

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/  
Couverture de couleur

Coloured pages/  
Pages de couleur

Covers damaged/  
Couverture endommagée

Pages damaged/  
Pages endommagées

Covers restored and/or laminated/  
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/  
Pages restaurées et/ou pelliculées

Cover title missing/  
Le titre de couverture manque

Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées

Coloured maps/  
Cartes géographiques en couleur

Pages detached/  
Pages détachées

Coloured ink (i.e. other than blue or black)/  
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/  
Transparence

Coloured plates and/or illustrations/  
Planches et/ou illustrations en couleur

Quality of print varies/  
Qualité inégale de l'impression

Bound with other material/  
Relié avec d'autres documents

Continuous pagination/  
Pagination continue

Tight binding may cause shadows or distortion along interior margin/  
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Includes index(es)/  
Comprend un (des) index

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/  
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Title on header taken from: /  
Le titre de l'en-tête provient:

Title page of issue/  
Page de titre de la livraison

Caption of issue/  
Titre de départ de la livraison

Masthead/  
Générique (périodiques) de la livraison

Additional comments: /  
Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below /  
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# The Canadian Entomologist.

---

---

VOL. V.

LONDON, ONT., SEPTEMBER, 1873.

No. 9

---

---

## ON THE GENUS CATOCALA.

BY AUG. R. GROTE., BUFFALO, N. Y.

### *Catocala Meskei*, Grote.

Forewings dentate, pulverulent, of a rather lighter grey than *C. unijuga*. Median lines black, single, not very distinct. A whitish space before the large bisannulate concolorous reniform; sub-reniform likewise whitish, closed, joined to the t. p. line, the latter jagged but without very prominent discal teeth, making a deeper and narrower sinus above vein than in *C. unijuga*. Subterminal upright, dentate, shade (preceding the blackish line) distinct. Terminal line appearing as black lunulated interspaceal marks. Hind wings bright red, somewhat pinkish. The black median band is straight, not regularly curved as in *C. parta*, and straighter than in *C. unijuga*, rather narrow, nowhere greatly excavate, rounding and narrower on the interspace between veins 1 and 2 opposite the excavation of the marginal band, arrested at vein 1, but a few blackish scales mark its continuance towards internal margin. Marginal band narrower than in *C. unijuga*. Ciliae white, with a few red scales at base, especially at apices. Beneath the median band of the hind wings is narrower than above, with the same peculiarities, constricted at veins 2 and 5, and continued by scattered scales beyond vein 1. Expanse 78 m. m.

Lent me by Mr. O. Meske, after whom I name the species, from near Albany, N. Y., and who writes me that it has been taken in considerable numbers by a collector in that vicinity.

NOTE 1.—Mr. Walker's description of *C. junctura* applies to the secondaries of *C. meskei*, but the color is not "red lead, orange-red towards the base," nor is there any "large elongated apical spot," nor

“red marginal lunules.” The fore wings are also very evidently different in tint and color of median spots, while from my recollection of Mr. Walker's type, it was much nearer *C. unijuga* than the present species seems to be.

NOTE 2.—In looking over my paper on this genus, in the Transactions of the American Entomological Society, I find that I have stated in reference to *C. nebulosa*, that “Mr. Edwards compares the secondaries of this species quite wrongly with *C. cerogama*.” In reality, Mr. Edwards nowhere directly alludes to *C. cerogama*. I should have written that Mr. Edwards describes the secondaries in such a manner as to lead one to suppose that he intended a species resembling *C. cerogama*, and my idea is correctly expressed in my original description of *C. ponderosa*. I am sorry that in repeating my idea from memory, without referring to former papers, I should have used words not in literal accordance with the facts.

NOTE 3.—The median band of the hind wings in *C. parta* is curved, and occasionally a few dark scales are visible along the cross vein above. Darker specimens of *C. parta*, exhibiting every peculiarity of the species, the apical streak, characters of the hind wings, etc., have occurred about Buffalo with the paler, more usual specimens, and seem to be Mr. Strecker's “nov. ? var.” *perplexa*; it seems to me that an assumption of bastardy is unnecessary to account for so slight a variation. Mr. Strecker's statement that M. Guenee mistook *C. relicta* for *C. fraxini* must be based on an erroneous comprehension of my quotation of that author. So excellent an Entomologist as M. Guenee could not have made such an error. *Fraxini* was doubtless sent him with an erroneous locality. M. Guenee always shows an appreciation of the slightest differences in separating European and American specimens throughout his great work, and here the difference is excessive. Occasionally we see *Acherontia atropos* incorrectly referred to as occurring in America, nor can in this case any of our Sphingidæ have been mistaken for it. Mr. Strecker criticises the coloring of *subnata*; this plate was published plain and drawn without being intended for coloring; the few copies colored for private distribution are not properly the subject of public criticism. Mr. Strecker's figures, however, *are*, and the coloring of the hind wings of *antinympa*, fig. 7, and *unijuga*, fig. 9, is so bad that I should doubt his determinations were it not that he has taken his information from the collection of the American Entomological Society, which represents my identifications.

