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THE CANADIAN  
ENTOMOLOGIST.

VOLUME VII.

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LONDON, ONT.

ASSISTED BY

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No. 1

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## OUR SEVENTH VOLUME.

With the present issue we enter upon the seventh year of our existence. On looking back over our past career, we see abundant reason for thankfulness and encouragement; from small beginnings we have grown to a respectable sized periodical, while in mechanical execution, typography, paper, &c., we give precedence to none. The completion of our past volume and the advent of the present number have been delayed by untoward circumstances beyond the time intended, but we are making a fresh start now, and hope by persevering effort to catch up lost time and issue regularly hereafter. To meet the wishes of several of our friends who desired to have certain material printed before the close of the sixth volume, we published last month a double number, consisting of forty pages with index added, so that our readers have been dealt with more liberally than we had promised, having received a volume of 260 instead of 240 pages. Many kind friends have helped us in the past with their contributions, and we gratefully observe that the number of helpers is increasing, as is shown by the recently issued list of contributors to the sixth volume; we trust that none of these will weary in well-doing, but continue their needed assistance and enlist their friends as far as possible in the same service. Original observations on the habits and life history of insects are especially desired, to make our journal still more useful and interesting. With the kind aid of our coadjutors, we shall endeavor to continue the papers on our common insects, which will, as heretofore, be accompanied by suitable illustrations, and shall, as far as possible, provide in each issue other material which will interest the general reader.

We would also take this opportunity of reminding our subscribers that subscriptions for the new volume are now due, and will be thankfully received by the Secretary, Mr. J. H. McMechan, London, Ont. It is with pleasure, also, that we inform our many correspondents that by the recent postal arrangements entered into by the United States and Canadian authorities, all letters mailed after the first of February will require a three cent stamp only to carry them from any part of the States to any part of Canada and *vice versa*, instead of six cents, as heretofore; post cards also will pass from one country to the other without the additional stamp.

## CATOCALA NEBRASKÆ, DODGE.

BY G. M. DODGE, GLENCOE, DODGE CO., NEBRASKA.

*Expanse*, 2.70 inches. Primaries scalloped, apparently brown, being densely sprinkled with black scales on a reddish gray ground. Reniform tinged with red, clouded anteriorly with black, and having a black central spot. Sub-reniform indistinct. Terminal line nearly obsolete, the grayish band which precedes it showing plainest on the costa. All the transverse lines are black, and a curved row of seven black dots appears on the interspaces along the outer margin. Fringe dark, tipped with white.

Secondaries red, of about the same shade as appears in *C. parta*. Median band not much curved, and of nearly the same width as appears in *C. unijuga*, excavated anteriorly at the extremity of the discal cell, slightly constricted just after crossing the first median venule, and ends abruptly at the submedian vein; a few scattered scales appear beyond. Marginal band of medium width; even on inner edge, excavated opposite the termination of the median band, and ends about half way between the submedian and internal veins. Apex white, tinged with red.

Fringe white, spotted with black, which color predominates at the anal angle. Thorax same color as primaries. Abdomen clear brown, three of the segments tipped with white. Beneath, the general appearance much as in allied species. Median band of secondaries ends at submedian vein.

Taken at Glencoe, Dodge County, Nebraska, in August, 1874. Mr. Grote informs me that this species seems to be related to *Catocala Californica*.

NOTE ON CATOCALA NEBRASKÆ, BY A. R. GROTE, BUFFALO, N. Y.

Mr. Dodge has sent me a specimen of this species, recently discovered by himself. It is closely allied to the European *C. nupta*. It differs by the greater obliquity of the t. p. line and the shallower submedian sinus. The fore wings are otherwise quite similar in color and design, while the lines are more deeply black marked in *Nebraska*. The hind wings differ by the greater narrowness of the terminal band, and notably by the narrower, more rounded and non-angulated median fascia. The species seem to be related somewhat as *C. locata* of Europe and *C. Walshii* of

North America. Perhaps it is this species (*C. Nebraska*) that has led Mr. Strecker (who has shown himself on other occasions to be inexact) to record "*C. nupta*" as being found in North America. I will remark here that Mr. Strecker's statement that the Californian species of *Nemophila* are identical with the European *Russula*, is contradicted by their description as distinct by Dr. Boisduval, who should be well acquainted with the variations of the European form. The statement that *Eupsychoma geometrica* is the exact equivalent of Mr. Walker's *N. petrosa*, made by Mr. Strecker, is erroneous, and is probably a careless rendering of Dr. Packard's previous statement that the two were probably forms of the same species. In *geometrica* the hind wings are entirely black; in *petrosa* (the type of which I saw in the British Museum) the hind wings are white or yellowish, with black markings. In my opinion it will eventuate that we have several species of *Nemophila* in our Western regions, none of them identical with *plantaginis*, and probably some of them (i. e. *Eupsychoma geometrica*) to be distinguished structurally, and therefore generically from *caespitis* and *cichorii* and *plantaginis*.

