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The Canadian Entomologist.

VOL. V.

LONDON, ONT., OCTOBER, 1873.

No. 10

EDITORIAL.

Our readers will observe, from the alteration in our title-page, that a change has been made in the occupant of the Editorial chair of this publication. At the annual general meeting of the Society, held at London on the 25th ult., the Rev. C. J. S. Bethune tendered his resignation of the office of General Editor, and Mr. Wm. Saunders was unanimously elected to take his place. This change of personality will make no difference in the character and management of this journal, except in the direction of improvement in material and greater regularity in issue. For some time past Mr. Bethune has desired to vacate the position of Editor—not from any diminution in interest in the publication, or from any cooling in zeal and attachment to the cause of Entomology—but solely because his position as Head Master of Trinity College School, entails upon him so much labour and engrosses so much of his time, that he cannot satisfactorily perform the duties that properly devolve upon the Editor of the CANADIAN ENTOMOLOGIST. Since the removal of the head quarters of the Society to London, the labour attending upon the issue of this publication has gradually fallen more and more upon Mr. Saunders, though largely shared in by Mr. Reed, the late energetic Secretary-Treasurer of the Society.

The retiring Editor—who will continue to aid in the maintenance of the journal, as far as his time will permit—begs to offer his most cordial thanks to all those kind friends who have rendered him so much assistance in the past, and to request that the same hearty support and co-operation may be afforded to his friend and successor.

ANNUAL ADDRESS

OF THE PRESIDENT OF THE ENTOMOLOGICAL SOCIETY OF ONTARIO, 1873.

To the Members of the Entomological Society of Ontario :

GENTLEMEN,—Ten years have now gone by since a few of us met at the house of Professor Croft, in Toronto, and organized this Society. We commenced with less than five and twenty members, and now our Secretary informs us that we have over three hundred names upon our roll. A twelve-fold increase in a decade of years is certainly an evidence of progress upon which we may well congratulate ourselves, and which ought assuredly to stimulate all our members to use their utmost exertions for the maintenance and improvement of the Society. Those of us who from year to year have been entrusted by you with positions of office and duty in the Society, cannot but feel that it is for the best interests of our institution that more of its members should be led to take an active part in its work, and thus secure more efficiency in all our departments, and more certainty of a permanent development of all our operations. Hitherto the work has fallen upon a few of us, and we have endeavoured to perform it as efficiently and heartily as we can ; but we find that year after year our own professional and other duties make increased demands upon our time and attention, so that with all the desire in the world to devote ourselves to our favourite branch of Natural Science and the operations of the Entomological Society, we are unable to do so to the same extent as in earlier years. On this account—not from any diminution of zeal and interest on our own part—we are most anxious that more of you should take your share in the work and aid us in maintaining unimpaired the good reputation that the Society has already achieved. Each one, we are sure, can do something, and the united efforts of us all must assuredly be productive of satisfactory and permanent results.

Our sister Society—the Fruit Growers' Association of Ontario—we rejoice to see is rapidly growing in public appreciation and favour ; its members' list of over 3000 names, its well-attended meetings in various parts of the country, its judicious distributions of fruit for experimental

purposes, and the vigour and zeal of its executive, are all matters upon which we may well congratulate its President, Directors and Members. That it may go on and prosper, and extend its work throughout our land, till every resident of the Dominion enjoys the fruit of his own vine and his own fruit-tree, is our most hearty aspiration.

During the past year but little has occurred in an Entomological point of view that calls for especial notice on this occasion. A year ago I ventured to call your attention to the subject of Specific and Generic Nomenclature, which has been so unpleasantly exciting the minds of Entomologists both here and almost everywhere else. My remarks, I was gratified to find, elicited a good deal of discussion in the pages of the CANADIAN ENTOMOLOGIST, and brought forth a very able paper upon the subject from the pen of Mr. W. H. Edwards, of West Virginia. The question, however, has by no means yet been set at rest and will no doubt continue to exercise us all for some time to come. At the Dubuque Meeting of the American Association for the Advancement of Science, a sub-section of Entomology was formed, and a committee of its adherents specially appointed to consider and report upon a series of rules upon nomenclature. Unhappily—owing to various circumstances—no report was drawn up, though, I must in justice state, that my friend Mr. C. V. Riley, of St. Louis, took a great deal of pains to elicit the views of the members and to draw up some conclusions from them. Last month, at the Portland meeting of the Association—which, to my very great disappointment, unavoidable engagements prevented me from attending—a new committee was appointed to re-consider the subject, and we trust that some definite rules will have been decided upon by its members before the meeting of next year at Hartford, Conn.