NOTE 4.—*Catocala Walshii*, Edwards, is still unknown to me. I believe the types perished in the Chicago fire. It must be nearly allied to *unijuga*. Mr. Edwards' description of the fore wings, "Primaries yellowish brown, clouded between the transverse lines with grey; markings indistinct, but similar to *Uniguga*, Walk; reniform ferruginous, in a pale circlet," is not exhaustive, but it contains nothing contradicting Walker's description of *C. junctura*.

*Catocala Arizona*, Grote.

Size large. Fore wings dentate, rather uniformly dark grayish brown with a glaucous shade over the more grayish median space. Median lines black and rather broad. A whitish shade before the brown-tinged, broadly bisannulate reniform. Sub-reniform rather small, pyriform, whitish brown, connected with the t. p. line, tending to become narrowly open. T. p. line well produced opposite the cell, with two sub-equal rather prominent teeth. A not very deep but broadly marked sub-median sinus. The dark scales tend to connect with the t. a. line along the sub-median interspace. The grey sub-terminal shade, preceding the dentate dark line itself, is not erect, but runs obliquely backward to costa above vein 6. Secondaries pinkish red. Median band rather narrow, not much curved, nearly even, rounding and becoming narrower below vein 2, and terminating at vein 1. Marginal band rather narrow, rather deeply excavate opposite the termination of the median band, and leaving a yellowish apical space tinged with red. Beneath largely pinkish red; the median whitish space on primaries also tinged with red inferiorly. The median band as on upper surface, and seen to terminate a very little before vein 1. Thorax and collar brownish, without perceptible lines. Expanse 80 m. m.

I have received this species from Professor Townsend Glover, of the Agricultural Department at Washington. It is labelled "Borders of Arizona and New Mexico.—Dr. Palmer." It is apparently nearest to *C. amatrix*, than which it has more obscurely brown primaries and is perhaps intermediate in character between the group of *C. amatrix* and the Californian red-winged species, represented by *C. californica*.

NOTE.—In my list of the species of *Catocala*, p. 164, 1872, I enumerated 59 species of the genus from our Territory. The total number must be now increased to 63. Of these 11, viz., *Stretchii* Behr., *adultera* Hinze, *irene* Behr., *Walshii* Edwards, *uxor* Guence, *zoe* Behr.,

---

*nuptialis* Walker, *micronympha* Guenee, *connubialis* Guenee, *messalina* Guenee, and Mr. Strecker's *Faustina*, are unknown to me in nature. Already twice the number of species of *Catocala* have been discovered in America than have been described from Europe. The genus does not occur south of Mexico, and has not been discovered in the West India Islands.

---

### NOTES ON AN INTERESTING SPECIMEN OF PAMPHILA ZABULON, BOISD & LÆC.

BY H. K. MORRISON, OLD CAMBRIDGE, MASS.

The identity of *Pamphila pocahontas* and *quadaquina* with the typical species *zabulon* has been universally acknowledged, although there exists no more positive proof than the fact that no males of these forms have ever been discovered. I have in my collection an intermediate specimen exhibiting plainly the characters of the original species and of the variety and sub-variety, and apparently a link between them.

The primaries above are like *pocahontas*, except that the spots are a little larger and of a deeper yellow. The secondaries above are exactly the same as in *zabulon*, dark at the base, disk yellow, with a broad black border. Beneath the spots on the primaries are united together, forming a band almost as wide, and of as deep a color as in *zabulon*. Secondaries beneath like *quadaquina*, except that the central light band is hardly as narrow.

As will be seen from the description, the primaries beneath the secondaries above resemble *zabulon*, the primaries above *pocahontas*, and the secondaries beneath *quadaquina*, making the specimen a curious compound of all three.

It is a female, and was taken near Springfield, Mass.

## MEETING OF THE AMERICAN ASSOCIATION FOR 1873.

FROM P. R. UHLER, BALTIMORE, MD.

The late meeting of the American Association for the Advancement of Science, held at Portland, Me., was largely attended by the Entomologists of the United States. Thirteen were present, and among them were some of the most eminent in this country. Indeed, Section B. was chiefly officered by Entomologists, Dr. LeConte being Chairman and Mr. Scudder Secretary; while, during the last three days of the session, Rev. Dr. Morris presided over the sub-section Biology, and Mr. Grote acted as Secretary.

On three of the evenings (August 21, 22, 23) the Entomologists held meetings in one of the smaller rooms of the City Hall; Dr. LeConte being chosen to preside, and Mr. Uhler to act as Secretary. As steps had been taken at a previous meeting of the Association to enable the Entomologists to form a sub-section, this subject was reconsidered, but the number of Entomological papers offered being so small, it was not then deemed advisable to go into sub-section.