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#### CAPTURES OF NOCTUIDÆ AT ST. CATHARINES, ONT.

BY GEO. NORMAN, ST. CATHARINES, ONT.

In the spring of this year I commenced collecting the *Noctuæ* of this part of Canada, and in the hope that a list of my captures, with the dates of appearance, may be of interest, I venture to send the same for publication.

Being a stranger to the insect fauna of N. America, and in the absence of anything like a manual of the Heterocera, I should, even with the assistance of the Brit. Mus. Catalogues and Guenee's work, have had great difficulty in identifying my specimens. Fortunately this difficulty was removed by Mr. Grote, of Buffalo, who, in the kindest manner, has from time to time named my material. For this courteous assistance I am under lasting obligations. I have thought it advisable not in all cases to adopt the genera of Mr. Grote's "List of N. American Noctuidæ," for in the unsettled state of nomenclature at present existing, I prefer the arrangement of M. Guenee. This I, moreover do, for reasons not neces-

sary here to mention. It will be observed there are in my list several species, and even some genera, hitherto new to science; these have in nearly all cases been published by Mr. Grote in various journals. Many of the Homopteridæ I have omitted altogether, as it seems hopeless to identify them by the meagre descriptions existing. Finally, Mr. Grote has several specimens yet undetermined, which will have to be added to the list.

*Thyatira cymatophoroides*—14th July; at sugar; not common.

—————*expultrix*—23rd June to July; not common.

*Raphia frater*—25th June; rare; at sugar.

*Acronycta occidentalis*—2nd June to August; common; at sugar and at rest.

—————*morula*—10th July; rare; at rest.

—————*connecta*—12th August; rare; at sugar.

—————*hastulifera*—26th June; not common; at rest.

—————*dactylina*—24th July; rare; at sugar.

—————*brumosa*—17th May to August; at rest and at sugar; not uncommon.

—————*Verrilli*—20th July; rare; at sugar.

—————*noctivaga*—6th June to August; rare; at light and at sugar.

—————*superans*—25th June and July; not unfrequent; at sugar.

—————*ovata*—18th June; bred; rare; at sugar.

—————*subochrea*. *N. sp.*—2nd July; rare; at sugar.

—————*dissecta*—17th June; two specimens at rest.

—————*oblivita*—26th May; rest; very frequent; a second brood in August; cocoons frequent on palings.

*Bryophila lepidulo*—19th July; rare at sugar.

—————*palliatricula*—29th June; frequent; at rest and at sugar.

*Noctua sigmoides*—29th June to August; not unfrequent; at sugar.

—————*augur*—3rd July; common; at sugar.

—————*baja*—3rd August to September; very common; at sugar.

—————*C. nigrum*—11th June to September; very common; at sugar and light; specimens larger than in Europe.

—————*bicarnea*—31st July to September; very frequent; at sugar and at lime blooms.

—————*Normaniana*. *N. sp.*—21st July to September; frequent; at sugar. This has hitherto been, I believe, considered the same as *N. triangulum*. I am reminded much more of *N. depuncta*, which seems its nearest ally.

- Noctua clandestina*—19th June to July ; common ; at sugar and lime blooms.
- brunneicollis*—2nd July to September ; rare ; at sugar.
- alternata*—1st July to September ; very common ; at sugar.
- cupida*—17th July to August ; frequent ; at sugar.
- rubi*?—4th August ; rare ; at sugar.
- Agrotis herilis*—31st July to September ; very common ; at rest, sugar and light.
- tricosa*—3rd August to September ; very common ; at rest, sugar and light.
- subgothica*—9th August to September ; not so frequent as the above two species ; at rest, sugar and light. All three species in abundance on flowers of Thistle (*Cirsium arvense*) and unexpanded flowers of *Venbascum thapsus*.
- fennica*—10th August ; one specimen at rest in the Montebello Gardens.
- gladiaria*. *N. sp.* Morr.—Sept. 5th ; not unfrequent at sugar and light.
- tesselata*—29th June ; bred from larva found in abundance at the roots of *Malva rotundifolia* in May ; afterwards to 2nd of July, swarming ; at sugar, rest and at lime blooms. Many remarkable and beautiful varieties.
- Cochrani*—27th July ; bred afterwards ; common ; at sugar and rest to September.
- saucia*—14th August ; not uncommon ; at sugar.
- suffusa*—2nd June to October ; swarming at sugar, flowers and light.
- venerabilis*—6th September ; not uncommon ; at light and sugar ; also bred.
- Aplecta pressa*. *N. sp.*—6th July ; lime blooms and at rest ; several.
- herbida*—27th June to September ; common at rest ; less frequent at sugar.
- nimbosa*—6th August ; rare ; at sugar.
- latex*—30th May to June ; not uncommon ; at rest.
- Annoconia badicollis*—31st July ; rare ; at sugar.
- Hadena subjuncta*—2nd July ; rare at sugar.
- vicina*. *N. sp.*—4th June ; rare at sugar.
- confusa*—8th May ; rare at palms.