You will all, I have no doubt, be gratified to learn that, upon the suggestion of the sub-section of Entomology, the American Association unanimously passed a resolution inviting our Entomological Society of Ontario, as well as the American Entomological Society, to hold a general meeting of our members at Hartford next year during their annual session. I trust that this invitation will be cordially accepted and that a large number of us may there meet our American friends and enlarge and strengthen those cordial feelings of scientific brotherhood which have so long pleasantly existed between us. I may add, as a notable token of the estimation in which our branch of science is now held, that the Association will meet next year under the presidency of our ablest American Entomologist—Dr. J. L. Leconte, of Philadelphia.

You have already heard from our Secretary-Treasurer's Report the satisfactory condition of our finances and other business matters; I need not therefore trespass further upon your patience and attention. Heartily thanking you, gentlemen, for your kindness towards myself and my colleagues during our term of office, and for the honour which you have conferred upon me by calling me to preside over you,

I have the honour to remain, with best wishes for the advancement and prosperity of the Society,

Your humble and obedient servant,

CHARLES J. S. BETHUNE,

President Entomological Society of Ontario.

Trinity College School, Port Hope, Sept., 1873.

ON THE IDENTITY OF GRAPTA DRYAS WITH COMMA.

BY W. H. EDWARDS, COALBURGH, W. VA.

On the 30th of July Mr. T. L. Mead, at Coalburgh, took two females of *Grapta Dryas* and tied them in a muslin bag to a branch of Hop-vine. The result was a large number of eggs, laid on the leaves and in the bag. On the 5th the eggs were all hatched. The larvæ we carried through safely, and on the 21st the first ones began to change to chrysalids. In course of the next three days all were changed, upwards of sixty. Towards maturity some of the larvæ were white, as represented in the plate of *Dryas*, in the "Butterflies of North America." The others were black, like the larvæ represented in plate of *Comma* in the same volume. On the 30th the imagines began to appear, and nearly all are true *Comma*; but six are *Dryas*, two ♂ and four ♀. The relation of the two forms to each other is therefore similar to that of the two forms of *Interrogationis*. The name of the species should be *G. comma*, Harris, and the one form the type figured in my plate as *comma*, should be called *comma var. Harisii*, and the other *comma var. dryas*, the two being equal varieties of one species and not one a variety of the other.

MICRO - LEPIDOPTERA.

BY V. T. CHAMBERS, COVINGTON, KENTUCKY.

Continued from Page 176.

EVIPPE, *gen. nov.*

Primaries.—The costa attains the margin before the middle: the subcostal, which is faint towards the base, sends a branch to the margin from before the middle, two others near the end of the cell, another beyond the cell and becomes furcate before the tip, one of the branches going to each margin. Cell closed by a very short oblique discal vein without branches. The median sends two branches to the margin before the end of the cell, and becomes furcate behind it. Submedian furcate at base, Wing lanceolate, with moderately long ciliae.

Secondaries—Narrower than primaries, short, tip produced and margin deeply incised beneath it; costal margin slightly excised from before the middle to the tip. Costal rather short, attaining the margin at the excision. Subcostal simple, rather faint towards the base, attaining the margin just before the tip. Cell unclosed. No discal nervure, but an independent branch which arises near the median and going to the hind margin. Median three branched, the first arising near its middle (and rather minute) from the second. Submedian and internal short and indistinct.

Head smooth with appressed scales. Tongue moderately long, scaled at the base. Maxillary palpi microscopic. Labial palpi overreaching the vertex, second and third joints of about equal length, the second being slightly thickened with scales beneath. Antennæ simple, about half as long as the wings.

In repose the antennae are carried upon the wings, which are deflexed, the head is applied to the surface, and the posterior end of the abdomen and wings are elevated. It runs very rapidly, and is easily disturbed. The structure, especially that of the antennae and wings, allies it to *Trypanisma* Clcm., but there is something in its appearance which reminds one of a

Gracillaria, and the pattern and shades of coloration approach those of *G. salicifoliella*. It is, however, nearer to *Agnippe*, ante v. 4, p. 194, than to *Trypanisma*. The neuration of *Agnippe* is incorrectly given at v. 4, p. 194. That of the primaries is identical with that of this species, except that it lacks the first subcostal branch of this species; and that of the secondaries is identical with this species. I do not feel certain that I am right in separating them generically. *Gelechia? difficilisella*, ante v. 4, p. 192, belongs to the same group, near to if not in *Trypanisma*.

E. prunifoliella. N. sp.

Labial palpi silvery white, except the base, which is dusky, and the tip, which is dark gray brown. Head silvery white. Antennae dark grayish brown. Thorax dark grayish brown on each side above the wings with a broad median longitudinal white streak from the base to the apex and continued thence along the posterior margin of the primaries to the cilia. Primaries (except the posterior margin as just stated) dark grayish brown, the line between the two colors scalloped, or rather the white portion sends two or three teeth or processes into the brownish part, one of which is just before the ciliae and is opposite to a costal white streak; dorsal ciliae dusky silvery dusted with dark brown. Secondaries pale yellowish fuscous.