The following petition was unanimously adopted and signed by all present, to be presented to the American Entomological Society and to the Canadian Entomological Society:—

“We, the undersigned, Entomologists assembled at the 22nd meeting of the Amer. Assoc. for the Advance. 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.”

The following resolution in reference to the above was also recommended by the Standing Committee of the American Association, and adopted :—

“ 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.”

Mr. Riley, from the Committee appointed a year ago on Nomenclature, requested that in view of the absence of some of its members, the Committee be dismissed. On motion a new Committee was appointed, consisting of Messrs. Edwards, Scudder, Riley, Bethune, and LeConte, to report at the next annual meeting of the American Association, a code of rules, to be discussed and adopted at said meeting, regarding a uniform nomenclature for the guidance of American Entomologists.

Several Entomological papers were read before Section B. of the American Association ; one being by Mr. Grote, entitled “ Remarks on the Origin of Insects, and on the Antennal Characters in the Butterflies and Moths ; ” another by Dr. J. L. LeConte, “ Hints for the Promotion of Economic Entomology in the United States ; ” a third by P. R. Uhler “ On a Remarkable Group of Wasps' Nests Found in a Hollow Stump in Maryland ; ” a fourth by Cyrus Thomas, “ On the Identity of the Locust of the Prophet Joel with the *Oedipoda migratoria* of Europe,” and a fifth by W. L. Coffinberry, “ On Spiders.”

The meeting was a very pleasant one to the Entomologists, and enabled them not only to freely exchange opinions respecting subjects of wide spread interest, but also to get a glance at the interesting Fauna of the regions which they visited.

---

## THE LAW OF PRIORITY IN NOMENCLATURE.

BY H. K. MORRISON, OLD CAMBRIDGE, MASS.

In a recent article in the ENTOMOLOGIST it is proposed to obviate the confusion in which our nomenclature is involved, by accepting the names most generally in use and allowing the law of priority (if it does not make too much trouble !) to determine all questions which may hereafter come up ; ignoring entirely the claims of older authors and of writers holding different opinions from the proposers of the scheme. This

proposal, notwithstanding its arbitrary and unscientific character, and its injustice to other Entomologists, would perhaps be accepted by those who have more regard for present convenience than for the establishment of a solid foundation for Entomological Science. Unfortunately, however, the proposition, although at first view practicable, leaves the matter exactly where it stood before.

Where is the authority that will be accepted by everyone when that authority is governed, not by those fixed laws which should determine questions of scientific nomenclature, but by individual opinion, the convenience of some particular class, or of the present generation of students? Surely Mr. Mead does not intend, as would be inferred from his article in the June number of the ENTOMOLOGIST, that we should accept the most recent names, or those which, having been published in this country or by some well-known author, are more familiar to or more generally in use among American naturalists.

There are a few species, which from the excellence of their original description and plates, or from their recent publication, have no synonymy; these are the only species which can be properly considered as accepted *by all* (if we reject priority.)

All that the friends of priority ask is that it should be allowed to decide between names already *in use*. Allowing that the term "in use" should be applied in science to any name attached to a recognizable description, published in a work which is or has been on sale; names which are advanced in pamphlets printed for the private use of the author, and only distributed among his friends; and in state agricultural reports not for sale (except at second hand) can not be considered as published at all.

To determine whether a description is recognizable or not is a matter of much more difficulty, for here the judgment of individual students would be likely to differ very much. We do not believe that every name advanced by the older authors, often with but a line or two of loose description, or a plate giving only a general idea of form and color, should be retained. We do think, however, that whenever there exists a valid description, the law of priority should take its course. In some cases in which the description is not definite enough to determine the species, but there exist authenticated types; and in those cases in which the species is



not fully described by the author, but is afterward limited and restricted by other writers previous to the publication of synonyms, we think the law of priority should apply.

The supporters of the law of priority do not so much insist upon its application in those few cases in which opinion as to the validity of the description is denied, as upon its being taken as the acknowledged guide in the great majority of cases in which recognizable descriptions are attached to both names.

The difference between the catalogue of Mr. Kirby and that of Dr. Staudinger is easily explained.

Dr. Staudinger may have adopted priority in some cases, but he certainly has not in all. For instance, he has not in several cases recognized the names of Fourcroy, Scopoli, Bergstrasser and others. The differing degree of strictness with which the law was carried out, is sufficient to explain the discrepancy in the catalogues.

To be effective, priority must be rigidly enforced. The advantages to be gained by the universal adoption of this law are so great to us, and more especially to the future Entomologist, that the drawbacks, formidable at first, but steadily decreasing with time, can, it seems to us, offer but slight resistance to its entire acceptance.

