigro. *Antennæ* mediocres, testaceæ, posticæ: clavâ crassiusculâ. *Oculi* vix prominuli.

TRUNCUS ex globoso teretiusculus, leviter punctulatus, lineolâ posticâ brevissimâ suprà obsoletiùs exaratus. *Pedes* testacei: tarsis articulis duobus extimis nigris. *Scutellum* minutum. *Coleoptra* ovata, nigro-ænea, striata: striis vix punctatis; interstitiis planiusculis.

ABDOMEN. *Anus* testaceus.

This insect certainly bears, in many respects, considerable resemblance to *Apion Malvarum*; yet it differs so materially in others, that I cannot help regarding them as distinct: its rostrum rufous at the end, its rufous anus and antennæ are differences too striking to be regarded as merely indications of sex, unless stronger evidence could be adduced than the mere circumstance of their inhabiting the same plant. I have therefore, notwithstanding an observation of Hellwig's recorded by Herbst which intimates that they are varieties, ventured to continue them as distinct.

18. APION NIGRITARSE.

A. atrum glabrum, rostro dimidiato pedibusque testaceis, antennis clavâ tarsisque nigris, coleoptris oblongo-ovatis. *Tab.* 1. *fig.* 6.

Long. Corp. $\frac{3}{4}$ lin.

Habitat

Habitat in Angliæ *Corylo*, apud Nacton prope Gippovicum a nobis et Dom. Sheppard bis lectum, iterum a Dom. Spence in Comitatu Eboracensi. *Mus.* Dom. Sheppard, Spence, nostr.

DESCR. CORPUS totum aterrimum, et, capite excepto, glabrum.

CAPUT inter oculos punctulatum, pilis albicantibus subincanum. *Rostrum* mediocre, ante antennas pallidè testaceum. *Antennæ* longiores, mediæ, pallidè testaceæ: clavâ nigrâ. *Oculi* prominuli.

TRUNCUS minutissimè punctulatus, dorso canaliculatus. *Pedes* pallidè testacei: tarsis nigris. *Coleoptra* ex oblongo-ovata, striata: striis punctatis.

Obs.—*Caput interdum nudum. Thorax vix canaliculatus.*

My valuable friend, the Rev. Revett Sheppard, first found this insect. I afterwards took a specimen upon the hazle-nut, and Mr. Spence met with it upon the same shrub in Yorkshire.

It is considerably smaller than *Apion rufirostre:* the body is without hairs; the knob of the antennæ, the tarsi, and the elytra, are black; in other respects it much resembles that species.

19. APION FLAVIPES.

A. atrum glabrum, pedibus flavis: plantis nigris, antennis basi rufis, coleoptris ovatis.

Herbst. Natursyst. vii. 106. 5. *t.* 102. *f.* 5—E.

Curculio flavipes. *Fabr. Syst. Ent.* 133. 13. *Sp. Ins.* i. 169. 47. *Mant.* i. 102. 63. *Gmel.* 1745. 11. *Payk. Mon. Curc.* 144. 135.

Attelabus flavipes. *Fabr. Ent. Syst. Em.* i. b. 391. 33. *Syst. Eleuth.* ii. 427. 57. *Payk. Faun. Suec.* iii. 182. 17. *Walck. Faun. Paris.* i. 236. 13.

Long. Corp. 1¼ lin.

Habitat Larva in Angliæ *Trifolii repentis* capitulis, *Imago* in sepibus per totam æstatem obvia, et in tempore inflorescentiæ

in

in plantâ supradictâ frequens uterque sexus. *Mus.* nostr. Var. β. *Mus.* Dom. Marsham.

DESCR. CORPUS atrum, subnitidum, glabriusculum.

CAPUT paulò longius quàm in hoc genere mos est, punctulatum, inter oculos striatulum. *Rostrum* brevius nitidum, basi et apice paulò crassius. *Antennæ* longiores, pone medium rostri insertæ, basi testaceæ. *Oculi* subprominuli.

TRUNCUS angustus, subcylindricus, punctulatissimus, posticè lineâ dorsali leviter exaratus. *Pedes* flavi: apophysibus tarsisque nigris. *Scutellum* minutissimum. *Coleoptra* globoso-ovata, striata: striis punctatis; interstitiis planiusculis.

Var. β. Tibiis omnibus piceis.

Obs.—*In altero sexu rostrum mediocre, Coleoptra oblongo-ovata.*

This insect, which I received from Sweden as *Attelabus flavipes* of Fabricius, is not uncommon in this country: it may frequently be met with, early in the spring, in hedge-rows and warm situations, but it deposits its eggs in the heads of white or Dutch clover (*Trifolium repens*), in which the sexes may commonly be found. I took it last summer (1805) in great numbers upon this plant in Suffolk, and afterwards in Middlesex; and Mr. Markwick, near Tunbridge. The insect which does so much damage to common clover is a distinct species from this, and it is remarkable, that so far as my observation has extended, these two species confine themselves each to its own kind of clover, without interfering the one with the other.

20. APION PALLIPES.

A. nigrum, pedibus testaceis: plantis nigris, fronte canaliculatâ, coleoptris oblongo-ovatis. *Tab.* 1. *fig.* 7.

Apion

Apion pallipes. *Mus.* D. Gyllenhal.

Long. Corp. 1¼ lin.

Habitat in Angliæ sepibus rariùs. Etiam in Suecià. *Mus.* nostr.

DESCR. CORPUS nigrum, obscuriusculum, pilosulum.

CAPUT latum, punctulatum, inter oculos canaliculatum. *Rostrum* submediocre, glabrum, nitidum, apice paulò dilatatum. *Antennæ* longiores, posticæ, basi obscurè rufæ. *Oculi* prominuli.

TRUNCUS ex globoso teretiusculus, punctulatissimus, lineolâ posticâ dorsali obsoletiusculâ. *Pedes* testacei: tarsis nigris. *Scutellum* minutum. *Coleoptra* oblongo-ovata striata: striis punctatis; interstitiis planiusculis.

Var. β. Rostro breviori, punctulato. *An sex. alt.?*

Unless it be very closely examined, this insect is very liable to be confounded with *Apion flavipes*, yet it exhibits some very discriminating characters, which in a larger insect would at first sight establish its claim to be considered as a distinct species. The head is much wider in proportion; a single channel or furrow, drawn longitudinally, distinguishes the space between the eyes; the rostrum is thicker and a little wider at the apex; and, to name no other circumstance, the thorax is not nearly so narrow, and of a different shape. Since I have both sexes of *Apion flavipes*, I can see that these are not sexual characters; and from the rostrum being shorter in variety β of *Apion pallipes* (a usual sexual distinction) I may presume that I possess the sexes of the latter insect, in which case no doubt can remain of their being distinct. In the Swedish specimens of this insect, the channel between the eyes is not so visible as it is in the English ones.

21. APION FAGI.

A. atrum glabrum, antennis basi femoribusque pallidis, coleoptris oblongis nigricantibus. *Tab.* 1. *fig.* 8.

Curculio Fagi. *Linn. Syst. Nat. Ed.* 12. 611. 44. *Faun. Suec.* 609. *It. Scan.* 111. *Gmel.* 1761. 44.

Long. Corp. $1\frac{1}{3}$ lin.

Habitat in Sueciæ *Fagi* foliis. Linn. *Mus.* Linn. nostr.

DESCR. CORPUS atrum, glaberrimum.

CAPUT punctulatum. *Rostrum* longius, pone antennas paulò crassius et punctulatum. *Antennæ* longiores, mediæ, basi pallidæ. *Oculi* majusculi, parum prominuli.

TRUNCUS subcylindricus, punctulatissimus. *Thorax* posticè obsoletiùs canaliculatus. *Pedes* nigri: femoribus luteo-pallidis. *Scutellum* minutissimum. *Coleoptra* oblongiuscula, nigro-picea cum levi tincturâ violæ, sulcato-striata: striis punctatis; interstitiis planiusculis.

Var. β. Tibiis anticis etiam pallidis.

This is one, amongst many, of the original Linnean insects, which appears not to be known by the entomologists of the present day. Paykull candidly owns (*Faun. Suec.* iii. 268. 90.) *Olim in Mon. Curc. sub nomine* Curc. Fagi *a me determinatus*, (*viz.* Curc. Populi *Fabr.*) *sed descriptio Linnæana* Curc. Fagi *non quadrat, mihi igitur ille adhuc ignotus est.*

I should conjecture, from Fabricius's altering the terms of Linné's description, that he had seen an insect which he took for *Curc. Fagi*, but since the true one would be an *Attelabus* according to his system, and he has kept his in *Curculio*, (*Rhynchænus Syst. Eleuth.*) and amongst the *saltatorii*,—hence, I imagine, that

that as yet he is unacquainted with it; and on this account I have not referred to him.

It will be expected that I assign my reasons for giving the insect here described as the genuine *Curculio Fagi* of Linné. My description was taken from the original specimens still preserved in the Linnean Cabinet. These are fastened with gum upon a piece of paper inscribed by Linné's own hand, which places their identity beyond all question; since the name, being written upon the same paper on which the insects are fastened, cannot have been changed even by accident.

That naturalists should have been at a loss about this species appears not so wonderful, when we consider that Linné has placed it in an order to which it does not belong, namely amongst his *Saltatorii, femoribus posticis crassis.* There is one circumstance mentioned in the description of *Faun. Suec.*, which, if it had been observed, would have pointed out that this insect was in a wrong place—viz. *Antennæ—infimo articulo—vix reliquis longiore.* In the curculios of that family, and indeed in all the genuine curculios, the first joint of the antennæ is nearly as long as all the rest taken together, and forms an angle with them. Whether this insect be a jumper, having never seen a living specimen, I cannot positively say; yet none of the species of the genus *Apion*, that are known at present, are of that description; and the posterior thighs of *Apion Fagi* are scarcely thicker than the four anterior, and therefore are not particularly adapted to such a mode of motion.