- Hadena albifusa*—5th June to August; common at rest, flowers and sugar.  
 ——— *claviplena*—9th July; rare at sugar.  
 ——— *xylinooides*—23rd May to June; common at rest and at sugar; a second brood in August, smaller in size.
- Dianthoccia meditata*—11th August; not rare at sugar and at rest.
- Mamestra arctica*—22nd June to August; swarming at rest, and at sugar and lime blooms; also at light; bred from warty larvæ found under stones in May.  
 ——— *decastator*—24th June to September. By far the most common moth here; a perfect nuisance at sugar.
- Apamea jaspis*—30th May to July; common at rest and at sugar.  
 ——— *finitima*—10th June; common at rest; rarely at sugar.  
 ——— *mactata*—31st August to September; common at rest and sugar.  
 ——— *modica*—7th July to September; very common at rest and sugar.  
 ——— *reniformis*—31st July to September; not uncommon at sugar.
- Celæna herbimacula*—23rd June to October; seemingly a succession of broods; very common at sugar, light and rest.  
 ——— *chalcedonia*—25th June; rare at sugar.
- Dipterygia pinastris*—14th June; not common at sugar and at rest.  
*Xylophasia apamiformis*—16th June; frequent at sugar and at rest.  
 ——— *sputator*—4th July to September; common at sugar and bred.  
 ——— *dubitans*—12th July; rare; one specimen in spider's web.  
 ——— *lignicolor*—27th June to August; common at sugar and lime blooms.  
 ——— *verbascoides*—9th July; rare; one specimen at sugar.  
 ——— *sectilis*—12th June to August; not uncommon at sugar and rest.  
 ——— *cariosa*—6th July; rare; one specimen at rest.
- Cloantha ramosula*—18th May; rest hibernated; 1st September, fresh specimen at rest; rare.  
 ——— *zomerina*—8th May; rare at Sallow Palms (*Salix caprea*).
- Phlogophora periculosa*—6th August; rare at sugar.  
 ——— *iris*—9th June; rare at sugar.
- Euplexia lucipara*—2nd June to August; not common; at rest and sugar.  
*Nephelodes violans*—1st September; common at light and sugar, but always in bad condition.
- Luceria loculata*—27th June; not uncommon at sugar.
- Hydraccia lorca*—16th June to July; common at light, flowers and sugar.  
 ——— *nictitans*—21st July to August; common at sugar; neither so variable nor so beautiful as European specimens.

(To be Continued.)

## TINEINA FROM TEXAS.

BY V. T. CHAMBERS, COVINGTON, KENTUCKY.

(Continued from page 249, vol. vi.)

Since the preceding portion of this paper, as well as much of that which follows in this and some following numbers, were placed in the hands of the Editor of the CAN. ENT., I have received from Mr. Belfrage another collection of Tineina from Basque County, Texas, containing additional specimens of species found in the first collection, and several new species. The only species contained in this last collection which has been previously described from more Western localities, and were not contained in the former collection, are *Gelechia solaniella*? Cham. and *Strobisia iridipennella* Clem. and *Theisoa bifasciella*. The specimens of the first named differ somewhat from bred specimens from Kentucky and Missouri, so that I mark them doubtfully as of this species; I however believe them to be the same. *Strobisia venustella* Cham., I am now satisfied, is a synonym for *S. iridipennella* Clem. Because of the presence of several brilliant blue spots on the wings of my specimens, not mentioned in Dr. Clemens' description, I was led to believe that they belonged to a different species. But the individuals vary in this respect. Mr. Stainton, in his edition of the Clemens' papers, has corrected Dr. Clemens' description so far as it differed from specimens in his collection. Dr. Clemens' description was probably correct of the specimens observed by him. The single Texas specimen in this collection has a less number of the blue spots than any other that I have seen. I insert here a few descriptions of species contained in Mr. Belfrage's last collection, which are new, reserving for a future paper other new species and notes on those described in papers already in the hands of the Editor. The second collection was made in Basque County, Texas.