When the insect is in repose it appears to be dark gray brown, with a wide white streak from the mouth over the head, thorax and wings to the dorsal ciliae. Al. ex. $\frac{3}{8}$ inch. Kentucky.

I do not know whether the larva is at any time a miner or not. It feeds upon the leaves of the Red Wild Plum (*Prunus Americana*), where I have found it in September feeding under the tip of the leaf turned downwards. The larva is pale green, immaculate. I have frequently found on the under side of the same leaves a tentiform mine which I suspected to be that of *Lithocolletis crataegella* Clem., but I have never succeeded in rearing the insect from it, and possibly it may be made by this species in its younger stages.

EIDOTHOA, gen. nov.

The insect upon which I found this genus resembles *Evippe prunifoliella* so closely that I have hesitated much as to the propriety of separating them generically. The differences most marked are in the

neuration. The discal cell of the primaries is wider in this species and the discal vein is of course longer, and the median, instead of being three branched with the third branch furcate behind the cell, divides into three approximate simple branches about the end of the cell. In *Evippe* the median vein of the hind wings is three branched, in this species it is two branched.

The antennae in this species are also a little longer than in *E. pruni-foliella*.

In other respects it does not seem necessary to separate the species.

This species was found in my study, where it had probably escaped from some of my breeding cages.

E. vagatiolla. *N. sp.*

Palpi with alternate annulations of white and dark grayish brown, five of each color, the tip being white and the base gray brown; face white. Vertex yellowish dusted with grayish brown; antennae fuscous; thorax dark brown and white, about equally intermixed; primaries dark brown faintly dusted with white, the dorsal margin being white, dusted with dark brown, especially towards the apex, where it might more properly be called brown streaked with white. There is an irregular indistinct whitish streak on the costa near the base, and a white spot on the extreme costa behind the middle; the white color prevails in the apical portion of the costal margin, but is dusted with brown, and the apex is white with a rather large dark brown apical spot or patch. Cilia pale grayish dusted with white. Legs and under surface whitish, with patches of grayish brown. *Al. ex.* $\frac{1}{2}$ inch. Kentucky.

HELICE, *gen. nov.*

This genus and the species on which I have founded it approaches *Trypanisma* Clemens, *Gelechia difficilisella*, and more remotely *Agnippe* and *Evippe*.

Wings horizontal in repose. Primaries lanceolate; the costal attains the margin before the middle; the subcostal sends to the costal margin two branches before the end of the cell, one from the end, another behind it and becomes furcate before the tip, delivering a branch to each margin.

Cell narrow, closed by a short, oblique, and faint discal vein. The median sends a branch to the dorsal margin before the end of the cell, and becomes furcate behind it. Submedian furcate at base.

Secondaries narrower than the primaries, apex long and sharply pointed, with the posterior margin suddenly and deeply incised beneath it and the anal angle rounded; costa emarginate from the middle to the apex. The costal vein attains the margin about the middle. Subcostal straight, attaining the margin just before the tip. Median dividing into three branches. Cell unclosed. (In *Trypanisma* Dr. Clemens says the cell is closed by a faint discal nervure, but I have not been able to detect it in this genus, nor in *Evippe*, *Agnippe* or *G. difficilisella*, all of which are closely allied to *Trypanisma*.) *T. prudens*, Clem., I have never seen. *Evagora*, Clem., belongs to the same group.

Tongue scaled, longer than the anterior coxæ. Maxillary palpi small but distinct under the lens; labial palpi long, slender, over-arching the vertex, with the third joint almost acicular and longer than the two others united; the second joint is laterally slightly compressed and slightly thickened towards its apex. Antennæ simple, about two-thirds as long as the wings. Head and face smooth. Vertex short and face scarcely retreating.

H. pallidochrella. *N. sp.*

Head, thorax and primaries pale grayish ochreous, minutely dusted with fuscous. Primaries with a large transverse dark brown spot before the middle and a smaller one behind it, both appearing bronzy in some lights. Cilia reddish yellow; palpi dusted with pale fuscous; antennæ annulate with dark brown. *Al. ex.* $\frac{1}{3}$ inch. Kentucky in June.

CECOPHORA? Zell.

I am not certain that the insect described below is properly included in this genus, though it approaches closely to it. It is also very near to *Callima* Clem., but I do not feel satisfied that *Callima* should itself be separated from *Cecophora*, and Dr. Clemens seems to have entertained the same doubt when he diagnosed the genus.

The following are the generic characters of this species:—

Primaries lanceolate; the costal vein attains the margin about the middle; just before the middle the subcostal sends a slightly sigmoid vein to the margin and from near the end of the cell two other shorter branches,

and proceeds to the *dorsal margin at the apex*. The discal cell is wide towards the end and the subcostal comes down obliquely towards the middle of the wing, from its second branch to its apical one. The cell is closed by a curved discal vein which gives off two branches to the dorsal margin. The median vein is nearly straight to the end of the cell, where it is deflexed to the dorsal margin, after having given off two branches from near the end. The median is furcate at the apex and attains the dorsal margin about the middle.