Scopoli has a *Curculio Fagi*, and Linné refers to him for it, hastily it should seem, and without sufficiently attending to his description. *Totus niger, villo brevi pubescens. Caput gerit rostro nihilo brevius—neque dicendus longirostris.* These are characters which are quite at variance with the genuine insect and his own description.

22. APION ASSIMILE.

A. atrum glabrum, femoribus omnibus tibiisque anticis testaceis, coleoptris subellipticis.

Long. Corp. 1¼ lin.

Habitat in Angliæ *Trifolii ochroleuci* capitulis et foliis. *Mus.* nostr.

DESCR. CORPUS atrum, glabrum, obscuriusculum, tenue admodum.

CAPUT inter oculos striatulum. *Rostrum* mediocre, punctulatum, apice nitidum, pone antennas crassius. *Antennæ* longiores, mediæ, basi piceæ. *Oculi* subimmersi.

TRUNCUS subcylindricus, angustus, punctulatissimus: punctis confluentibus, dorso posticè subcanaliculatus. *Pedes* atri; femoribus omnibus, apophysibus tibiisque anticis, his obscurè, rufo-testaceis. *Scutellum* minutissimum. *Coleoptra* aterrima, subelliptica, leviter striata: striis obsoletiùs punctatis; interstitiis planiusculis.

Obs.—*Alter sexus rostro longiori, thorace posticè magis conspicuè canaliculato.*

23. APION FLAVIFEMORATUM.

A. atrum glabrum, femoribus omnibus tibiisque anticis testaceis, coleoptris globoso-ovatis gibbis.

Herbst. Natursyst. vii. 125. 14. *t.* 103. *f.* 2—B.

Curculio Trifolii var. *Marsh. Ent. Brit.* i. 246. 22. *Trans. Linn. Soc.* vi. 142. *t.* 5. *f.* a—d.

Curculio ochropus. *Müll. Zool. Dan. Prod.* 9. 1018. *Act. Nidros.* 4—15. *Gmel.* 1757. 203.

Attelabus flavipes. *Panz. Ent. Germ.* 298. 22. *Faun. Germ. Init.* 20. *t.* 13.?

Le Becmare noir à pattes fauves. *Geoffr.* i. 272. 8.

Long. Corp. 1¼—1¾ lin.

Habitat

Habitat in Angliæ *Trifolii pratensis* satis, *Larva* semina exedens, *Imago* ubique frequentissima per totum ferè annum.

DESCR. CORPUS atrum, glabrum.

CAPUT punctulatum, inter oculos rugulosum. *Rostrum* longius, filiforme, nitidum, punctulatum, medio paulò crassius. *Antennæ* mediocres, mediæ, basi testaceæ. *Oculi* subimmersi.

TRUNCUS punctulatus, posticè lineolâ dorsali exaratus. *Pedes* atri: femoribus omnibus, apophysibus tibiisque anticis, at hi obscuriùs, rufo-testaceis. *Scutellum* minutissimum. *Coleoptra* subglobosa seu ex globoso ovata, fornicata et ferè gibba, nitidiuscula, nigra, nigrore sæpiùs æneo leviter infecto, striata: striis punctatis; interstitiis convexiusculis.

Var. β. Minor, antennis totis nigris.

— γ. Tibiis omnibus nigricantibus: annulo testaceo.

Obs.—*Sexus alter rostro mediocri.*

The two insects last described, (namely *Apion assimile*, and *flavifemoratum*,) from their extreme similarity to each other, are very liable to be confounded; if, however, they be carefully examined, they will be found to possess characters sufficiently striking to entitle them to rank as distinct species. In *Apion assimile* (an insect which seems peculiar to *Trif lium ochroleucum*) the body is much narrower than is the case with the other, and not so shining; the space between the eyes, which are scarcely at all prominent, is furrowed, but not very distinctly; the antennæ are piceous at the base; the trunk is nearly cylindrical; and the elytra subelliptical, with furrows slightly drawn. In *Apion flavifemoratum* the space between the eyes is rugulose; the body is wider in proportion than in the preceding; the elytra are

shining, black with a very slight æneous tinge, taken together they are subglobose, extremely convex, vaulted, and almost gibbous, with furrows deeper than those of *Apion assimile*; in every other respect it is the counterpart of that species.

Having said what appeared to me necessary to prove that these are distinct species, I shall confine myself in what I have further to observe, to the one last described, *Apion flavifemoratum*, which is by far the most interesting of all, on account of the loss which it occasions to the agriculturist by the havoc it frequently makes in his crops of clover-seed; for the account of which, and of the history and œconomy of this insect, I must refer the reader to the ingenious letters of Messrs. Markwick and Lehmann contained in the 6th volume of the Linnean Society's Transactions*; and next proceed to inquire whether this has a better claim to be considered as the *Curc. Trifolii* of Linné, than *Apion Malvarum*. I must observe that my specimens identify with those sent me by Mr. Markwick as his insect.

The principal reason for regarding *Apion flavifemoratum* as *Curc. Trifolii*, is taken from both of them feeding upon a species of the genus *Trifolium*; but this circumstance, although it may furnish considerable presumptive evidence, is by no means a positive proof that they are synonymous; for we must recollect that Linné's insect feeds upon *T. montanum*, which is not a native of Great Britain, whereas ours is confined to *T. pratense*, attacking no other species: now since, as we have seen above, both *T. repens* and *T. ochroleucum* supply each a peculiar species with food, so probably may *T. montanum*: therefore, before we can be clear as to the identity of the two insects, we must compare ours with Linné's description of his: in this there are two circumstances that will not well accord with *Apion flavifemora-*

* P. 142—150.

tum

tum—viz. *femora pallida*—*abdomen niveum*: upon the former of these I will not lay much stress, (though Linné elsewhere* explains the term *pallidus* by *albido-flavus*, and the thighs of the clover weevil are rufo-testaceous,) but the latter will not by any means suit our insect, which has a naked black abdomen; and in the many hundreds of specimens which I have examined, this part has never varied from that colour.

Whether what I have given above as such, or the insect now under consideration, be the true *Attelabus flavipes* of Fabricius seems uncertain; his *Nomen Specificum* defines it *femoribus luteis*, but in his description (which is to be found only in his early work, *Systema Entomologiæ* 133. 33.) he says *pedibus flavis*. In his later works he refers both to Geoffroy and Paykull, the former of whom, by his *Becmare noir à pattes fauves*, evidently intends *Apion flavifemoratum*, since he says *Tout l'animal est d'un noir luisant, à l'exception des cuisses qui sont rougeâtres*. Whereas the latter as evidently had in his eye that which I have before synonymized with *Attelabus flavipes*; this appears by the terms employed in his *Nomen Specificum*, femoribus tibiisque flavis: since this last was sent me as Fabricius's insect by my learned and liberal correspondent Major Gyllenhal, who has better opportunities than I have of knowing his sentiments, I have therefore given it as *Att. flavipes*. It is most probable, however, that Fabricius, in common with other entomologists, has confounded the two species.

I have added a mark of interrogation to the synonym of Panzer, because it seems to me uncertain whether his figure belongs to *Apion flavifemoratum*, or *Apion flavipes*.

Herbst's *Apion flavifemoratum* (sent also by Major Gyllenhal) is synonymous with my variety β.

* Faun. Suec. 180. 609.

24. APION FILIROSTRE.

A. atrum glabrum, coleoptris subglobosis, rostro pedibusque elongatis.

Long. Corp. $1\frac{1}{3}$ lin.

Habitat in Anglia rarissimum. *Mus.* nostr.

DESCR. CORPUS atrum, glaberrimum, vix nitidum.

CAPUT inter oculos striatulum. *Rostrum* longius, subfiliforme, nitidum, levissimè punctulatum, ante antennas subattenuatum. *Antennæ* breviores, pone medium rostri insertæ. *Oculi* subimmersi.

TRUNCUS subcylindricus, levissimè punctulatus, ante scutellum lineolâ obsoletiùs impressus. *Pedes* elongati. *Scutellum* minutum. *Coleoptra* ex globoso ovata, striata: striis subpunctatis; interstitiis planiusculis.

Obs.—*Sexus alter rostro mediocri; antennis mediis.*

This insect very much resembles *Apion flavifemoratum*, but is at first sight to be distinguished from it by its entirely black legs: I have taken two specimens only of it, upon what plant I did not observe.

25. APION SORBI.

A. atrum glabrum, coleoptris globosis virescenti-cæruleis, rostro longissimo.

Herbst. Natursyst. vii. 111. 9. *t.* 102. *f.* 9—I. eximia.

Attelabus Sorbi. *Fab. Ent. Syst. Em.* i. b. 390. 29. *Syst. Eleuth.* ii. 426. 52. *Payk. Faun. Suec.* iii. 178. 12. *Panz. Faun. Germ. Init.* 20. *t.* 11.

Curculio viridescens. *Marsh. Ent. Brit.* i. 249. 31.

Curculio lævigatus. *Payk. Mon. Curc.* 133.

Long. Corp. 2 lin.

Habitat

Habitat in Angliâ tempore vernali e rarioribus unum. Etiam in Suecià et Germaniâ. *Victus—Sorbi Aucupariæ* flores, fructus, succus. *Dom. Herbst. Mus.* nostr. ♂. D. Spence, nostr.