---

## LIST OF COLEOPTERA OF ST. LOUIS COUNTY, MISSOURI.

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

(Continued from Page 147.)

### DYTISCIDÆ.

CNEMIDOTUS, <i>Illig.</i>	HYDROPORUS, <i>Clairv.</i> ( <i>continued.</i> )
12-punctatus, <i>Aube.</i>	pratruelis, <i>Lec.</i>
HYDROPORUS, <i>Clairv.</i>	moestus, <i>Aube.</i>
hybridus, <i>Lec.</i>	lacustris, <i>Say.</i>
imbelus, <i>Lec.</i>	notus, <i>Lec.</i>

- |   |   |
|---|---|
| HYDROPORUS, <i>Clairv. (continued.)</i> | COLYMBETIS, <i>Clairv. (continued.)</i> |
| undulatus, <i>Say.</i>                  | binotatus, <i>Harr.</i>                 |
| sericeus, <i>Lec.</i>                   | AGABUS, <i>Leach.</i>                   |
| lineolatus, <i>Lec.</i>                 | punctatus, <i>Aube.</i>                 |
| dispar, <i>Lec.</i>                     | taeniolatus, <i>Lec.</i>                |
| impressus, <i>Lec.</i>                  | semivittatus, <i>Lec.</i>               |
| nubilus, <i>Lec.</i>                    | ambiguus, <i>Lec.</i>                   |
| HYDROCANTHUS, <i>Say.</i>               | HYDATICUS, <i>Leach.</i>                |
| atripennis, <i>Say.</i>                 | basillaris, <i>Lec.</i>                 |
| LACOPHILUS, <i>Leach.</i>               | ornaticollis, <i>Lec.</i>               |
| maculosus, <i>Say.</i>                  | fascicollis, <i>Harr.</i>               |
| fasciatus, <i>Aube.</i>                 | ACILIUS, <i>Leach.</i>                  |
| COPTOTOMUS, <i>Aube.</i>                | fraternus, <i>Lec.</i>                  |
| interrogatus, <i>Fabr.</i>              | DYTISCUS, <i>Linn.</i>                  |
| MATUS, <i>Aube.</i>                     | fasciventris, <i>Say.</i>               |
| bicarinatus, <i>Say.</i>                | CYBISTER, <i>Linn.</i>                  |
| COLYMBETIS, <i>Clairv.</i>              | fimbriolatus, <i>Mels.</i>              |
| biguttulus, <i>Germ.</i>                |   |

## GYRINIDÆ.

- |                         |                          |
|-------------------------|--------------------------|
| GYRINUS, <i>Linn.</i>   | DINEUTUS, <i>McLeay.</i> |
| affinis, <i>Aube.</i>   | americanus, <i>Say.</i>  |
| nalis, <i>Say.</i>      | discolor, <i>Aube.</i>   |
| pernitidus, <i>Lec.</i> |                          |

## HYDROPHILIDÆ.

- |                             |  |
|-----------------------------|--|
| HELOPHORUS, <i>Fabr.</i>    | HYDROPHILUS, <i>Geoffr. (continued.)</i> |
| lineatus, <i>Say.</i>       | glaber, <i>Hbst.</i>                     |
| scaber, <i>Lec.</i>         | HYDROCHARIS, <i>Latr.</i>                |
| HYDROCHUS, <i>Germ.</i>     | obtusatus, <i>Lec.</i>                   |
| scabratus, <i>Muls.</i>     | BEROSUS, <i>Leach.</i>                   |
| simplex, <i>Lec.</i>        | miles, <i>Lec.</i>                       |
| impressus, <i>Zimm.</i>     | pantherinus, <i>Lec.</i>                 |
| HYDROPHILUS, <i>Geoffr.</i> | infuscatus, <i>Lec.</i>                  |
| ovalis, <i>Ziegl.</i>       | exiguus, <i>Lec.</i>                     |
| triangularis, <i>Say.</i>   | bimaculatus, <i>Lec.</i>                 |
| nimbatus, <i>Say.</i>       | penguia, <i>Lec.</i>                     |
| striolatus, <i>Lec.</i>     | tomentarius, <i>Lec.</i>                 |
| sublaevis, <i>Lec.</i>      |  |

PHILHYDRUS, *Sol.*  
 cinctus, *Lec.*  
 perplexus, *Lec.*  
 maculicollis, *Muls.*  
 ochraceus, *Mels.*  
 pygmæus, *Fab.*  
 HYDROBIUS, *Leach.*  
 regularis, *Lec.*

CYCLONOTUM, *Er.*  
 estriatum, *Er.*  
 CERCYON, *Leach.*  
 flavipes, *Er.*  
 limbatum, *Mann.*  
 centrimaculatum (var.) *Er.*

## SILPHIDÆ.

NECROPHORUS, *Fab.*  
 marginatus, *Fab.*  
 americanus, *Oliv.*  
 pustulatus, *Hersch.*  
 velutinus, *Fab.*  
 SILPHA, *Linn.*  
 surinamensis, *Fab.*  
 marginalis, *Fab.*  
 inæqualis, *Fab.*

SILPHA, *Linn. (continued.)*  
 peltata, *Lec.*  
 var. terminatum, *Kirby.*  
 var. affine, *Kirby.*  
 CATOPS, *Fab.*  
 opacus, *Say.*  
 SERICODERUS.  
 flavidus.