(This description is according to Dr. Clemens' system of nomenclature of the neuration. A more intelligible description, with the sketch of the wing before me, would be—median nearly straight to the end of the cell, which is widest near the end and is closed by the oblique curvature of the costal vein to its junction with the median. Nine branch veins are given off from the cell, the first from about the middle of the subcostal and three others from about the end of the cell, all going to the costal margin, the last one at the apex; four other branches to the dorsal margin from about the end of the cell, and one from the median before the end of the cell.)

Posterior wings lanceolate, or rather wedge-shaped, the costa slightly excised from the apical third; the costal vein attains the margin at the excision; the subcostal distinct from the end of the cell to the apex, faint before the end of the cell; the discal cell closed by a faint rather long oblique discal vein which gives off two branches to the dorsal margin, the superior branch being faintly continued through the cell to the base, the inferior branch is given off close to the median, which is three branched, the two last being approximate in their origin; submedian distinct; cell very wide.

Ce. borcasella. *N. sp.*

Palpi reddish brown; antennae dark brown, annulate with white. Primaries bright golden; a reddish brown spot margined behind with white crosses the base and is continued along the *extreme* costa nearly to the apex. About the basal fourth is a large costal red brown spot white margined behind, and about the middle is a larger one margined with white before and behind; opposite the space between these two spots is a larger dorsal red brown spot, white margined before and behind, its white margin being continuous with the white margin of the second costal spots. It is also connected with *each* of the costal spots by a narrow red

brown line. These spots are all large. A rather wide red brown line extends around the apex at the base of the ciliae, and is connected about the beginning of the *dorsal* ciliae with the second *costal* spot by a short somewhat oblique red brown line. The shape of the two costal spots and the dorsal one and the oblique line just mentioned is such as to include between the *three* spots on the costal margin a nearly oval transverse golden yellow patch, and to divide the apical portion of the wing into two nearly circular golden yellow patches, the largest of which is on the costa and has a small red brown spot near its centre, and this central spot is connected with the red brown of the apical margin by a line of mixed white and brown scales. Ciliae golden yellow. *Al. ex.* $\frac{3}{8}$ inch.

Since the preceding description was written I have carefully examined fresh specimens of *C. argenticinctella* Clem., and I fail to discover wherein it differs from *Æcophora*. The neuration is exactly that of *Æ. pseudo-spretella* as figured by Mr. Stainton in *Ins. Brit. v. 3.* *Æ. borcasella* only differs in having the apical branch of the subcostal of the primaries simple instead of furcate.

LIST OF COLEOPTERA OF ST. LOUIS COUNTY, MISSOURI.

BY S. V. SUMMERS, M. D., NEW ORLEANS, LA.

(Continued from Page 170.)

STAPHYLINIDÆ.

FALAGRIA, Mann.

- dissecta, *Er.*
- venustula, *Er.*
- bilobata, *Say.*
- cingulata, *Lec.*

HOPLANDRIA, Kraatz.

- pulchra, *Kraatz.*

HOMALOTA, Mann.

- trimaculata, *Er.*
- aemula, *Er.*
- dichroa, *Grav.*

HOMALOTA, Mann. (continued.)

- recondita, *Er.*
- lividipennis, *Mann.*
- opacula, *Fauvel.*

TACHYUSA, Er.

- rigrilla, *Lec.*

ALEOCHARA, Grav.

- fuscipes, *Fab.*
- var. lata, *Grav.*
- bimaculata, *Grav.*
- opaca, *Fauvel.*

- ALEOCHARA, *Grav. (continued.)*
 picea, Fauvel.
 binotata, Fauvel.
 puberula, Klug.
 GYROPHAENA, *Mann.*
 vinula, Er.
 dissimilis, Er.
 socia, Er.
 DINOPSIS, *Matth.*
 americanus, Kraatz.
 LEUCOPARYPHUS, *Kraatz.*
 silphoides, Kraatz.
 COPROPORUS, *Kraatz.*
 ventriculus, Kraatz.
 laevis, Lec.
 scitulus.
 TACHINUS, *Grav.*
 nebulatus, Fauvel.
 fimbriatus, Grav.
 TACHYPORUS, *Grav.*
 jocosus, Say.
 maculipennis, Lec.
 acaudus, Say.
 brunneus, Er.
 cribricollis.
 CONOSOMA, *Kraatz.*
 crassum, Lec.
 basale, Er.
 scriptus, Fauvel.
 BOLETOBIUS, *Leach.*
 niger, Er.
 pygmaeus, Mann.
 cinctus, Er.
 cincticellis, Er.
 dimidiatus, Er.
 BRYOPORUS, *Kraatz.*
 flavipes, Lec.
 rufescens, Lec.
 testaceus, Lec.
 MYCETOPORUS, *Mann.*
 americanus, Er.
 ACYLOPHORUS, *Nordm.*
 flavicollis, Sach.
 pronus, Er.
 QUEDIUS, *Steph.*
 fulgidus, Er.
 capucinus, Er.
 molochinus, Er.
 caenobita, Fauvel.
 ferox? Horn. (specimen lost.)
 CREOPHILUS, *Steph.*
 villosus, Kirby.
 LEISTOTROPHUS, *Perty.*
 cingulatus, Kraatz.
 STAPHYLINUS, *Linn.*
 maculosus, Grav.
 cinnamopterus, Grav.
 vulpinus, Nordm.
 badipes, Lec.
 mysticus, Er.
 tomentosus, Grav.
 cicatricosus, Lec.
 OCYPUS, *Kirby.*
 ater, Er.
 BELONUCHUS, *Nordm.*
 ephippiatus, Er.
 PHILONTHUS, *Curtis.*
 cyanipennis, Er.
 aeneus, Nordm.
 hepaticus, Er.
 blandus, Er.
 ventralis, Nordm.
 promptus, Er.
 debilis, Er.
 palliatus, Er.
 thoracicus, Er.
 lomatus, Er.
 micans, Nordm.