DESCR. CORPUS atrum, glaberrimum, nitidiusculum.

CAPUT brevissimum, inter oculos rugulosum. *Rostrum* vix corpore brevius, apice paulò dilatatum, ubi antennæ inseruntur utrinque tumidulum. *Antennæ* breviores, pone medium rostro insidentes. *Oculi* immersi.

TRUNCUS subglobosus, punctulatus: punctis confluentibus, posticè dorso profundè canaliculatus. *Scutellum* minutissimum. *Coleoptra* globosa, viridescenti-cærulea, striata: striis quasi acu ductis, subpunctatis: interstitiis latis, planis.

Obs.—*Mas fœmina differt rostro multo breviori, crassiori; antennis brevioribus; elytris obscurioribus nigris: nigrore æneo aut viridi-æneo paululùm tincto.*

Mr. Marsham's description of this insect was made when he was staying with me, from a specimen in my cabinet: neither of us at that time discovered it to be *Attelabus Sorbi* of Fabricius. I have since received it as such from Major Gyllenhal, and upon comparing it with the description of Fabricius, I am convinced that his specimens are rightly named. It is well figured in Panzer, and admirably by Herbst. *Curculio Sorbi* of *Entomologia Britannica* is quite a distinct insect, which I shall hereafter describe. I have looked for this insect upon *Sorbus Aucuparia*, where it was growing wild, but could never meet with it there. I have generally found it in grass: but this circumstance probably was merely accidental. It is a rare insect, particularly that which, upon the authority of Major Gyllenhal, I have given as the male, which has been taken in Britain but once by Mr. Spence.

26. APION SUBSULCATUM.

A. atrum glabrum, coleoptris subglobosis cæruleis, rostro mediocri capite inter oculos ruguloso.

Curculio subsulcatus. *Marsh. Ent. Brit.* i. 249. 32.

Apion cæruleum. *Herbst. Natursyst.* vii. 123. 11. *t.* 102. *f.* 11—L?

Long. Corp. 1¼ lin.

Habitat in Angliæ *Viciâ Sepium. Mus.* nostr. Dom. Spence. β. γ.

DESCR. CORPUS atrum, glaberrimum, obscuriusculum.

CAPUT longiusculum, inter oculos rugulosum. *Rostrum* mediocre, filiforme, leviter punctulatum. *Antennæ* mediocres, mediæ, attenuatæ: clavâ elongatiusculâ. *Oculi* subimmersi.

TRUNCUS angustus, brevis, ferè cylindricus, excavato-punctatus, dorso posticè vix, ac ne vix, canaliculatus. *Scutellum* minutissimum. *Coleoptra* subglobosa, amœnè cærulea, subsulcata: sulculis jucundè punctatis; interstitiis planiusculis.

Obs.—*Thorax interdum posticè magis conspicuè canaliculatus.*

Var. β. Elytris sulcorum interstitiis convexis.

—— γ. Thorace fossulâ aut lineâ nullâ exarato.

—— δ. Capite inter oculos trisulco.

Herbst's figure makes the rostrum longer than it is in our specimens; on this account I have added a mark of interrogation to his synonym. β. may be distinct, but it differs in nothing but the convexity of the interstices of the *striæ*. I took δ upon the bean; it may perhaps be distinct, but it differs in scarcely any point, except the furrows between the eyes.

27. APION FOVEOLATUM.

A. atrum glabrum, coleoptris subglobosis cæruleis, rostro mediocri, fronte impressâ striatâ, thorace canaliculato.

Long.

Long. Corp. 1¼ lin.

Habitat in Suecià: ex Mus. Dom. Gyllenhal. β. In Anglia: ex Mus. Dom. Lathbury. γ. ex Mus. Dom. Spence.

DESCR. CORPUS atrum, obscurum, subglabrum.

CAPUT inter oculos foveâ impressum, et in foveâ striatulum. *Rostrum* submediocre, crassiusculum, punctulatum. *Antennæ* mediocres, mediæ: clavâ crassiusculâ. *Oculi* subprominuli.

TRUNCUS anticè submarginatus seu coarctatus, excavato-punctatus, dorso posticè canaliculatus. *Scutellum* minutissimum. *Coleoptra* ex obovato subglobosa, cærulea, pilositate quâdam brevissimâ, et nisi sub lente forti vix conspicuâ, obscurata, subsulcata: sulculis punctatis; interstitiis planiusculis.

Var. β. Frontis foveâ impressiori canaliculatâ, antennis rostro longioribus, corporis pilositate magis conspicuâ, thorace anticè vix coarctato. An idem?

—— γ. Rostro longiori nitido, in medio supra inter antennas puncto impresso, corpore glabriori.

Obs.—*Frontis fovea nisi a latere vix conspicienda.*

This insect is very similar to *Apion subsulcatum*, but the head is wider, the eyes more prominent, and the space between them hollowed out into a concavity with one or more furrows; the thorax or trunk, also, is of a shape rather different and wider, with a much stronger dorsal furrow. A. differs from β. and γ. more than the sexes usually do, and may possibly be distinct; yet they are so extremely similar to each other, that I judged it best not to separate them. The former was sent me from Sweden as *Attelabus cyaneus* of Fabricius, and *Apion sulcifrons* of Herbst, but I cannot think it is either. The character of *At. cyaneus*—*thorax utrinque tuberculo elevato*—evidently does not belong to

this species, and it certainly is not Herbst's insect, which we shall shortly describe, whose admirable figure clearly points out the species he meant. The impressed point on the rostrum of Var. γ. may perhaps be accidental.

28. APION PUNCTIFRONS.

A. atrum glabrum, coleoptris subglobosis cæruleis, rostro mediocri, capite latiusculo inter oculos punctulato. *Tab.* 1. *fig.* 9.

Long. Corp. 1¼ lin.

Habitat in Angliâ semel lectum. *Mus.* nostr.

DESCR. CORPUS atrum, glaberrimum.

CAPUT longius et latius quàm in plerisque præcedentibus, posticè nitidum læve, inter oculos excavato-punctatum. *Rostrum* submediocre, punctulatum, crassiusculum. *Antennæ* mediocres, mediæ. *Oculi* prominuli.

TRUNCUS discretè excavato-punctatus, posticè dorso canaliculatus. *Scutellum* satis conspicuum. *Coleoptra* subglobosa, cærulea, sulcata: sulculis jucundè punctatis; interstitiis convexiusculis.

The insect I have here described is of the same habit with the two preceding ones, yet very distinct from either. The head is both wider and longer; the space between the eyes is punctulate; and the furrows of the elytra are wider and deeper with convex interstices.

29. APION SULCIFRONS.

A. atrum glabrum, coleoptris subglobosis cæruleis, rostro mediocri: basi crassiori, capite inter oculos trisulco.

Herbst. Natursyst. vii. 132. 25. *t.* 103. *f.* 12—M. eximia. Attelabus punctiger. *Payk. Faun. Suec.* iii. 179. 13.

Long.

Long. Corp. 1⅓ lin.

Habitat in Angliæ *Viciâ sepium*, tempore vernali obvium. *Mus.* nostr.

DESCR. CORPUS atrum, glaberrimum.

CAPUT inter oculos sulcato-striatum; sulculis circiter tribus. *Rostrum* mediocre, pone antennas crassius obscurius, apice nitidum. *Antennæ* mediocres, pone medium rostri insertæ: clavâ majusculâ. *Oculi* prominuli.

TRUNCUS subcylindricus, punctulis sine lente forti vix conspicuis levissimè notatus, unde lævior, quàm in plerisque, evadit, anticè paulò angustior, dorso obsoletiùs canaliculatus. *Scutellum* minutum. *Coleoptra* ex globoso obovata, nigro-cærulea, striata: striis punctatis; interstitiis convexiusculis.

Obs.—*In altero sexu rostrum brevius.*

Herbst's figure so happily expresses the characters of this little insect, that it seems not easy to mistake it; yet his description would agree perhaps as well with *Apion foveolatum*, which, as I observed before, was sent me for it from Sweden. It is principally distinguished from the three preceding species by having its rostrum thicker from the point where the antennæ are inserted to the head (a circumstance not omitted in the figure above quoted); by its thorax so slightly punctulate as to appear nearly without points under a single lens; by its elytra, which, taken together, approach more to an obovate shape: besides this, three furrows are very conspicuous between the eyes. It is not uncommon upon *Vicia sepium*, and I do not find it upon any other plant. Major Gyllenhal sends it as *Attel. punctiger* of Paykull: I had before regarded that as synonymous with *Ap. aterrimum*, but I yield to his authority.

30. APION STRIATUM.

A. atrum piloso-subincanum, coleoptris globosis sulcatis, thorace canaliculato. *Tab.* 1. *fig.* 10.

Curculio striatus. *Marsh. Ent. Brit.* i. 249. 30.

Attelabus Pisi. *Fabr. Syst. Eleuth.* ii. 425. 50.

Long. Corp. $1\frac{1}{4}$ lin.

Habitat in Angliâ rarissimum. *Mus.* nostr.

DESCR. CORPUS atrum, pilositate parvâ albicanti obscurum.

CAPUT latiusculum, inter oculos ruguloso-punctatum. *Rostrum* mediocre, nitidiusculum, leviter punctulatum. *Antennæ* mediocres, pone medium rostro insidentes. *Oculi* subprominuli.

TRUNCUS coleoptris multò angustior, punctulatus, dorso canaliculatus. *Scutellum* minutissimum, et vix sub lente conspicuum. *Coleoptra* globosa, profundè sulcata: sulcis punctatis; interstitiis planiusculis.