## SCYDMÆNIDÆ.

MICROSTEMMA, *Motsch.*  
 lecontei, *Motsch.*

SCYDMÆNUS.  
 capillosulus, *Lec.*

## PSELAPHIDÆ.

CEOPHYLIUS, *Lec.*  
 monilis, *Lec.*  
 CTENISTES, *Reiche.*  
 piceus, *Lec.*  
 zimmermanii, *Lec.*  
 TYCHUS, *Leach.*  
 longipalpus, *Lec.*  
 BRYAXIS, *Leach.*  
 conjuncta, *Lec.*  
 dentata, *Say.*  
 abdominalis, *Aube.*

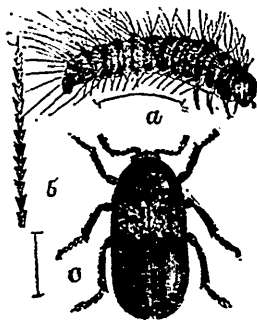
BRYAXIS, *Leach. (continued.)*  
 puncticollis, *Lec.*  
 rubicunda, *Aube.*  
 DECARTHON, *Brend.*  
 formiceti, *Lec.*  
 BATRISUS, *Aube.*  
 globosus, *Lec.*  
 nigricans, *Lec.*  
 RHEXIUS, *Lec.*  
 insculptus, *Lec.*

## ON SOME OF OUR COMMON INSECTS.

8. THE BACON BEETLE—*Dermestes lardarius*, Linn.

BY W. SAUNDERS, LONDON, ONTARIO.

This interesting little beetle, of which we give an enlarged drawing, as well as a representation of its larva, in fig. 18, is a very destructive creature, dreaded by every Entomologist who has had any experience of its ravages. Its larva is very destructive also in some carelessly kept provision and household stores, affecting hams, bacon, old cheese and other substances. It is a European insect, which has long been naturalized in this country, where it seems to be quite as much at home as in its native land. If this beetle can find its way into the drawers or boxes where the Entomologist has his specimens stored, it deposits its eggs on the bodies of the dried insects, where, as soon as the young larvæ are hatched, they begin at once to work their way towards the interior, and here they live and gradually fatten on the dried up viscera of the dead moth or butterfly, skilfully hiding themselves within the body they are consuming, and leaving, when their work is completed, only the bare shell which frequently falls to pieces when disturbed. Where the beetle cannot get at the bodies of the insects to deposit its eggs upon, it will often lay them by the side of small openings or crevices in such boxes, through which the young larvæ enter and at once begin their work of destruction. Besides the substances already mentioned, these larvæ feed on feathers, skins, cat-gut, hair and have even been reared on bees-wax, so that their appetite is by no means a dainty one, and their digestive powers may be considered good.



Where the beetle cannot get at the bodies of the insects to deposit its eggs upon, it will often lay them by the side of small openings or crevices in such boxes, through which the young larvæ enter and at once begin their work of destruction. Besides the substances already mentioned, these larvæ feed on feathers, skins, cat-gut, hair and have even been reared on bees-wax, so that their appetite is by no means a dainty one, and their digestive powers may be considered good.

The larva is an ugly, brown, hairy creature, its body tapering from head to tail, and furnished with a pair of short, curved, horny spines on the top of the last joint; it is quite active in its movements, crawling about with a wriggling motion. The beetle is about three-tenths of an

inch long, of an oblong oval form, black, with a wide band across the wings at their base, of a dull, pale buff colour, dotted with black. Its legs are short, and it is rather timid and slow in its movements, feigning death for a time when disturbed.

Collections of insects and birds need to have a constant watch kept on them to keep out these intruders. Camphor, which seems to be offensive to these beetles, is frequently used to deter them from entering; but where they have entered and begun their devastating work, they cannot be dispossessed by such mild measures; in such instances purified benzine applied freely to the saturation of the bodies of the insects occupied will destroy the *dermestes* larvæ without injuring the collector's specimens.

---

## NOTES ON APHIDES.

BY FRANCIS WALKER, LONDON, ENGLAND.