## HYPONOMEUTA.

*H. 5-punctella*. *N. sp.*

Snowy white. On the forewings are five distinct, circular, black spots, three of them forming a line along the middle of the wing, the other two being in the dorsal half of the wing, one of them opposite the space between the first and second, and the other opposite the space between the second and third spots. The first spot is placed about the basal

fourth, the second about the middle, and the third about the apical fourth. Hind wings silvery white, tinged with gray. *Al. ex.*  $\frac{3}{4}$  inch. Basque Co.

*H. apicipunctella.* *N. sp.*

I fear this specific name may at times prove mis-leading, as the apical black spot is small and may not be observed if the specimen is at all denuded.

Silvery white, the hind wings silvery, tinged with gray. There is a distinct black spot on the middle of the anterior margin of the thorax, one on each side of the tip of the thorax, and another on each side before the tip, and one on the patagia. On the forewings there is a black spot at the base, above but near to the fold, a little further back is one on the dorsal margin; above the fold and nearly opposite the second of these wing spots, are two others, one a little further back and nearer to the fold than the other. Further back on the fold is another, near to which, above the fold and about the middle of the wing, is another circular spot, larger than the others. Behind this spot are four others, forming a trapezoidal figure, and behind these, in the apical part of the wing, is a longitudinal spot or dash; there is also a similar dash on the dorsal margin, just before the ciliae. There are six black spots at the base of the dorsal ciliae, and five narrow black dashes along the base of the costal ciliae, and *there is a black spot at the tip of the ciliae* behind the row at their base. *Al. ex.*  $\frac{1}{2}$  inch. Basque Co.

GRACILARIA.

I observe that by some error this generic name is in some preceding papers spelled with two l's. *Gracilaria* is the correct form of the word, and the same form is in use for a genus of Marine Algæ. I am not able to state which genus the name was first applied to. I will add here that the name of one of Dr. Clemens' genera *Aspidisca* is pre-occupied among the Infusoria (*Aspidisca, Ehrenberg.*)

*G. Belfragella.* *N. sp.*

Antennae purple brown; face and palpi white; the second joint of the maxillary palpi and the third joint of the labial pair tipped beneath with brown. Thorax and wings purple brown. The costal triangle is very pale lemon yellow, and reaches the fold, where it is somewhat trun-

cate; posteriorly it extends as a rather wide band along the costal margin to the ciliae. Sides of the thorax purple brown. Anterior and middle legs purple brown, with white tarsi; hind legs whitish, except the apical halves of the femora, which are purple brown. *Al. ex.*  $\frac{1}{3}$  to  $\frac{1}{4}$  inch. Basque Co.

NÆRA, *gen. nov.*

Second joint of the palpi with a projecting tuft, more nearly like that of a *Plutella* than that of any other genus known to me. When the tuft is removed from the second joint, the palpi resemble those of a *Laverna*, for which I at first mistook it, and the deception is the more readily believed because of the tufts of raised scales on the wings. The form and neuration of the hind wings is exactly that of *Cleodora cytisella*, as figured in *Ins. Brit.*, v. 3, while the fore wings, though a little narrower than those of *Gelechia rufescens loc. cit.*, have very nearly the same neuration. The antennae are more than half as long as the fore wings, with the basal joint short and hardly larger than the stalk, which tapers from the middle to the tip. The palpi are somewhat recurved, and long enough to reach the vertex, with the terminal joint a little fusiform, with the tip blunt. The head resembles that of a true *Laverna*, but the face is not so full.