31. APION IMMUNE.

A. atrum piloso-subincanum, coleoptris globoso-cuneiformibus sulcatis.

Long. Corp. 1—$1\frac{1}{4}$ lin.

Habitat in Angliæ *Spartio* et *Ulice*. *Mus.* nostr.

DESCR. CORPUS atrum, ex pilositate parvâ albicanti subobscurum.

CAPUT inter oculos striatum. *Rostrum* mediocre, leviter punctulatum, nitidum. *Antennæ* mediocres, pone medium rostri insertæ. *Oculi* subprominuli.

TRUNCUS ex globoso teretiusculus, punctulatissimus: punctulis ferè confluentibus, haud canaliculatus, sed puncto majori impresso ante scutellum notatus. *Scutellum* minutissimum. *Coleoptra* ex globoso obcuneata:

ano

ano obtusissimo, sulcata: sulculis punctatis; interstitiis modicè convexis.

Var. β minor; rostro breviori.

This little insect is very nearly related to the preceding; it is however considerably smaller, the head between the eyes has two or three little furrows, the thorax has no dorsal channel, and the elytra, taken together, are longer in proportion. Var. β. is scarcely half the size of α.

32. APION VIRENS.

A. atrum, coleoptris oblongo-ovatis cæruleis viridescentibusve striatis: striâ suturali profundiori, thorace læviusculo.

Var. β.

Herbst. Natursyst. vii. 128. 18. *t.* 103. *f.* 6—E?

Long. Corp. 1¼—1⅓.

Habitat in Angliæ sepibus. *Mus.* nostr.

DESCR. **CORPUS atrum, glabriusculum, nitidiusculum.**

CAPUT vix punctatum, inter oculos rugulosum, in recenti insecto atrum cum levissimâ tincturâ æneâ. *Rostrum* mediocre, nitidum. *Antennæ* mediocres, pone medium rostri insertæ. *Oculi* subprominuli.

TRUNCUS ater, nigrore, in recenti insecto, leviter æneo infecto, nisi sub lente forti vix conspicuè punctulatus, puncto majori dorsali ante scutellum notatus. *Scutellum* minutissimum. *Coleoptra* ex oblongo obovata, cærulea, sulcata: sulculo suturali in medio reliquis profundiori, in sulculis puncta impressa, interstitia sulculorum convexiuscula.

Var. β. minor, capite thoraceque nigro-æneis, elytris viridescentibus.

It is not easy to judge from figures of these minute insects, the

the distinctions of which cannot always be represented by the pencil, what species the author intends: that which Herbst has given of *Apion virens*, would agree equally well with several others; but, in his description, he mentions one circumstance which seems to justify my referring to him for the insect now before us. The head and thorax, he says, have a slight metallic tint, a character observable in both varieties of our *Apion virens*, and not common in the genus; in α. it fades, in the dead specimens, to nearly a black, but in β., which appears to be Herbst's insect, it is more permanent.

33. APION MARCHICUM.

A. atrum, coleoptris oblongo-ovatis atro-cæruleis striatis: striâ suturali profundiori, rostro brevi crassiusculo.

Herbst. Natursyst. vii. 128. 19. *t.* 103. *f.* 7—G?

Long. Corp. $1\frac{1}{4}$ lin.

Habitat in Angliâ. *Mus.* nostr.

DESCR. CORPUS atrum, glaberrimum, nitidiusculum.

CAPUT inter oculos trisulcum. *Rostrum* brevius, crassiusculum. *Antennæ* longiores, mediæ. *Oculi* prominuli.

TRUNCUS subcylindricus, leviter punctulatus: puncto majori dorsali posticè insuper notatus. *Scutellum* minutissimum. *Coleoptra* ex oblongo obovata, cærulea, sulcata: sulculo suturali in medio profundiori, in sulcis puncta impressa.

Obs.—*Sulculi frontales nisi sub triplici lente vix detegendi, interdum omnino absunt.*

This little insect is so similar to the one before it, that I suspect it may be only a sexual variety. The principal difference lies in the thickness and shortness of its rostrum, and in the three

three little furrows usually observable in the space between its eyes. It answers tolerably well to Herbst's figure and description of his *Apion marchicum*, which, he observes, very much resembles *Apion virens*.

34. APION EBENINUM.

A. aterrimum nitidum, coleoptris ovatis sulcatis, thorace lateribus subgibbosis posticè latiùs canaliculato. *Tab.* 1, *fig.* 11.

Apion ebeninum. *Mus.* Dom. Gyllenhal.

Long. Corp. 1¼ lin.

Habitat in Succiâ, Angliâ. Apud Blakenham Magnam prope Gippovicum Julio medio 1806 bis lectum.

DESCR. CORPUS aterrimum, nitidum, glaberrimum.

CAPUT inter oculos, sed vix conspicuè, striatum, punctulis insuper quibusdam notatum, posticè transversè elevatum. *Rostrum* mediocre, apice et medio subdilatatum, leviter arcuatum, sub lente forti punctula minutissima per totam ejus longitudinem sunt conspicienda. *Antennæ* subbreviores, mediæ. *Oculi* subimmersi.

TRUNCUS angustus, anticè et posticè subattenuatus, utrinque anteriùs gibbus, discretè punctulatus, ante scutellum sulco latiori quam in reliquis exaratus. *Scutellum* minutissimum. *Coleoptra* ovata, sulcata: sulcis punctatis; interstitiis vix ipsis sulcis latioribus valde convexis.

Obs.—*Maris rostrum brevius robustius.*

35. APION ASTRAGALI.

A. æneum nitidum, coleoptris oblongo-ovatis cyaneis, thorace canaliculato. *Tab.* 1. *fig.* 12.

Attelabus

Attelabus astragali. *Payk. Faun. Suec.* iii. 180. 15.

Long. Corp. 1½ lin.

Habitat in foliis *Astragali glycyphylli* in Kinnakulle Westro-Gothiæ. *Dom. Gyllenhal. Mus.* nostr.

DESCR. CORPUS æneum seu viridi-æneum, glabrum, nitidum.

CAPUT inter oculos rugulosum. *Rostrum* mediocre, atrum, nitidum. *Antennæ* mediocres, pone medium rostri insertæ. *Oculi* vix prominuli.

TRUNCUS discretè punctulatus, dorso in medio canaliculatus. *Tarsi* nigri. *Scutellum* minutissimum. *Coleoptra* ovata, amœnè cyanea, interdum violacea, striata: striis punctatis interstitiis vix convexis.

Var. β. Elytris viridibus.

This is one of the most elegant species of this genus; it was sent me from Sweden by Major Gyllenhal, from whom Paykull originally received it. *Astragalus glycyphyllus* is common in my neighbourhood, but I have not yet met with this little insect upon it.

36. APION SPARTII.

A. atrum glabrum, coleoptris obovatis, atro-cæruleis, fronte punctatâ, rostro mediocri.

Long. Corp. 1 lin.

Habitat in *Spartio* sed rariùs. *Mus.* nostr.

DESCR. CORPUS atrum, glaberrimum, minùs nitidum.

CAPUT latiusculum, inter oculos punctulatum: punctis confluentibus. *Rostrum* mediocre, filiforme, nitidiusculum, per totam longitudinem punctulatum. *Antennæ* mediocres, mediæ. *Oculi* subimmersi.

TRUNCUS

TRUNCUS vix capite latior, subcylindricus, discretè sed leviter punctatus, puncto insuper majori ante scutellum notatus. *Scutellum* minutum. *Coleoptra* obovata, posticè gibbosiuscula, striata: striis impressè punctatis; interstitiis convexiusculis.

37. APION SPENCII.

A. atrum piloso-obscurum, thorace canaliculato, coleoptris oblongis atro-cæruleis, fronte striata, rostro piloso. *Tab.* 1. *fig.* 13.

Long. Corp. 1¼ lin.

Habitat in Angliâ. A Dom. Spence semel lectum. *Mus.* D. Spence.

DESCR. CORPUS atrum, ex pilositate albidâ obscurum.

CAPUT inter oculos trisulcum. *Rostrum* submediocre, crassiusculum, reliquo corpore magis pilosum. *Antennæ* pone medium rostri in fossulâ insertæ, longiores. *Oculi* magni, ovales, prominuli.

TRUNCUS brevis, anticè angustior, ex globoso teres, punctatus: punctis impressis subconfluentibus, suprà medio canaliculatus, posticè utrinque foveâ obsoletiusculâ. *Coleoptra* obovato-oblonga, atro-cærulescentia, striata: striis concinnè punctatis; interstitiis planis.

This species bears considerable resemblance to the preceding, but it is much larger, and hairy; the eyes are proportionally larger, between which, under a good lens, may be discerned three little furrows, not discoverable in *Apion Spartii*. The thorax also is canaliculate, with larger *puncta*, and more deeply impressed. It stands unique in the collection of my friend William Spence, Esq. F.L.S., whose name it bears; a tribute justly due to one of the most acute and learned entomologists of this island.

38. APION LOTI.

A. nigrum piloso-subincanum, coleoptris obovatis, rostro longiori.

Long. Corp. $1\frac{1}{3}$ lin.

Habitat in Angliæ *Loto corniculato*. *Mus.* nostr.

DESCR. CORPUS nigrum, nitidiusculum, ex pilositate parvâ subincanum.

CAPUT punctulatum: rugulis 2 seu 3 inter oculos. *Rostrum* longius, arcuatum, filiforme, nitidissimum. *Antennæ* breviores pone medium rostri insertæ. *Oculi* subimmersi.

TRUNCUS ex globoso teretiusculus, confluenter punctulatus, puncto majori excavato ante scutellum notatus. *Scutellum* minutum. *Coleoptra* obovata, striata: striis punctatis; interstitiis convexis.