The following notes were suggested by "Observations," &c., on Aphides in THE CANADIAN ENTOMOLOGIST for July, 1873. The species noticed on *Rumex crispus* seems to have very much resemblance to *A. rumicis* in Europe; some other species of N. America do not differ from those of Europe, but have been probably introduced by means of shipping. With regard to European Aphides it is well known that the winged female of many species appears in the spring, that the wingless female is more fertile than the winged one, that the winged state is, partly at least, by means of the diminution of quantity or alteration of quality in the food, and that the winged state enables the species to have a change of habitation and thus to continue its race till the autumn. It is also well known that the male and the oviparous female do not appear till the autumn, and W. Curtis in the last century remarked that this appearance was owing to the change in the atmosphere and to the consequent difference in the food. The male is, in a few instances, wingless, but is very generally winged, and the oviparous female wingless, but in some few species the oviparous female is always winged.

From the great resemblance between N. European and N. American insects, especially in the more northern parts of each continent, it seems likely that the difference of the manner of life which is suggested by the "Observations" does not really occur. However, there would be much interest in the comparison between European and N. American Aphides, and in observing how far they are mutually counterparts, and in the investigation of N. American species from Canada southward, and in discovering the gradual change in their number and habits.

In Europe there is yet much to learn in their range between Lapland and S. Italy, the latter being the southern limit of the region in which they are known. The history of Aphides in Africa, Asia and Australia is yet almost unknown, though one species has been noticed in Madagascar, another in Hindostan, a third in China, one or two in the Eastern Isles and one in Australia. The parasitic Aphidii have been stated to be plentiful in N. America like as they are in Europe, and thus they afford a subject of enquiry as to the mutual resemblance in the species of the two continents, and the same may be said of the other parasites of the Aphides and those of the Aphidii.

---

### MICRO-LEPIDOPTERA.

---

BY V. T. CHAMBERS, COVINGTON, KENTUCKY.

Continued from Page 152.

#### ERRATA.

Ante p. 44, line 2nd from the bottom, for 'nipped' read *ripped*.

" 46, for '*amogattella*' read *auroguttella*.

" 47, for '*juglandisnigracella*' read *juglandisnigracella*.

" 48, and wherever else the name occurs in these papers, for '*L. tritenocanella*' and other misprints of the same name, read *L. tritacniacella*.

## XYLESTHIA.

*X. Clemensella*. *N. sp.*

Head and palpi snow white or hoary, the outer and under surfaces of the palpi yellowish dusted freely with fuscous; antennae yellowish. Primaries yellowish, reddish yellow and stramineous, with some white scales, and densely dusted with dark brown and bluish black scales, the dusting being much more dense in the middle and costal portions of the wing than in the dorsal and apical portions. There is a white costal streak just before the cilia and another very faintly indicated before the middle; dorsal ciliae whitish at their beginning; ciliae brown. Thorax white dusted with dark brown; abdomen dark brown; legs and under surface whitish, rather densely dusted with brown, the legs with white annulations, and the anterior tarsi darker than the others.

There is a tuft of raised scales on the fold at the base of the primaries and three other large ones between the fold and the dorsal margin, two small ones about the end of the cell, three or four small ones on the disc and three or four others in the apical part of the wing.

As this species approaches *X. pruniramiella* Clem., the only other described species of the genus, I have hesitated to describe it as a distinct species, but it differs so decidedly from Dr. Clemens' description of *pruniramiella* that I conclude it must be a distinct species.

## ARGIOPE.

*A. dorsimaculella*. *Ante p. 13.*

This species, for which I erected this genus, belongs to the *Glyphipterygidae* near *Glyphipteryx*, and may be found to belong to *Aerolepia* Curt.

## ADRASTEIA.

*A. quercifoliella*. *Ante p. 72, and v. 4, p. 206.*

The identity of this species with *Psoricoptera gibbosella* St., suggested at p. 72 *ante*, was based upon Mr. Riley's identification of the two, and upon a bad translation of a generic diagnosis from the German. Since the remarks at p. 72 were written, I have seen Mr. Stainton's generic and specific diagnosis in *Ins. Brit.*, v. 3 (to which I had no access until this summer), and find that the most distinctive character there given and

figured is the tuft of scales on the inner surface of the terminal joint of the labial palpi—a character which I have never found in any of the species which I have placed in *Adrasteia*. I am therefore not satisfied that the two genera are exact equivalents.

## GELECHIA.

*G. scutellariacella*. *N. sp.*

This species approaches closely those which I have placed in *Adrasteia*. There is a distinct divided bunch on the second joint of the palpi, but it is smaller than in the species which I have placed in that genus, and there are no tufts of raised scales. It differs from the true *Gelechia* in having the last joint of the palpi but little more than half as long as the second joint, and the antennae but little more than half as long as the wings.

Blackish brown, tinged with blue, dusted with pale or bluish white, with an indistinct whitish costal streak before the cilia, and an opposite dorsal one. The white dusting of the primaries is more dense and more hoary towards the apex of the primaries. Inner surface of the palpi yellowish. *Al. ex.*  $\frac{3}{8}$  inch. Posterior tibiae clothed with a tuft of long hairs.