*N. fusco-cristatella. N. sp.*

Head and face white; second joint of the palpi and the tuft more or less externally marked with dark brown, and the third joint with two brown annulations, one narrow and indistinct about the middle, and a wide one before the apex. The face is marked a little with brown about the base of the antennae, which are white, annulate with brown, and the basal joint has two distinct brown annulations, one about its base, the other before its apex. The upper surface of the thorax and fore wings is ash gray, sometimes nearly white, and sometimes suffused with ochreous and brown, and when the thorax and base of the wings are not so suffused, then the white passes gradually into the gray or ochreous brown, deepening gradually to the apex. To the naked eye the greater number of individuals appear to have the thorax and basal fourth and the apical third of the fore wings ochreous or reddish brown, while the middle portion of the wings is white or yellowish white. There are on the fore wings four brown spots, the first placed on the base of the costa, with the others following in a line departing a little from the extreme costa;

opposite the space between the two last of these spots, and beneath the fold, is another small brown spot on the base, near the dorsal margin; there is also one on the apex of the thorax, and sometimes three, or four obscure ones on the thorax before it. Beneath the fold, close to, but not touching it, at about half the wing length, is a tuft of raised scales, the anterior portion being brown and the posterior white. Behind the discal cell are two other tufts, opposite to each other, one within the costal margin and the other within the dorsal margin, and behind the space between these tufts are three or four narrow, longitudinal streaks of white and dark gray, and the dorsal margin behind the tuft is whitish. Behind the costal tuft is an oblique white costal streak, passing backwards *towards* a small whitish spot in the dorsal ciliae, and margined decidedly behind by dark brown; behind the margin of this streak the costal margin along the base of the ciliae is reddish ochreous, with three or four small white spots on the base of the ciliae, which are grayish brown. There is also a small brown spot on the costa just before the middle, and one on the disc behind it. *Al. ex.*  $\frac{3}{8}$  to  $\frac{1}{2}$  inch. Waco and Basque Co.

## BUTALIS.

*B. buristriga.* *N. sp.*

Dark purple brown, with a narrow yellow streak along the middle of the fold, which is sometimes interrupted. *Al. ex.*  $\frac{1}{2}$  inch. Season, October.

*B. dorsipallidella.* *N. sp.*

Dark purple brown; the base of the primaries and the dorsal margin to the fold, pale ochreous yellow faintly suffused with purplish. *Al. ex.*  $\frac{1}{2}$  inch. Season, April.

*B. immaculatella.* *N. sp.*

Dark bronzy brown, somewhat iridescent; the second joint of the palpi a little pale beneath. *Al. ex.*  $\frac{1}{2}$  inch. Season, April.

The two following species I have been unable to separate from *Butalis* otherwise than by the ornamentation, which is altogether different from that of the other species.

*B. plausipenella.* *N. sp.*

Very pale ochreous yellow, nearly white; the second joint of the antennae stained with fuscous towards the apex, and a fuscous annulus

around the middle of the third joint. Primaries obscurely streaked with pale fuscous between the veins. *Al. ex.*  $\frac{1}{2}$  inch.

*B. albapenella. N. sp.*

White, with a very faint ochreous tinge. *Al. ex.*  $\frac{1}{3}$  inch. Season July

GLAUCE, *gen. nov.*

The species for which this genus is erected is congeneric with, or, at least, is closely allied to some species of *Gelechia*, and but for the peculiarities of the secondaries, I should have placed it in that indefinite group.

Head and face smooth; scales appressed; face broad, somewhat retreating; antennae more than half as long as the wings, stalk simple, basal joint elongate but not enlarged; tongue moderately long, scaled; no maxillary palpi; labial palpi recurved, divaricating, overarching the vertex; third joint pointed, nearly as long as the second, which is scarcely thickened beneath.

Primaries lanceolate; cell closed, short and narrow; costal vein short; the subcostal sends two veins to the costal margin from behind the middle, one from the end of the cell, and the apical branch, which is trifid, the first branch going to the dorsal margin, the other two to the costal margin; the median subdivides into four branches from the hinder part of the cell; the discal is short, with no branch, and the submedian is furcate at the base.

Secondaries a little narrower than the primaries, with the posterior margin excised beneath the tip; *the costal margin from the base to the middle is armed with a row of stiff, sharp, two-edged bristles, passing gradually towards the middle of the costa into large scales*, and is slightly excised from the middle to the tip. *The cell is closed, short and wide*, the discal vein being placed about the middle of the wing, long and without any distinct branch. The subcostal is straight and furcate before the tip, one branch going to each margin. A branch of the discal vein or a fold is faintly indicated, and is continued through the cell to the base; the median gives off a short branch before its middle, and three from the end of the cell; submedian somewhat distinct, internal obsolete; there is also a faintly indicated vein or fold through the middle of the cell from the base, touching the median between its last two branches.

*G. pectenlaevella*. *N. sp.*

The ground color appears to be pale yellowish, but it is almost entirely obscured by dense fuscous dusting and fuscous spots; apex of the primaries more deeply fuscous; head a little iridescent; antennae annulate with sordid yellowish. *Al. ex.*  $\frac{1}{8}$  inch. Season, September.