39. APION UNICOLOR.

A. atrum subpilosum, coleoptris oblongis, rostro mediocri subcrassiori.

Long. Corp. $1\frac{1}{4}$ lin.

Habitat in Angliâ. *Mus.* Dom. Spence.

DESCR. CORPUS angustum satis, atrum, subpilosum.

CAPUT thorace paulò brevius, punctulatum, inter oculos bistriatum: striolis approximatis. *Rostrum* mediocre, crassiusculum, leviter punctulatum, reliquo corpore magis pilosum, apice nitidum, medio paulò incrassatum et subtùs tumidulum seu gibbum, suprà inter antennas puncto gemino elevato notatum. *Oculi* subimmersi. *Antennæ* submediocres pone medium rostri insertæ.

TRUNCUS anticè capitis latitudine, posticè transversè subdepressus

depressus et latior, excavato-punctatus, lineolâ ante scutellum exaratus. *Coleoptra* oblonga, apice obtusè subacuminata, sulcato-striata: striis punctatis; interstitiis convexis.

This insect comes very near to *A. Loti*, but the rostrum is considerably thicker, somewhat tumid in the middle, and underneath (just before the insertion of the antennæ) gibbous; it is distinguished likewise, if this circumstance be not accidental, by a pair of minute elevated points between the antennæ. The head, viewed from before, has two little striæ between the eyes; and the thorax has not the smallest tendency to a globose figure.

40. APION ATOMARIUM.

A. atrum piloso-incanum, coleoptris ovatis, rostro longiori, thorace brevi. *Tab.* 1. *fig.* 14.

Apion atomarium *Mus.* Dom. Gyllenhal.

Long. Corp. ¼ lin.

Habitat in Suecià. *Mus.* nostr.

DESCR. CORPUS atrum, totum pilis albicantibus incanum.

CAPUT breve. *Rostrum* longius, valde arcuatum, filiforme, læve, nitidum, glabrum, basi lineâ transversâ elevatiusculâ. *Antennæ* posticæ, breviores. *Oculi* magni, subimmersi.

TRUNCUS brevissimus, ex globoso teretiusculus, posticè paulò latior, lineolâ punctove dorsali ante scutellum aut obsoleto aut nullo. *Coleoptra* ovata, striata: striis punctatis; interstitiis convexiusculis.

This is the most minute species of this genus, with which I am at present acquainted. It was sent me by my liberal friend Major Gyllenhal, and is clearly distinct from every other.

41. APION ATERRIMUM.

A. atrum glabrum, coleoptris subovatis nitidiusculis atro-cæruleis, rostro mediocri.

Curculio aterrimus. *Linn. Syst. Nat. Ed.* 12. 607. 10. *Faun. Suec.* 582.

Apion Æthiops. *Herbst. Natursyst.* vii. 130. 21. *t.* 103. *f.* 9. I.

Long. Corp. 1¼ lin.

Habitat in Suecià, Germaniâ. *Mus.* Linn.

DESCR. CORPUS aterrimum, glabrum.

CAPUT thoracis ferè latitudine, inter oculos rugulosum. *Rostrum* mediocre, filiforme, pone antennas punctulatum, apice nitidiusculum. *Antennæ* mediocres, mediæ. *Oculi* subimmersi.

TRUNCUS punctulatus, lineolâ dorsali nullâ. *Coleoptra* subovata, nitidè nigra seu potiùs atro-cærulea, subsulcata: sulculis concinnè punctatis; interstitiis planiusculis.

The label affixed to the specimen of this insect preserved in the Linnean cabinet appears to be the hand-writing of the younger Linné; it agrees, however, so well with the father's description of his *Curc. aterrimus*, that I have little doubt of its being synonymous with it. That which Fabricius has given for *C. aterrimus* is a very different insect*, belonging to the Linnean division, *Longirostres femoribus dentatis*, which appears to be the same with Mr. Marsham's *Curc. atramentarius*†. Herbst's description of his *Apion Æthiops* answers to our insect in every particular. Mr. Marsham's *Curc. aterrimus* is a different species, which

* *Ent. Syst. Em.* i. b. 439. 189. *Syst. Eleuth.* ii. 486. 225. Rhynchænus.

† *Marsh. Ent. Brit.* i. 293. 163.

I shall

I shall soon notice. Gmelin has omitted *Apion aterrimum* altogether.

42. APION TENUE.

A. aterrimum angustum subglabrum nitidiusculum, coleoptris oblongis, rostro mediocri.

Long. Corp. 1 lin.

Habitat in Angliâ rariùs. *Mus.* nostr.

DESCR. CORPUS tenue, nitidiusculum, aterrimum, nigrore pube quâdam parvâ (nisi sub lente forti vix distinctè conspicuâ) paululùm obscurato.

CAPUT thorace paulò brevius, punctatum punctis confluentibus. *Rostrum* mediocre, nitidum. *Antennæ* sublongiores, pone medium rostro insidentes. *Oculi* prominuli.

TRUNCUS cylindricus, vix capite latior, punctulatus, puncto majori dorsali posticè notatus. *Scutellum* minutissimum. *Coleoptra* oblonga, striata: striis subpunctatis; interstitiis planiusculis.

43. APION SENICULUS.

A. atrum angustum piloso-canescens, coleoptris ovato-oblongis, rostro longiori.

Long. Corp. 1¼ lin.

Habitat in Angliâ semel lectum, in Suecià frequentiùs. *Mus.* nostr.

DESCR. CORPUS tenue, atrum, pilis brevissimis decumbentibus albidis incanum.

CAPUT thorace brevius, inter oculos vix punctatum. *Rostrum* longius, nitidum. *Antennæ* mediocres, pone medium rostri insertæ. *Oculi* prominuli.

TRUNCUS

TRUNCUS posticè paulò latior; anticè margine ex pilis tenuissimè albo, levissimè punctulatus, puncto insuper majori ante scutellum notatus. *Scutellum* minutissimum. *Coleoptra* oblongo-ovata, leniter striata: striis subpunctatis; interstitiis planiusculis.

Obs.—*Alter sexus rostro mediocri.*

This insect and the preceding are very nearly related, but the species now described is quite hoary with down or hair; its head is shorter than that of *Apion tenue*; its thorax proportionally wider, and the rostrum longer. The body of both is remarkably slender.

44. APION CONFLUENS.

A. atrum angustum piloso-subincanum, coleoptris oblongo-ovatis, fronte bisulco, antennis posticis, rostro mediocri. *Tab.* 1. *fig.* 15.

Long. Corp. $1\frac{1}{2}$ lin.

Habitat in Angliâ semel lectum. Ex *Mus.* Dom. Sheppard.

DESCR. CORPUS atrum, tenue, pilositate parvâ leviter incanum.

CAPUT læviusculum, inter oculos sulculis duobus postice approximatis, vel ferè in literæ V figuram confluentibus profundiùs exaratum. *Rostrum* mediocre, nitidum. *Antennæ* posticæ, sublongiores. *Oculi* prominuli.

TRUNCUS capite vix latior, leviter punctulatus, lineolâ dorsali posticâ exaratus. *Scutellum* minutum. *Coleoptra* oblongo-ovata, subnitida, striata: striis levissimè punctatis.

In habit this little *Apion* agrees with *Ap. tenue* and *Seniculus*, it is nevertheless quite distinct from them. It was taken by my indefatigable friend, and the pleasant companion of many an entomological walk, the Rev. Revett Sheppard, F.L.S.

45. APION

45. APION GYLLENHALII.

A. atrum subangustum piloso-obscurum, coleoptris oblongiusculis, antennis piceis, rostro longiori.

Apion Pisi. *Mus.* Dom. Gyllenhal.

Curculio flavipes *β. γ. Payk. Mon. Curc.* 144. 135.

Attelabus flavipes *β. γ. Payk. Faun. Suec.* iii. 182. 17.

Long. Corp. $1\frac{3}{5}$ lin.

Habitat in Suecià, in foliis *Betulæ albæ.* Dom. Paykull. *Mus.* D. Marsham. M'Leay. Nostr.

DESCR. CORPUS atrum, subangustatum, pilositate quâdam cinerascenti obscurum.

CAPUT valde angustum, vix rostro latius, elongatum, confluenter punctulatum, inter oculos ruguloso-striatulum, posticè transversè elevatum. *Rostrum* longius, filiforme, leniter arcuatum, punctulatum. *Antennæ* mediocres, mediæ, nigro-piceæ basi rufescentes. *Oculi* immersi.

TRUNCUS brevis admodum, ferè cylindricus, excavato-punctatus: punctis subconfluentibus, lineolâ dorsali posticè exaratus. *Coleoptra* ex ovato oblonga, striata: striis punctatis; interstitiis planiusculis.

Var. *β.* Corpore minùs piloso, elytris atro-cæruleis.

Major Gyllenhal sends me this insect for *Attelabus Pisi* of Fabricius, and likewise regards it as synonymous with *Apion Æthiops* of Herbst: yet, with all deference to the authority of so judicious and skilful an entomologist, I must venture to dissent from him upon this occasion, for this insect does not appear to me to answer the description of either of these authors. Fabricius says of his *Att. Pisi* "coleoptris globosis," a character which will not well suit *Apion Gyllenhalii*, whose elytra, taken together,

together, are oblong rather than globose, but agrees perfectly with *Apion striatum*, which I have given above as synonymous with it. Herbst's description of *Apion Æthiops* agrees better with *Apion aterrimum*, to which I have referred it, than with the insect before us, for, he says, the thorax has no impressed *stria*; and, moreover, so accurate and minute a describer would not have overlooked the hair on the body, or the unusual colour of the antennæ. On these accounts I have given this as a new species, and named it after the kind and liberal friend and correspondent, as well as learned and experienced entomologist, who sent it me.