This is a very plain and inconspicuous insect, principally remarkable for the habits of the larva. It is white, with green contents, and head pale straw color, and mines the leaves of the "Sculicup" (*Scutellaria lateriflora*). It constructs a case or tube of silk lined externally with its frass. The tube is nearly flat, but curved, one side being convex and the other concave, and it is wider at one end than at the other and attached by its narrower end to the under surface of the leaves, and from it the larva passes into the leaf to feed, retiring into the case when alarmed and to pupate. It constructs but one case, and I think the attachment of that one to the leaf is permanent, and that the larva makes but the one mine.

I have never found it except in a single locality—near the village of Verona, in Boone County, Kentucky. There it is very abundant in September and October.



*G. solaniella*.

*G. similiella*, v. 4, p. 193.

*Similiella* is a bad name for anything, and as I have discovered the larva of this species, I change the name accordingly.

The larva is at first whitish, but before maturity becomes deep greenish blue. It mines the under surface of the thorny leaves of *Solanum Carolinense*, eating the parenchyma entirely out of the mined portion, which looks like a dead, dry blotch, and the leaf usually curls over the mine. The larva constructs a sort of tube in the mine by sewing the upper and lower cuticle together, and it usually resides in this tube. In confinement it leaves the mine to pupate in a cocoon on the ground, and most probably does so in a state of nature.

*G. ? unistrigella*. *N. sp.*

White. Primaries very sparsely dusted with pale fuscous in the apical portion; a fuscous spot about the middle of the costa, with two other small ones between it and the dorsal margin; a fuscous streak begins at the base of the costal margin and extends along that margin for a short distance, passing thence obliquely backwards across the wing, but not quite reaching the dorsal margin. Antennae pale fuscous, with narrow white annulations; palpi white, suffused with fuscous on the outer surface of the second joint, and with a fuscous ring near the base of the third joint. *Al. ex.*  $\frac{1}{2}$  inch. Kentucky.

Wings in repose almost horizontal, as in *Depressaria?* (*Gelechia*) *cercarisella*, which it also resembles in the palpi, which in both are those of *Gelechia*.

---

#### CORRESPONDENCE.

DEAR SIR,—

I have to thank you for your remarks on Mr. Andrews' note, printed on page 135. They render any reply of mine to Mr. Andrews almost entirely unnecessary. I have merely to add to your statements that I was entirely ignorant that the specimens of Heman's *marginalis* belonged to Mr. Andrews, nor knew that Mr. Andrews was at all concerned in the

matter till I read the note in the CANADIAN ENTOMOLOGIST. I received from Mr. Strecker his material belonging to Heman's *Hæmorrhagia* and *Alypia* for determination, and all the indication on the specimens of Heman's *marginalis* was the number 3, which referred to the locality "Michegan" in Mr. Strecker's letter to me accompanying the specimens.

AUG. R. GROTE.

September 11th, 1873.

DEAR SIR,—

I scarcely think that I intended my letter (in reference to Mr. Grote) to be published. However, as it has afforded you an opportunity to apply the lash where it was deserved (albeit it was somewhat over my shoulders) I do not regret its publication. In justice, however, to myself, I must request you now to give a place to this my response.

You totally misconceived the object of my complaint if you imagined that I sought "*sympathy*." The wrong was impertinent, but not cruel. Personally, I could have passed over Mr. Grote's conduct without shedding a tear. But this gentleman has made himself, so far as Entomology is concerned, public property, and when a man in such a position perpetrates a wrong which, if repeated, may lead to injurious consequences, I think it the duty of any one cognizant of that wrong to expose it.

You seem to justify Mr. Grote, who, however, as my letter showed, was not required to make any of the investigations you allude to.

Here is a parallel case: *A* is a "money expert," knows good money from bad. *B* has a doubtful five dollar bill which he sends to *A* for his opinion as to its genuineness. *A* looks, determines that it is good, and puts it in his pocket! After a while *B* writes for the opinion, and, of course, for the bill. The answer comes this time, thus: "Oh, yes, your bill is good; so good indeed, that, imitating the great Ben Butler with his salary-grab, 'I have bought butcher's meat with it!'"

Now, you say that *A* is right; and, worse still, that you have no sympathy with *B*. Serves him right, I suppose.

W. V. ANDREWS, New York.

DEAR SIR,—

September 18th, 1873.

It is my duty to say a word to your readers in reference to my accusations against Mr. Grote, and which appeared in your last issue.

Those accusations have occasioned a good deal of feeling betwixt Messrs. Grote and Strecker, if one may judge from the correspondence which has since passed between them, and which, by the courtesy of the respective gentlemen, I have been permitted to see.

Without betraying any confidence, I may say that the whole thing is resolved into a question of veracity as betwixt those two gentlemen, and I must say that while I feel confident that neither party would state a falsehood, there certainly is a great imperfection of memory somewhere—where, I, of course, cannot decide.