- PHILONTHUS, *Curtis*. (*continued*.)
- fulvipes, *Nordm.*
 - brunneus, *Er.*
 - aterrimus, *Er.*
 - confertus, *Lec.*
 - apicalis, *Er.*
 - sobrinus, *Er.*
 - pæderoides, *Lec.* (*pictus*, *Fauvel*.)
 - quadricollis, *Fauvel*.
 - mylabrinus, *Nordm.*
 - atomus, *Grav.*
 - noviboraensis—(*Horn* ?)
- XANTHOLINUS, *Serr.*
- obsidianus, *Mels.*
 - cephalus, *Say.*
 - emmesus, *Say.*
 - pusillus, *Sachse.*
- LEPTOLINUS, *Kraatz*.
- ruficollis, *Lec.*
- DIOCHUS, *Er.*
- schaumii, *Kraatz.*
- LATHROBIUM, *Grav.*
- concolor, *Lec.*
 - punctulatum, *Lec.*
 - puncticolle, *Kibby.*
 - brevipenne, *Lec.*
 - armatum, *Say.*
 - tenuis, *Lec.*
 - collare, *Er.*
 - longiusculum, *Er.*
 - dimidiatum, *Say.*
 - nigriceps, *Dej. Cat.*
 - rubripenne, *Fauvel.*
- CRYPTOBIUM, *Mann.*
- bicolor, *Er.*
 - melanocephalum, *Er.*
 - sellatum, *Lec.*
- CRYPTOBIUM, *Mann.* (*continued*.)
- pallipes, *Nordm.*
 - badium, *Er.*
 - despectum, *Lec.*
 - latebricola, *Nordm.*
- STILICUS, *Latr.*
- angularis, *Er.*
 - dentatus, *Er.*
- LITHOCHARIS, *Er.*
- corticina, *Er.*
 - confluens, *Er.*
 - ochrea, *Grav.*
- SUNIUS, *Steph.*
- prolixus, *Er.*
 - linearis, *Er.*
 - binotatus, *Er.*
 - longiusculum, *Er.*
 - monstrosus, *Lec.*
- PAEDERUS, *Grav.*
- littorarius, *Grav.*
- PINOPHILUS, *Grav.*
- picipes, *Er.*
 - parvus, *Lec.*
 - opacus, *Lec.*
- PALAMINUS, *Er.*
- testaceus, *Er.*
- STENUS.
- semicolonus, *Lec.*
 - punctatus, *Er.*
 - colon, *Say.*
 - stygicus, *Say.*
 - colonus, *Er.*
 - egenus, *Er.*
 - annularis, *Er.*
 - arculus, *Er.*
 - chalceus, *Fauvel.*
 - juno—

INSECTS OF THE NORTHERN PARTS OF BRITISH AMERICA

COMPILED BY THE REV. C. J. S. BETHUNE, M. A.

From Kirby's Fauna Boreali-Americana: Insecta.

(Continued from Page 132.)

312. COCCINELLA QUINQUE-SIGNATA *Kirby*.—Plate vii, fig. 1. Length of body 3 lines. A single specimen taken in Lat. 65°.

Body oblong-hemispherical, very minutely and thickly punctured; underneath black and a little downy. Head black with an acute white spot in the forehead between the eyes; antennae obscurely rufous, dusky at the base and tip; prothorax black, anterior angles and intermediate streak white; elytra tawny yellow with an abbreviated band common to both at the base, an oblique discoidal abbreviated band and apical dot, black; four distant lateral triangular white spots mark the breast.

313. COCCINELLA QUINQUE-NOTATA *Kirby*.—Length of body $3\frac{1}{2}$ lines. A single specimen taken in Lat. 54°. Taken also by Dr. Bigsby in Canada.