Paykull has considered it as a variety of *Apion flavipes*, expressing, however, a suspicion that it may be distinct: it has certainly no relation, except being of the same genus, to that species. Major Gyllenhal regards Var. β. (which is *Attel. flavipes* γ of Paykull) as Herbst's *Ap. marchicum*; the insect which I have given above under that name, is more nearly related to *Ap. virens*, which makes me consider my reference as most correct, since Herbst says that it is uncommonly like that species.

46. APION MELILOTI.

A. atrum subangustum, coleoptris obovatis viridescenti-cæruleis, antennis mediis, rostro longiori.

β. *Apion angustatum. Mus.* Dom. Gyllenhal.

Long. Corp. 1¼ lin.

Habitat in Angliæ *Trifolio Meliloto* rariùs. β. in Suecià. *Mus.* nostr.

DESCR. CORPUS atrum, tenuiusculum, pilositate parvâ rariùs conspersum.

CAPUT vix thorace brevius, punctulatum, inter oculos rugulosum

rugulosum foveolâ nisi a latere vix conspicuâ subimpressum. *Rostrum* longius, filiforme, valde arcuatum, nitidum. *Antennæ* mediocres, mediæ. *Oculi* subprominuli.

TRUNCUS punctulatus, posticè lineolâ dorsali exaratus. *Scutellum* minutissimum. *Coleoptra* obovata, virides-centi-cærulea, sulcato-striata: striis punctatis; interstitiis planiusculis.

Var. β piloso-subincanum, elytris corpori concoloribus. An idem?

47. APION VIOLACEUM.

A. atrum glabrum, coleoptris oblongo-obovatis violaceis, rostro brevi crassiusculo. *Tab.* 1. *fig.* 16.

Apion cyaneum. *Herbst. Natursyst.* vii. 108. 7. *t.* 102. *f.* 7—G. *Arch.* iv. *t.* 24. *f.* 5.

Curculio Fagi Var. *Mus.* Linn.

Long. Corp. 1¾ lin.

Habitat in Angliâ, Suecià. Apud Kesgrave prope Gippovicum in terram apud Hunstanton in Norfolciâ in *Rumice* lectum. *Mus.* nostr.

DESCR. CORPUS atrum, glaberrimum.

CAPUT thorace paulò brevius et angustius, inter oculos ex punctis confluentibus rugulosum et obsoletè canaliculatum. *Rostrum* brevius, crassum magìs quàm in hoc genere plerumque accidit, punctulatum: apice summo lævi nitidissimo. *Antennæ* posticæ, sublongiores: clavâ admodùm crassâ. *Oculi* subprominuli.

TRUNCUS cylindricus ferè, punctulatissimus, puncto insuper excavato dorsali ante scutellum notatus. *Scutellum* minutissimum. *Coleoptra* ex oblongo obovata, amœnè violacea, molliuscula, ex pube parvâ (nisi sub lente

lente forti haud conspicuâ) obscura, sulcato-striata: striis punctatis; interstitiis convexiusculis.

Herbst's *Apion cyaneum* appears to be a variety of this insect with blue elytra. It cannot be *Attel. cyaneus* of Fabricius, as this author indeed suspects, because it wants the tubercles on the thorax, peculiar to that species; which also is clearly not *Curc. cyaneus* of Linné, though given as such; for two characters mentioned in *Faun. Suec.* (581) are quite at variance with the Fabrician insect, viz. *Pedes ferruginei. Scutellum punctum album.* There is no specimen of *Curc. cyaneus* now in the Linnean cabinet. *Apion violaceum*, in that collection, is gummed upon the same paper with *Apion Fagi*, from which it should seem that Linné regarded it (although he no where notices it) as a variety merely of that insect. It certainly agrees with it in habit and shape, but the different colour of the legs and elytra seems to furnish a sufficient distinction. There are no beech trees in the neighbourhood of the place where I first took it.

48. APION HYDROLAPATHI.

A. atrum glabrum, coleoptris oblongo-obovatis cæruleis viridescentibusve, rostro brevi crassiusculo. *Tab.* 1. *fig.* 17.

Curculio Hydrolapathi. *Marsh. Ent. Brit.* i. 249. 33.

Long. Corp. 1⅓—1¼.

Habitat in Angliæ *Rumicibus Lapathis* frequens. *Mus.* nostr.

DESCR. CORPUS atrum, glaberrimum.

CAPUT thoracis ferè longitudine et latitudine, punctatum, inter oculos ex punctis confluentibus confertim striatum. *Rostrum*, pro hoc genere, brevissimum, nec capite longius, punctulatissimum, obscurum, suprà planiusculum. *Antennæ* pone medium rostri insertæ, longiores: clavâ crassiusculâ. *Oculi* subprominuli.

TRUNCUS subcylindricus confluenter punctulatissimus, lineolâ

lineolâ dorsali, posticè impressiori, longitudinaliter exaratus. *Scutellum* minutissimum. *Coleoptra* ex oblongo obovata, cærulea aut viridescentia, nitidiuscula, striata: striis punctatis; interstitiis planiusculis.

This insect is nearly related to the preceding species, but the rostrum is shorter in proportion; the thorax, instead of an impressed point, has a longitudinal furrow; the elytra of the male are blue, and those of the female green; the furrows also of the elytra are more lightly drawn, with flat interstices. When I originally sent this species to Mr. Marsham, I had observed it only upon water dock; I have since taken it, and more plentifully, upon the common dock, so that perhaps its trivial name might better be *Apion Lapathorum*.

49. APION RUMICIS.

A. atrum subglabrum nitidiusculum, coleoptris obovatis obtusis violaceis nigrisve, rostro mediocri.

Long. Corp. 1¼ lin.

Habitat in Angliæ *Rumice obtusifolio*. *Mus.* nostr.

DESCR. CORPUS atrum, subglabrum, nitidiusculum.

CAPUT breve, punctulatum. *Rostrum* mediocre, punctulatum, crassiusculum. *Antennæ* mediæ, sublongiores: clavâ crassiusculâ. *Oculi* vix prominuli.

TRUNCUS discretè punctulatus, lineolâ dorsali posticè exaratus. *Scutellum* minutum, at satis conspicuum. *Coleoptra* obovata, atro-violacea, obtusa, striata: striis punctatis; interstitiis planiusculis.

Var. β. Totum atrum, rostro quàm in α crassiori et paulò breviori.

50. APION AFFINE.

A. atrum glabrum nitidiusculum, coleoptris obovatis obtusis viridescentibus, rostro breviori crassiusculo.

Long. Corp. $1\frac{1}{4}$ lin.

Habitat in Angliâ a Dom. Spence lectum. *Mus.* D. Spence. Nostr.

DESCR. CORPUS atrum, glabrum, nitidulum.

CAPUT magnum satis, punctulatum. *Rostrum* brevius, admodùm crassum, subfiliforme. *Antennæ* mediæ mediocres; clavâ crassiusculâ. *Oculi* subprominuli.

TRUNCUS ex globoso teretiusculus, excavato-punctulatissimus, ante scutellum puncto majori seu lineolâ exaratus. *Coleoptra* ex globoso obovata, viridescentia, apice obtusa, striata: striis punctatis; interstitiis planis.

Obs.—*Alter sexus rostro mediocri tenuiori.*

This species is closely allied to the preceding; it differs principally in size, being considerably larger; the head is bigger in proportion; the thorax inclines more to a globose form, and the elytra are of a different colour, and proportionally wider.

51. APION BREVIROSTRE.

A. atrum obscurum subpilosum, coleoptris subovatis, rostro breviori crassiusculo.

Herbst. Natursyst. vii. 130. 22. *t.* 103. *f.* 10—K ?

Long. Corp. $1\frac{1}{3}$ lin.

Habitat in Angliâ, Suecià, Germaniâ. *Mus.* nostr.

DESCR. CORPUS atrum obscurum, pilositate parvâ leviter incanum.

CAPUT punctatum, inter oculos ex punctis confluentibus rugulosum. *Rostrum* brevius, crassiusculum, punctatum, apice

apice nitidum. *Antennæ* mediæ, longiores: clavâ crassiusculâ. *Oculi* vix prominuli.

TRUNCUS subcylindricus, excavato-punctatus, lineolâ dorsali posticè exaratus. *Scutellum* minutissimum. *Coleoptra* subovata, sulcata: sulculis punctatis; interstitiis planiusculis.

There is considerable affinity between the present species and that which precedes it; but it is hairy, the rostrum is shorter and thicker, and the furrows of the elytra are more deeply drawn. It was sent me by Major Gyllenhal as the *Apion brevirostre* of Herbst, yet it does not altogether agree with that author's description; for he says of his: "The thorax is rather broad, without the impressed stria. The elytra have a viridi-æneous tint, and fine furrowed striæ—it is not easy to see whether they are punctured." These characters are not to be found in our insect, in which the thorax is narrow, with an impressed stria behind. Its elytra have no viridi-æneous tint, and the punctures of the striæ are sufficiently visible.

52. APION HOOKERI.

A. atrum obscuriusculum, thorace globoso. *Tab.* 1. *fig.* 18.

Long. Corp. 1¼ lin.

Habitat in Angliâ, a Dom. W. J. Hooker bis lectum. *Mus.* D. Hooker. Nostr.

DESCR. CORPUS atrum, ex pube parvâ haud facilè conspicuâ obscurum.

CAPUT brevissimum, inter oculos læviusculum. *Rostrum* mediocre, pone antennas paulò incrassatum. *Antennæ* mediocres, posticæ. *Oculi* subimmersi.