(To be Continued.)

## THE MEXICAN HONEY ANT.

(*Myrmecocystus Mexicanus*.)

BY THE EDITOR.

During the summer of 1873 we received from an esteemed correspondent, Mr. Jacob Krummeck, residing in Santa Fe, New Mexico, several packages of this most curious insect, accompanied by letters giving interesting details of their habits and of the uses to which the

Fig. 1.



honey they secrete is put. In fig. 1 our readers will find excellent figures of a worker, a honey-secreter and cocoons, commonly known as eggs, drawn by Miss Peart, of Philadelphia. At the meeting of the American Pharmaceutical Association, held in Baltimore in 1873, we presented a paper on this insect, from which we quote the following:

Very little can be found in Entomological works relating to this insect. Some thirty years ago, a Belgian naturalist, M. Wesmael, received specimens from a party travelling in Mexico, and published some observations on it in the fifth volume of the Bulletin of the Royal Academy of Brussels, giving it the name of *Myrmecocystus Mexicanus*. The discoverer found them very common near the town of Dolores, where they were known under the native name of Busileras. He states that they live in underground nests, which are not distinguishable from without. In early life none of these insects present any unusual distension of the body, but when arrived at a certain period of maturity some individuals begin to

show a distended abdomen, which after a time becomes swollen into a comparatively immense sphere, produced by the distension of the membrane connecting the abdominal segments, this sphere or sac being filled with a sort of honey. Another class of individuals in the community, raised from the same brood of eggs, manifest no tendency of this sort, but retain the usual normal form of abdomen. Both these classes of ants are neuters. When the sacs of the honey-producers are full they are somewhat like a transparent bubble of a yellowish color. They are unable in consequence of their immense burden to leave their nests, and are necessarily almost inactive, remaining fixed or suspended to the floors of the galleries of their nests elaborating this honey, which, it is said, they subsequently discharge into cells similar to those of the hive. It is also stated that the women and children dig them up and enjoy their honey, and that it is by no means unusual for these insects to be served at table, the head and thorax with the legs being removed, when the distended abdomens are eaten as a delicate sweetmeat. The neuter ant without the distended abdomen is the active worker in the establishment.

Our friend Krummeck informs us that they are found in considerable numbers in the mountains around Santa Fe; that the honey ants are unable to move and are fed by the active workers. He says, "I have sat by their nests and watched them working, for, at one time, six or seven hours; the workers carry leaves of different plants home, to feed, as I suppose, the others that produce the honey." Mr. Krummeck has tried to procure us specimens of the plants on which this insect feeds, but has not yet succeeded. He does not think that the honey is deposited by these honey ants in cells, as has been stated, but that they keep the fluid in their bodies, and the workers feed from them, and that when the honey in the sac of an individual is exhausted, it dies. In reference to the uses made of this honey in New Mexico, he says that the natives make a very pleasant drink of it, which is made in the proportion of three or four drachms of the honey to six ounces of water. It has no commercial value, is not brought to market, but simply made for their own use. They use this drink among themselves in the mountains in cases of fever, where medical attendance cannot be obtained. The honey is also used by them as a cure for eye diseases, especially for cataract.

Being very anxious to see this insect alive, Mr. Krummeck very kindly did his best to gratify us in this particular, having twice sent us boxes of living specimens, but the unavoidable delay and knocking about



attendant on so long a journey by mail, has in each case resulted in the death of all the ants before they reached their destination, the packages being literally soaked with the honey which had escaped from their bodies.

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## ON SOME OF OUR COMMON INSECTS.

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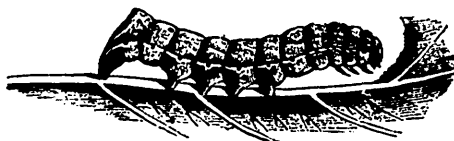
### *THE GREEN GRAPE-VINE WORM—Amphipyra pyramidoides.*

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BY THE EDITOR.

The caterpillar of this species, shown in fig. 2, is occasionally very destructive to the grape vine, with us more particularly affecting those

Fig. 2.



grown under glass, although it is not by any means confined to this plant, feeding readily on the plum, pear, thorn, raspberry and poplar. The larva is found early in June, and is full grown usually about the middle of the month. Its length is from one and a quarter to one and a half inches, the body tapering towards the front and thickened behind. The head is rather small, flattened in front, and of a whitish green color, with the jaws or mandibles tipped with black. The body is whitish green, a little darker on the sides, with a white stripe down the back, a little broken between the segments and widening somewhat behind. There is a bright yellow stripe on each side close to the under surface, which is most distinct on the hinder segments, and a second one of the same color, but fainter, half way between this and the dorsal line; this latter is more distinct on the posterior portion of the body, and follows the peculiar prominence on the twelfth segment, as shown in the figure. The under side of the body is pale green.