[231.] Very like the last, but shorter and more hemispherical. Two subtriangular transverse spots between the eyes, apex of the nose, dot at the sinus of the eyes, and anterior angles of the prothorax whitish-yellow; basal band of the elytra broadest at the suture, the two other black spots are of equal size and placed transversely, and each forms an abbreviated band, falling far short of the suture and the lateral margin, so as to be scarcely more than two transverse spots; scutellar angle of the elytra paler than the rest: the breast has no white spots. In other respects it is exactly like *C. 5-signata*.

314. COCCINELLA TRICUSPIS *Kirby*.—Length of body $2\frac{1}{4}$ lines. Several specimens taken in the Journey from New York to Cumberland-house.

Body black, punctured. Head with two irregular transverse yellow spots between the eyes; antennae pale rufous, black at the tip: prothorax with the anterior angles and a slender portion of the anterior margin

yellow, the black part forming a large three-lobed spot; the middle lobe being the longest and truncated, the lateral ones shorter and rounded; elytra tawny-rufous, paler and almost yellow at the base and sides, where there is a black band common to both elytra not reaching the lateral margin, which anteriorly has a double sinus so as to form three triangular lobes or points in the band; towards the apex of each elytrum is another irregular black band, which reaches neither the suture nor the margin.

315. *COCCINELLA INCARNATA Kirby*.—Plate vii, fig. 7. Length of body 2 lines. A single specimen taken in Lat. 65°.

[232.] Body black. Mouth and its organs and antennae reddish; prothorax flesh-coloured with two large subquadrangular black spots, separated by a narrow flesh-coloured stripe, which occupy almost all the disk: elytra flesh-coloured, taken together with eleven roundish rather large black spots, three of which are common to both elytra, viz. 3, 4, 3, 1, the common spot at the apex is transverse; legs black with the base of the thighs and tibiae, tarsi, sides of the abdomen, and anus testaceous.

This species seems to come near *C. borealis* of Thunberg, but it differs in colour and the number and disposition of the spots.

FAMILY PIMELIADÆ.

316. *PIMELIA ALTERNATA Kirby*.—Plate v, fig. 9. Length of body $6\frac{1}{2}$ lines. A single specimen taken at Carlton-house, Lat. 53°, in April.

[233.] Body dull-black, oblong, naked. Head minutely punctured; antennae shorter than the prothorax; prothorax widest in the middle, subquadrangular with the sides rounded, minutely but not very thickly punctured, with some slight impressions in the disk: scutellum short, wide, rounded at the apex; elytra with six elevated granulated lines alternately more pronounced, besides the suture and marginal one separating the epipleura, which meet just above the apex; epipleura granulated: posterior legs much longer than the four anterior.

Mr. Say says of his *P. rotunda* that it was the first of that genus found on the New Continent; that above described furnishes therefore a valuable addition to the American insect Fauna. Africa appears to be the metropolis of the genus, though several species have been found in Russian Tartary.

[A species of *Eleodes*, synonymous with Say's *Eleodes (Blaps) tricostata*.

FAMILY TENEBRIONIDÆ.

317. UPIS CERAMBOIDES *Linn.*—Length of body 8–8½ lines. A pair taken in the month of April, in Lat. 65°. Taken also in Canada by Dr. Bigsby. [Abundant throughout Canada; taken by Agassiz's Expedition on Lake Superior.]

Body dull-black, narrow, naked, minutely punctured. Head nearly round depressed, porrected; eyes lateral, kidney-shaped; nose circumscribed by the segment of a circle; antennae a little shorter than the prothorax, joints obconical, four last lentile-shaped; prothorax a little wider than the head, oblong with rounded sides; scutellum rounded at the apex; elytra taken together wider than the prothorax, a little dilated beyond the middle, and then sloping to the apex, which is acute; very unequal with numerous irregular deep impressions and rugosities, variously separated by a number of elevated lines or obtuse ridges running confusedly in various directions; legs long; thighs incrassated; tibiae and tarsi slender.

[234.] 318. TENEBRIO MOLITOR *Linn.*—Length of body 7½ lines. Taken in Nova Scotia by Capt. Hall.

Body oblong-linear, minutely and numerously punctured, a little glossy, naked, above piceous, underneath rufo-piceous. Head uneven, nearly orbicular; anteriorly rufo-piceous; antennae and palpi rufo-piceous; prothorax transverse, sides rounded with a reflexed margin; posterior margin wavy, just above which, on each side, is a roundish impression; posterior angles acuminate: scutellum transverse, subacuminate: elytra scarcely wider than the prothorax, slightly furrowed, furrows punctured with the interstices transversely somewhat wrinkled, and most numerously and minutely punctured; shoulders short, compressed and incrassated; cubit curved.

[An introduced European species that has spread all over Canada and the Northern States, and has become a great pest to millers, flour dealers and house-keepers.]