TRUNCUS globosus, punctulatissimus posticè lineolâ vix bene

bene conspicuâ exaratus. *Coleoptra* oblongiuscula, certo situ et sub luce viriditate levissimâ imbuta, striata: striis punctatis; interstitiis planis.

This species seems nearly related to a North American *Apion*, described by Herbst under the name of *Apion nigrum*, (*Natursyst.* vii. 132. 24. *t.* 103. *f.* 11—L.) but if, by the term "granulated," he means that the thorax is covered with elevated points, his insect is materially different from ours.

I am indebted to the kindness of an excellent naturalist, Mr. W. J. Hooker of Norwich, who first discovered it, for this species. Many other nondescripts have been taken by him and his brother Mr. J. Hooker, and I name this insect after them as a memorial of my sense of their ability and exertions in the service of my favourite department in natural history.

53. APION LÆVIGATUM.

A. atrum læviusculum, coleoptris ovatis violaceis obsoletè striatis.

Long. Corp. 1¼ lin.

Habitat in Angliâ rarissimè. In arenario quodam prope Gippovicum a Dom. Sheppard bis lectum. *Mus.* D. Sheppard.

DESCR. CORPUS lanceolatum, glaberrimum, læviusculum, atrum.

CAPUT inter oculos striatulum: striolis 4 seu 5. *Rostrum* longius. *Antennæ* longiores, posticæ, nitidiusculæ: clavâ parvâ admodùm.

TRUNCUS cylindricus: dorso lævi; lateribus punctulatis. *Pedes* pilis albidis rariùs adspersi. *Scutellum* minutissimum. *Coleoptra* obovata, amœnè violacea, substriata: striis levissimè impressis attamen punctatis.

This insect, taken only by Mr. Sheppard, is one of the most distinctly

distinctly marked, and at the same time one of the most elegant, species of the genus. It appears never to have been noticed before.

54. APION ONOPORDI.

A. atrum glabrum, coleoptris ovatis nitidè viridi-æneis cærulescentibusve, thorace scabro.

Long. Corp. $1\frac{3}{4}$ lin.

Habitat in Angliæ *Onopordo* frequens. *Mus.* nostr.

DESCR. CORPUS atrum, glabrum, nitidiusculum.

CAPUT breve, punctatum, posticè elevatum, anticè depressum, inter oculos rugulosum seu punctatum punctis confluentibus. *Rostrum* mediocre, apice nitidum, pone antennas paulò incrassatum. *Antennæ* sublongiores, posticæ: clavâ ovatâ. *Oculi* prominuli.

TRUNCUS subcylindricus, punctis magnis valde excavatis confluentibus scaber, posticè lineolâ dorsali profundiùs exaratus. *Scutellum* minutissimum. *Coleoptra* ovata, viridi-æneo nitidula, sulcata: sulculis subpunctatis; interstitiis planiusculis.

Obs.—*Alt. Sex. Rostro longiori.*

Var. β. Elytris viridi-cærulescentibus.

——— γ. ——— atro-cæruleis.

Panzer's figure of what he gives for *Attelabus Craccæ* of Fabricius (*Faun. Germ. Init.* 20. *t.* 10.) is very similar to this insect; but since his is found upon *Vicia Cracca* and other vetches, and ours only upon *Onopordum Acanthium*, I imagine we mean distinct species. Sometimes the hinder part of the head is drawn into the thorax, in which case it does not show the elevated part.

55. APION

55. APION CARDUORUM.

A. atrum, coleoptris ovatis obscuris viridescentibus cæruleisve, rostro basi utrinque gibbo. *Tab.* 1. *fig.* 19.

Curculio Sorbi. *Marsh. Ent. Brit.* i. 244. 15.

Curculio cyaneus. *De Geer.* v. 252. 41.

Attelabus æneus β. *Payk. Faun. Suec.* iii. 180. 14.

Apion gibbirostre. *Mus. Dom. Gyllenhal.*

Apion Alliariæ. *Herbst. Natursyst.* vii. 104. 3. *t.* 102. *f.* 3—C?

Long. Corp. 1¼ lin.

Habitat in Angliæ *Carduis* frequens, item in Suecia. *Mus.* nostr.

DESCR. CORPUS atrum, pilositate parvâ obscurum.

CAPUT inter oculos striato-rugulosum, foveâ leviter impressum. *Rostrum* longius, punctulatum, apice nitidum, basi latius, et insuper utrinque dente brevi seu tuberculo acutiusculo, quo insidunt antennæ, munitum. *Antennæ* longiores, posticæ. *Oculi* subprominuli.

TRUNCUS cylindricus, leviter punctulatus, posticè lineolâ dorsali exaratus. *Scutellum* minutissimum. *Coleoptra* oblongo-ovata, viridescentia aut cærulea, ex pilositate obscura, striata: striis punctatis; interstitiis planiusculis.

That this is the *Curculio cyaneus* of De Geer, and *Attelabus æneus*, variety β, of Paykull, appears not only from their respective descriptions, but also from the circumstance of their finding it upon the thistle; (it is the only species I find upon that plant in this country) yet is it neither *Curculio cyaneus* of Linné, (for reasons before assigned) nor a variety of *Attelabus æneus* of Fabricius, for it is considerably smaller than the latter insect, and wants the remarkable furrow between the eyes which distinguishes it; its elytra also are of a different colour, with punctured

punctured striæ. The *Apion* Herbst has given for *Curculio Alliariæ* Linn., comes very near to this; but he describes the furrows of the elytra as not being punctured, which renders his synonym dubious.

56. APION RADIOLUS.

A. atrum glabrum, coleoptris ovatis acutis nigro-æneis, antennis posticis, rostro mediocri.

Curculio Radiolus. *Marsh. Ent. Brit.* i. 247. 25.

Long. Corp. $1\frac{3}{4}$ lin.

Habitat in Angliâ. Domina Hill. *Mus.* Dom. Marsham.

DESCR. CORPUS atrum, glabrum, radium textoris quodammodò referens.

CAPUT inter oculos rugulosum. *Rostrum* mediocre, modicè crassum. *Antennæ* posticæ.

TRUNCUS levissimè punctulatus. *Coleoptra* ovata, acuta, nigro-ænea, subsulcata: sulculis vix conspicuè punctatis; interstitiis convexiusculis.

57. APION OXURUM.

A. atrum, coleoptris ovatis acutis cæruleis viridescentibusve, antennis posticis, rostro mediocri.

Curculio aterrimus. *Marsh. Ent. Brit.* i. 244. 14.

Long. Corp. 2 lin.

Habitat in Angliæ *Malvis* frequens. *Mus.* nostr.

DESCR. CORPUS atrum, nitidum, pilositate parvâ rariùs adspersum.

CAPUT inter oculos ex punctis confluentibus rugulosum. *Rostrum* mediocre, nitidum, punctulatum, medio subattenuatum. *Antennæ* longiores, posticæ. *Oculi* subprominuli.

TRUNCUS levissimè et creberrimè punctulatus, posticè lineolâ dorsali exaratus. *Scutellum* minutissimum. *Coleoptra* ovata, acuta, atro-cærulea, striata: striis subpunctatis; interstitiis convexiusculis.

Obs.—*Alter sexus variat corpore magìs piloso, capite punctulâto, et inter oculos insuper obsoletè canaliculato, rostro subfiliformi punctulis admodùm conspicuis obscurato, et, postremò, elytris viridescentibus.*

Mr. Marsham entertained doubts, whether this was the *Curculio aterrimus* of Linné: in my opinion, that which I have described above from the Linnean cabinet possesses a stronger claim to be considered as the true one; but the description in *Fauna Suecica*, unless the original specimen had existed, is too general to decide the question. Linné says, however, *Elytra punctis striata*, which will scarcely agree with *Apion oxurum*, in which the punctures in the furrows of the elytra are not easily discoverable. The term *punctis striata*, taken in strictness, should signify that the elytra had no furrows, but merely punctures arranged in lines, a circumstance observable in no insect of this genus, that I have ever examined.

58. APION ÆNEUM.

A. atrum glabrum, coleoptris ovatis acutis æneis viridescente-cæruleisve, fronte canaliculatâ.

Herbst. Natursyst. vii. 101. 1. *t.* 102. *fig.* 1—A.

Attelabus æneus. *Fabr. Ent. Syst. Em.* i. b. 389. 23. *Syst. Eleuth.* ii. 423. 37. *Panz. Ent. Germ.* 296. 11. *Payk. Faun. Suec.* iii. 179. 14.

Curculio æneus. *Marsh. Ent. Brit.* i. 243. 13. *Gmel.* 1748. 132. *Vill. Ent. Eur.* i. 187. 41. iv. 267. *Payk. Mon. Curc.* 134.

Var. β.

Var. β.

Curculio chalceus. *Marsh. Ent. Brit.* i. 243. 12.
Attelabus cyaneus. *Panz. Faun. Germ. Init.* 20. *t.* 12.

Long. Corp. 2 lin.

Habitat in Angliæ *Malvis* et *Columniferis*. *Mus.* nostr.

DESCR. CORPUS atrum, glaberrimum, nitidiusculum.

CAPUT posticè lævissimum, inter oculos punctulatum, sulco intermedio profundiùs exaratum. *Rostrum* paulò brevius, crassiusculum, punctulatissimum, apud antennarum insertionem utrinque tumidulum. *Antennæ* paulò longiores, pone medium rostro insidentes. *Oculi* subprominuli.