When full grown, this caterpillar changes to a dark brown chrysalis, either at or a little under the surface of the ground, from which the moth

appears in the latter part of July. This moth, which is represented in fig. 3, measures, when its wings are expanded, about one and three quarter

Fig. 3.



inches; the fore wings are dark brown, shaded with paler brown, and with dots and wavy lines of dull white. The hind wings are reddish with almost a coppery lustre, becoming brown on the outer angle of the front edge of the wing, and paler towards the hinder and inner angle. The under surface of the wings is much lighter in color than the upper; the body is dark brown, with the hinder portion banded with lines of a paler hue.

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### CORRESPONDENCE.

DEAR SIR,—

Mr. A. R. Grote has published a paper in the "Bulletin of the Buffalo Society of Natural Sciences," in which some statements are made which call for correction on my part. I shall not allude to his personal remarks, similar in character to those which he has made concerning others who have ventured to criticize his scientific work or to correct his mistakes; but to the palpable blunders into which he has fallen with respect to some species recently described by me in the Proceedings of the Boston Society of Natural History. The following is a list of those of my species which were corrected (sic) by Mr. Grote: *Hadena rasilis*, *H. vulgivaga*, *Glaea sericea*, *Agrotis exertistigma*, *Xanthoptera nigrocaput*, *Copipanolis vernalis* and *Mamestra illabefacta*.

Mr. Grote states that my *H. rasilis* is a re-description of *Elaphria grata* Hübn., referred by him in the List to Caradrina! If Mr. Grote will examine Hübner's figure, he will see that it represents a much larger, stouter, and entirely different insect. Mr. Grote has apparently overlooked

the fact that it is an excellent representation of the common species determined as *Taeniocampa oviduca* in collections; this, therefore, should be considered a synonym of *grata*, and *rasis* remain a distinct species of *Hadena*.

My comparisons were made with two copies of the "Zutrarge;" a fine one in the library of Mr. S. H. Scudder, and another more coarsely colored in that of Harvard University.

Mr. Grote remarks that my *Hadena vulgivaga* is probably a re-description of *H. apamiformis* Guen. I am perfectly well acquainted with Guenee's species, and *vulgivaga* has not the slightest resemblance to it; it is, as I mention in the description, a new species allied to *H. rurea*.

Mr. Grote states that my *Glaea sericea* seems to be founded on a specimen sent him for determination, and which he considered identical with his *Orthosia! apiata*. I never sent a specimen of *Glaea sericea* to Mr. Grote, and the species is entirely distinct from *apiata*. I did send Mr. Grote a variety of *apiata* for comparison with his type, and this he has probably confounded with *sericea*.

Mr. Grote remarks that my *Agrotis exertistigma* is probably only a Californian variety of *alternata*. After re-examining my material, consisting of two specimens of the former species and about twenty of the latter from Nebraska to Canada, I do not see any reason to change my opinion, but I should be happy to do so if Mr. Grote can prove the species identical.

Mr. Grote refers my *Xanthoptera nigrocaput* as a synonym of *X. Ridingsii* Riley. The fact is that the author's copies of the first signature of Mr. Riley's paper, containing the name and a few lines of the description of his new *Xanthoptera*, were distributed some time before my paper appeared (I did not receive a copy, however, until January, 1875). The second signature, containing the larger part of the description, has not yet appeared, to my knowledge (Jan. 25th, 1875.)

Mr. Grote's attention having been called by me to his erroneous arrangement of the species of *Xanthoptera*, he at once improves the opportunity to found a new genus, *Exyra*. It is obvious that this genus (even if a needful one) can not stand, as it is not accompanied by a word of generic diagnosis.

In a similar manner he finds a new genus for my *semiapata*, after having only a month before (see Proc. Ac. Nat. Sci., Phil., 7, 206, 1874) entirely mistaken its generic characters and placed it in *Apamea*.

Mr. Grote states that my *Copipanolis vernalis* is a re-description of his *Eutolype Rolandi*. The fact is, Mr. Grote has priority by one day (his paper was read Nov. 3rd, and mine Nov. 4th.) In the same papers were published *Apamea purpuripennis* Grote and *Orthosia baliola* Morr.; these species are synonyms and Mr. Grote's name has priority.