TENEBRIO PENNSYLVANICUS *Knoch.*—Length of body 8–9 lines. Several specimens taken in Lat. 54°; it was also sent me by Dr. Harris.

[235.] Body long, rather widest towards the anus, black, minutely punctured, naked, not glossy. Head somewhat quadrangular, longer than in the preceding species, uneven; prothorax nearly square with a minute impression above the scutellum; posterior margin wavy; lateral very slender and a little rounded; scutellum subtriangular; elytra with nine rows, including the marginal one, of punctures, and an abbreviated one at the base next the suture; under a powerful lens the interstices are minutely but not thickly punctured: the shoulders are scarcely thicker than the thighs.

[Belongs to *Nyctobates* Guen.; very abundant throughout Canada.]

ANNUAL MEETING OF THE ENTOMOLOGICAL SOCIETY OF ONTARIO.

The third annual general meeting of the Society was held at the rooms, London, Ontario, on Thursday afternoon, Sept. 25th, 1873. The President, the Rev. C. J. S. Bethune, M. A., in the chair.

The minutes of the previous meeting were read and confirmed.

The Secretary-Treasurer then read the financial statement, showing a balance of \$171.27 on hand.

On motion this report was received and adopted.

The President then delivered his annual address, a copy of which will be found on another page.

Officers for the ensuing year were then elected, as follows:—

President, Rev. C. J. S. Bethune, M. A., Port Hope; Vice-President, Mr. E. B. Reed, London; Secretary-Treasurer, Mr. Joseph Williams, London. Council—Mr. Wm. Saunders, London; Mr. R. V. Rogers, Kingston; Rev. Canon Innes, London; Mr. Geo. W. Bowles, Montreal; Mr. J. M. Denton, London. Auditors—Mr. C. Chapman, London; Mr. J. H. Griffiths, London.

The Secretary read a letter from Mr. Caulfield, of Montreal, on behalf of the Entomologists resident there, requesting permission to form a Branch Society in that city. This was most cordially given, and the Secretary was instructed to convey to Mr. Caulfield the best wishes of the parent Society for the future success of the Montreal Branch.

The Rev. C. J. S. Bethune having declined to act as Editor any longer, Mr. Wm. Saunders was appointed in his stead.

The following Editing Committee were duly elected : Rev. C. J. S. Bethune, M. A., and Messrs. Reed and Williams.

In accordance with clause 2, section 2 of the Constitution, the two following gentlemen were elected Honorary Members: Mr. V. T. Chambers, Covington, Kentucky ; Mr. P. R. Uhler, Baltimore, Maryland.

The following were elected Ordinary Members : Mr. John Wilkie, Guelph ; Mr. William McAllan, Woodstock ; Mr. Samuel Anderson, Wyoming,

A communication was read by the President in regard to the following resolutions, passed at the late meeting of the American Association for the Advancement of Science :—

“ We, the undersigned Entomologists, assembled at the 22nd meeting of the Amer. Assoc. for the Advancement of Science, held at Portland, hereby respectfully petition the American Entomological Society of Philadelphia, and the Entomological Society of Canada, to appoint yearly meetings to be held at the same times and places with the annual meetings of the American Association. The undersigned are moved to this memorial from the considerations, that such prospective action of the Societies would ensure the annual assemblage of a large number of Entomologists resident over a wide extent of territory, and also practically enlarge the sphere and increase the usefulness of these Societies.”

“ Resolved—That the American Association for the Advancement of Science hereby endorses the accompanying memorial, and invites the Entomological Societies to call yearly meetings of their members in accordance with the request therein contained.”

After some discussion Mr. Saunders moved, seconded by Mr. E. B. Reed—“ That the Entomological Society of Ontario has heard with much pleasure the above resolutions of the American Association for the Advancement of Science, and will gladly do everything in its power to carry out the proposed arrangements and facilitate the annual meeting of American Entomologists.”

“ That we hereby tender our hearty thanks to the American Association for their cordial invitation, and that the Secretary be requested to forward a copy of this resolution to the above Association.”

EDITORIAL SUMMARY.

In the *American Naturalist* for September we find two very interesting papers on Entomological subjects. The first by Prof. C. V. Riley, on "Controlling Sex in Butterflies," in which he shows, we think pretty conclusively, by the results of a number of experiments which he has instituted, that the theory advanced by Mrs. M. Treat in the March number of the *Naturalist*, to the effect that the relative proportions in the sexes of butterflies can be controlled by the quantity of food given, is untenable. Mrs. Treat contended that by half starving a brood of larvæ you would obtain as a result either exclusively males or a very large proportion of such, while by liberal feeding the reverse would be the case, the gentler sex greatly preponderating. Prof. Riley thus sums up his results: "On the whole, if these experiments indicate anything, they indicate that where more males than females are obtained from stunted larvæ, it is attributable to the fact that the females, being largest and requiring most nourishment, succumb most readily under such treatment; rather than that the sexual characteristics are modified and determined by such treatment."