The statements made in my note, already referred to, were almost literally as told me by Mr. Strecker. Mr. Grote denies that he received any limiting instructions from Strecker. So the matter stands.

Let the thing drop altogether. It is not of sufficient importance to waste another sheet of paper about it. My object was not, Sir, as you imagined, to enlist a childish sympathy in my favor, it was meant to check a practice of which I had heard a good deal, and which, if continued, could not fail to exert an injurious influence on Entomological Science in America.

W. V. ANDREWS.

MR. STRECKER'S CORRECTIONS.

DEAR SIR,—

Mr. Strecker, of Reading, Penn., has been in correspondence with Mr. H. B. Moschler, who has written some very valuable articles on the Lepidopterous Fauna of Labrador, in the *Wiener Entomologische Monatschrift*, and whose description of *Gelechia labadorensis* I have translated in these pages. Mr. Strecker corrects the name *speciosissima* Mosch. to *speciosa* Mosch., in the citation of a species of *Arctia* in Mr. Robinson's and my List (1868).

This is right, and I committed an error in transcribing the name, and one that escaped me on the proofs, but was detected about fifteen minutes after the printed copies were in my hands. Mr. Strecker next, on

information from Mr. Moschler, unites *A. quenselii* Geyer and *A. gelida* Moschler, cited separate in our "List." This correction, coming from the author of the synonym, is doubtless of value, but we have no responsibility in the matter nor did we "fall into any error." If Mr. Strecker will refer to the two names in the List, he will find them followed by a dash (—), and from our preface he may gather the information that this dash indicates that we do not know the species and are not to be held accountable for their value. Next, Mr. Strecker (undoubtedly on the strength of Mr. Moschler's letters) says we fell into the same error with regard to *Arctia parthenos* Harris, and *Arctia borealis* Moschler. Mr. Strecker should have read my statement that the two were probably identical, published in the Proc. Ent. Soc. Phila., pp. 74 and 537 (1864). The species were, however, described as distinct by Professor Packard and the names are kept separate on this authority in the List; *borealis* being followed by a dash, since we do not know it as distinct from *parthenos*. At the time of describing *borealis*, Mr. Moschler did not know that Harris had described an allied species, nor in describing *speciosa*, that Kirby had described *virguncula*, since he does not allude to them; but perhaps, after all, the species described by Moschler from Labrador, may be distinct; at least it is yet an open question whether they are so or not. Where is our "error," then, with respect to these species of *Arctia*?

With only partial quotation of our remarks, Mr. Strecker unites our *luteola* from Quebec with *cordigera* from Lapland. We had only *mystilli* in nature for comparison, and judged of *cordigera* by description when we described *luteola*. That we judged the American to be a near ally of the European species is evident from our remark that it "appears to represent the European *cordigera* in our fauna." Now, that Mr. Strecker has received from Europe specimens of *cordigera* and compared them with *luteola*, and finds no difference, it becomes probable that they are the same species. This information is very interesting in a distributional point of view.

To conclude this notice I will draw attention to Mr. Strecker's repeated remarks that "great confusion exists with regard to the species of *Catocala*." These are not true of the most prominent collections of that genus. There is but little uncertainty about our species, and that with regard to the limits of a very few of them. I have determined during the last ten years nearly all material in this genus, sent to me from Canada, to Georgia, and all of Mr. Strecker's determinations have

come at first or second hand from me. The very poor descriptions in the Lepid. Het. have not as yet improved our knowledge of our species, except to the extent of giving us three very doubtful forms as new, the best of which (*C. obscura*) I thought might be Guence's indicated var. of *insolabilis*, and so informed Mr. Strecker, who sent me a specimen for examination, accompanied by an epistolary threat that if I did not give him the name of it within a certain time, he would "describe it as new."

A. R. GROTE, Buffalo, N. Y.

---

### MISCELLANEOUS.

AN AQUATIC BOMBYCID MOTH.—Mr. Bar, of Cayenne, has forwarded to the Entomological Society of France, descriptions and specimens of the various stages of an interesting Bombycid. The larva lives under stones in streams and rises to the surface for transformation. The cocoons are found in clusters floating on the water. Aquatic caterpillars have hitherto been known only in the lower families of Lepidoptera.—*American Naturalist*.

MODE OF EGG-LAYING OF AGRION.—Mr. G. W. Dunn writes us that while collecting at Santa Cruz, California, he observed a species of Agrion (as we find the insect to be) "flying about the water united, male and female. The female would light on a spear of grass growing in the water; the male would then let go, and the female go down the grass twelve or fifteen inches under water and deposit her eggs."—*American Naturalist*.

---

### ADVERTISEMENTS.

EXCHANGE.—I am desirous to exchange English for Canadian or American Lepidoptera. 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.