TRUNCUS leniter et creberrimè punctulatus, anticè submarginatus, posticè lineolâ ante scutellum exaratus. *Scutellum* minutum. *Coleoptra* ovata, æneo nitidula, striata: striis impunctatis; interstitiis convexiusculis.

Var. β. Rostro breviori quam in α, thorace posticè puncto impresso nec lineolâ, elytris viridescente-cæruleis.

Mr. Marsham observes under his *Curculio æneus*, speaking of its resemblance to the preceding species (*Curculio chalceus*)—*An species distincta? An sexûs differentia?* When we consider that these are in almost every respect the counterparts of each other, even to the little channel drawn visibly between the eyes, differing scarcely in any thing except a slight variation in the colour of the elytra, we shall be inclined to adopt the latter opinion, especially when the following circumstance, that they feed together upon the same plants, is taken into consideration. Influenced by these reasons, I have given them as varieties. Variety β is evidently Panzer's *Attelabus cyaneus*, who took it upon *Alcea rosea*, a plant upon which it abounds, as well as on other

Columniferæ, in our gardens. Had it the tubercles upon the thorax, I should consider it as the *Attelabus cyaneus* of Fabricius, to whose description in other respects it answers, and for the *habitat* of which he gives the mallow.

59. APION HÆMATODES.

A. rufum, oculis nigris, rostro brevissimo.

Curculio coccineus. *Mus. Lesk.* 18. 381? *Gmel.* 1742. 558?

Long. Corp. 1¼—1½ lin.

Habitat in Angliâ. In gramine sub *Ulice Europæo* semel plura inveni. *Mus.* nostr.

DESCR. CORPUS rufum, obscurum, pilis brevissimis, nisi sub lente vix conspicuis, rariùs consitum.

CAPUT thorace vix brevius, punctulatum. *Rostrum* brevissimum, (in hoc genere) crassiusculum, punctulatum, apice nitidum. *Antennæ* longiores, mediæ: clavâ majusculâ. *Oculi* nigri, prominuli.

TRUNCUS subcylindricus, leviter punctulatus, lineolâ aut puncto majori nullo. *Scutellum* minutissimum. *Coleoptra* oblongiuscula, striata: striis punctatis; interstitiis vix striis latioribus, convexis.

This species, which is noticed by Herbst as a variety of *Apion frumentarium*, appears nevertheless distinct from it, not only on account of differences of character, which I shall notice hereafter, but also from the different situations in which they are usually found; this, namely, upon the ground, and the other upon the dock: such is Herbst's remark from Hedwig, which is confirmed by my own observation, for I usually find *Apion hæmatodes* upon the earth; the other is common upon the dock in this neighbourhood, and Mr. Dillwyn finds it upon the same plant in Wales.

60. APION

60. APION FRUMENTARIUM.

A. sanguineum, oculis nigris, thorace subgloboso: posticè canaliculato.

Herbst. Natursyst. vii. 107. 6. *t.* 102. *f.* 6—F.

Curculio frumentarius. *Linn. Syst. Nat. Ed.* 12. 608. 15. *Faun. Suec.* 586. *Marsh. Ent. Brit.* i. 242. 11. *Gmel.* 1745. 15. *Vill. Ent. Eur.* i. 177. 12. *Act. Nidros.* iii. 391. 10. *Faun. Etrusc.* 301. *Helw.* 301. *Faun. Frid.* 10. 94. *Payk. Mon. Curc.* 130. *Act. Stockh.* 1750. 186. 1. *Lewenh. Arc.* 183. *Aug.* 6. *p.* 83. *f.* 1.

Curculio sanguineus. *De Geer.* v. 251. 40.

Attelabus frumentarius. *Fabr. Ent. Syst. Em.* i. b. 392. 35. *Syst. Eleuth.* ii. 427. 59. *Payk. Faun. Suec.* iii. 177. 10. *Faun. Ing.* 320. *Panz. Ent. Germ.* 298. 24. *Faun. Germ. Init.* 20. *t.* 14. *Walck. Faun. Paris.* i. 237. 15. *Latr. Hist. Nat. &c.* xi. 90.

Rhinomacer frumentarius. *Ent. Helv.* 109. 1. *t.* 13. *f.* 1, 2.

Long. Corp. 2¼ lin.

Habitat in Europâ frequens. In frumento diutiùs asservato pessimus. *Linn.* Imago in *Lapathis* passim obvia. *Mus.* nostr.

DESCR. CORPUS lætè sanguineum, ex pilositate quâdam parvâ obscurum.

CAPUT vix thorace brevius, punctulatum. *Rostrum* brevius, crassiusculum, basi punctulatum, apice læve nitidum. *Antennæ* longiores, pone medium rostri insertæ: clavæ articulis subdistinctis. *Oculi* nigri, prominuli.

TRUNCUS subglobosus, anticè marginatus, punctulatissimus, posticè canaliculatus. *Scutellum* minutissimum. *Coleoptra* ex oblongo obovata, sulcata: sulculis punctatis; interstitiis convexis vix sulculis latioribus.

Var. *β.* ex sanguineo flavicans.

This insect, although very similar to the last, differs from it in some material characters. The colour is more of a blood red;

red; the rostrum is longer in proportion; the thorax is of a different shape, channelled behind, with a margin next the head; the clava also of the antennæ is more distinctly jointed; besides this, it is three times as big as the other.

Fabricius, in his *Systema Eleutheratorum*, has placed *Curculio purpureus* of Linné in the synonymy of *Attelabus frumentarius*, regarding, I suspect, my *Apion frumentarium* as that insect, and *Apion hæmatodes* as the Linnean *Curculio frumentarius*, the former being of a much brighter colour than the latter: but neither of these will agree with the term by which Linné defines the rostrum of his *C. purpureus*—"*longissimum*," since both of them have a very short rostrum. What the true *C. purpureus* is, seems not now to be known: there is no specimen of it in the Linnean cabinet. Petiver's specimen was found in England, but it does not appear to have been taken since his time. According to Linné, *Apion frumentarium* is very destructive to the grain of wheat. I generally find it upon the common dock, which other entomologists have done both here and on the continent, as was observed under the preceding species. The larva and imago may perhaps live in different situations.

ADDENDUM.

After the Synopsis Specierum, and nearly the whole of this paper were printed, I met with the following fine nondescript species, which ought to follow *Apion affine*, *n.* 50.

61. APION LIMONII.

A. æneum, suprà purpurascente-cupreum, coleoptris obovatis, rostro crassiusculo. *Tab.* 1. *fig.* 20.

Long. Corp. 2 lin. γ. 1 lin.

Habitat in Angliæ *Statices Limonii* foliis. Apud-Holme-juxta mare

mare in Norfolciâ Jul. ex. et Aug. in 1807. a nobis sæpiùs lectum. Apud Cley in eodem com. a Dom. J. Hooker in collibus arenosis maritimis. *Mus.* Dom. J. Hooker. Nostr.

DESCR. CORPUS pilis brevissimis decumbentibus, nisi sub lente vix conspicuis, consitum.

CAPUT longum satis, posticè læve cupreum, inter oculos punctatum: punctis confluentibus purpurascente-violaceum, subtùs æneum. *Rostrum* brevius, crassum, punctulatum, purpurascente-violaceum, subtùs atrum gibbum punctis excavatis utrinque notatum: disco lævi. *Antennæ* mediæ, longiores, nigræ. *Oculi* majusculi, subimmersi, nigri.

TRUNCUS ferè cylindricus, cupreo nitidulus, leviter et discretè punctulatus, posticè foveolâ seu puncto magno excavato notatus. *Pectus* et *Epigastrium* æneo nitidula, punctata. *Pedes* reliquo corpore magìs pilosi, obscuriùs purpurascente-cuprei. *Coleoptra* ex globoso obovata, purpurascente-cupreo nitidula, striata: striis punctatis; interstitiis planiusculis.

ABDOMEN punctatum, obscurè purpurascente-cupreum: segmento primo æneo nitidulo.

Var. β. Trunco purpurascente-cupreo.

—— γ. Minus, totum cupreum: thorace canaliculato. An idem?

I met with this insect in the sea marshes at Holme-juxta-mare in Norfolk (a village remarkable for producing many scarce plants and insects) upon the leaves of *Statice Limonium*, when that plant was just beginning to blossom. Mr. J. Hooker took it upon the sand-hills at Cley in the same county. It is perfectly distinct from every other, and is by far the most beautiful and splendid species of the genus that I have yet seen.

ADDITIONAL

ADDITIONAL OBSERVATION UPON APION NIGRITARSE, *n.* 18.

At Hunstanton, upon the Lynn Channel, I found this insect not very scarce upon the common dock, as well as upon the hazle-nut; and at Holme I met with it upon the bramble and hawthorn. These facts render its *habitat* very uncertain.

The rostrum of the other sex is entirely black.

REFERENCES TO THE FIGURES.

TAB. I.

Fig. 1.	Apion Ulicis,	*n.* 1
2.	—— Malvæ,	— 3
3.	—— vicinum,	— 8
4.	—— cærulescens,	— 10
5.	—— subulatum,	— 11
6.	—— nigritarse,	— 18
7.	—— pallipes,	— 20
8.	—— Fagi,	— 21
9.	—— punctifrons,	— 28
10.	—— striatum,	— 30
11.	—— ebeninum,	— 34
12.	—— Astragali,	— 35
13.	—— Spencii,	— 37
14.	—— atomarium,	— 40
15.	—— confluens,	— 44
16.	—— violaceum,	— 47
17.	—— Hydrolapathi,	— 48
18.	—— Hookeri,	— 52
19.	—— Carduorum,	— 55
20.	—— Limonii,	— 61

II. *Description*

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W. K. delin.

W. K. delin.