The second paper is the "Third Annual Report on the Injurious and Beneficial Insects of Massachusetts," by A. S. Packard, Jr.

The author states that at a low estimate there are probably upwards of 50,000 species of insects in the United States, the proportions in the different families being roughly estimated as follows:—Hymenoptera (bees, wasps, ichneumon flies, sawflies, &c.) 10,000; Lepidoptera (butterflies and moths,) 5,000; Diptera (two-winged flies,) 10,000; Coleoptera (beetles,) 10,000; Hemiptera (bugs, &c.) 10,000, with several thousand species of Orthoptera (grasshoppers, &c.) and Neuroptera (dragon flies, caddis flies, &c.) A large number of these insects are as yet undescribed, so that in the mere determination, classification and arrangement of these vast hosts of animated creatures, an immense task has to be performed for which the present number of working Entomologists is entirely insufficient, there being, the author states, but about thirty in this country who publish anything relating to insects. Hence the more important work of studying the history and habits of the various species is necessarily very much interfered with.

With regard to insectivorous birds it is said that they seem to have certain fancies of their own as to what they will eat among insects. The canker-worm, which appears to be avoided by most birds, is eaten in large numbers by doves, and the martin will store up in its nest quarts of the common striped beetle of the potato, to the exclusion of other insects.

Some interesting details are given in reference to the history and mode of life of the May Bug, *Lachnosterna fusca*, and also the Goldsmith Beetle, *Cotalpa lanigera*, both destructive to the roots of the strawberry. The Bean Weevil, an insect which seems to be largely on the increase in New England, is noticed, and some suggestions given in regard to checking its further spread. The seventeen year Locust and other species of Locusts are also referred to, as well as several other less injurious as well as beneficial insects.

A DISTINGUISHED FRENCH VISITOR.—At the September 9th meeting of the Philadelphia Academy of Natural Sciences, among the distinguished visitors present were Prof. C. V. Riley, of St. Louis, and Dr. J. E. Planchon, professor of botany at Montpellier in France, the latter of whom is now in this country under authority of the French Government, to investigate our grape diseases. By invitation of the President, Dr. Ruschenber, Prof. Riley gave an account of the *Phylloxera* or grape vine root-louse, with his most recent discoveries in regard to the same. He had little doubt but the insect was at the root of most diseases that attack the grape in this country, as it was certainly in Europe. Prof. Leidy inquired of Mr. Riley the true position of the insect in scientific classification; Prof. Riley replied that it was not yet well settled. Its appearance brought it somewhere near the aphids, but it did not have successive broods from one impregnation; aphids did. In this respect it approaches *Coccus*. He thought it between the two families.

Prof. Planchon described the ravages of the insect on the grape-roots in France, and thought them less destructive on the roots of American species of grapes than the European; and one of the objects of his mission was to ascertain this fact definitely, so that in Europe some American vines might be used as stocks for their vineyards.

It was clear from the fact, that the European vines had been but recently attacked by it, and had suffered so severely from it; while in America—the home of the insect—the wild vines had done tolerably well

for so many ages, that the *Vitis vinifera* with it was more of a favorite. He excused himself from any lengthy remarks on account of his limited English, and would briefly say that he agreed entirely with Prof. Riley's views regarding it.

Mr. Thomas Meehan gave a history of grape-culture and grape-diseases in Pennsylvania from the earliest time to the present, and showed that the failures had never been satisfactorily explained on any theory sometimes given, such as change of climate, or depletion of the soil. There were always some facts or figures which rendered every previous theory inadmissible to his mind, as he had frequently stated in other places. Prof. Riley's insect discovery, however, met all the requirements of the case, so as to give an air of possibility to Mr. Riley's views, such as no other theory has possessed. That when we saw the foreign grape and others which often did perfectly well for years in one locality, and then failed, it seemed absurd to suppose that the climate or soil suddenly gave out; but a sudden incursion of a brood of root-insects was a cause that could have such a sudden effect.—*Gardener's Monthly*.

LEAF-CUTTER BEE.—For five summers a rose-leaf-cutter bee has built her nest in a narrow-spouted watering-pot in my garden, and I have just heard of another nest, found in the touch-hole of a gun belonging to our volunteer artillery. My books on entomology only mention these bees' nests as found in earth or cavities of walls; therefore I venture to record the above as rather unusual localities.—*J. C. in Hardwick's Science Gossip*.

ADVERTISEMENTS.

EXCHANGE.—I am desirous to exchange English for Canadian or American Lepidoptera. I should also be glad to exchange living pupæ of many British Lepidoptera for pupæ of American species. J. C. WASSERMAN, Beverly Terrace, Cullercoats, North Shields, England.

COLEOPTERA FOR SALE.—A number of Rocky Mountain Coleoptera will soon be for sale in sets by JOHN AKHURST, 19, Prospect Street, Brooklyn, N. Y.