Lastly, Mr. Grote states that I have re-described Dr. Harvey's *Mamestra lilacina*. On the appearance of Dr. Harvey's description, I gave Mr. Grote a typical specimen of my species, and requested him to compare with the type of Dr. Harvey's species, and give his opinion. In his letter (which I should be glad to show to any one interested) he states unequivocally that the species are distinct, and on his word I published my description of *illabefacta*.

In this letter I have only referred to those mistakes of Mr. Grote's which, if allowed to remain unanswered, would create a wrong impression in regard to my work. I make no attack upon him or upon his work, although, if I were desirous of doing so, material would not be lacking.

The identification of specimens of the common *Agrotis messoria* Harris (already once re-described by Messrs Grote & Robinson as *A. repentis*) with *A. lycarum* Evers., a Siberian species, is an instance in point.

I am yours respectfully,

H. K. MORRISON, Cambridge, Mass.

GLAUCOPSYCHE COUPERI Grote.

DEAR SIR,—

As this butterfly has lately been figured as *Pembina* Edwards, the following remarks will settle the distinction between the two species:

"With regard to the *Lycæna* from Anticosti, I presume Mr. Scudder is correct. The original *Pembina* came from Lake Winnipeg, a single specimen or a single pair, several years ago. These types were afterwards lost in a box of insects sent by me to California. I had forgotten them, and some how, another species had been assumed to be *Pembina* by Scudder and others, and I had fallen into the error myself of thinking with them that *Pembina* was allied to *Lygdamus*. I discovered the fact last year, and called Mr. Scudder's attention to it. I think this *Couperi* was what had been thought to be *Pembina*, and Grote was correct in naming it *Couperi*."

Mr. Scudder writes October 10th, 1874, as follows :

"I formerly believed this to be *Pembina*, having received it from Edwards with that determination. I therefore named some of your first lot (as Mr. Mead says) *Pembina*. Afterwards I received a lot from your subsequent journeys, sent me by Grote. The specimens were poor and much rubbed, and I thought when I determined them to be distinct from the so-called *Pembina*, that ♂ and ♀ alike had a broad marginal band. Mr. Edwards was the first to discover his own error, and drew my attention to it. We do not know *Pembina*; it is temporarily lost to science, but it will turn up one of these days. From Edwards' description and the context, it is plain that your butterflies are *not Pembina*. After *Couperi* was described, I saw many other and fresher specimens, and then discovered my mistake (accepted and published by Grote) about the distinction between your two lots of butterflies, and found that although Grote was in error in describing *Couperi* as distinct from the so-called *Pembina*, the name must stand because the first one, apart from *Pembina*, was given to an insect which was not *Pembina*.

"There are but two known species of *Glaucopsyche* in America :

"1. *Lygdamus* of the South.

"2. *Couperi* of the North, long supposed to be *Pembina* Edw., which however belongs to a distinct group."

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PAPILIO BREVICAUDA, Saunders.

I have received specimens of this butterfly from Percé, district of Gaspé, the north shore of the Gulf of St. Lawrence.

WM. COUPER, 67, Bonaventure Street, Montréal.

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COLIAS PHILODICE.

DEAR SIR,—

Mr. W. H. Edwards informs me that Mr. Mead has determined by experiment that this species becomes crimson on the contact of the wings with cyanide in the collecting bottle. This accounts for a supposed variety of *philodice* sent me by an Entomological correspondent in good faith as having been collected by her. The lady reported that she had not particularly noticed the specimen at the time of capture, but on setting

her specimens she found that one of them had crimson patches on the wings. I have not seen any mention of the fact before in print, and as the illusion is very complete, owing to the brilliancy and thoroughness of the color, its true origin should be brought to notice, that others may not be deceived thereby.

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

DEAR SIR,—

On page 117, of vol. vi of your journal, Mr. Grote kindly furnishes us with a list of all the species of Noctuidæ common to this country and Europe, known to him. The following may, very safely, be added :

*Ichthyura inclusa*—Prob. *I. inversa* Packard.

*Calocampa vetusta*—New York, New Jersey, &c.

*Graphiphora plecta* Ochsén., N. Y., N. J.

*Agrotis ypsilon* = *A. suffusa*; *ypsilón* has priority.

*Hadena chenopodii*—New York, Michigan, New Jersey.

*Calligenia miniata*—New York.

*Plusia urticae*—Penn.

*Eugonia magnaria*—Either *E. autumnalis* or *E. alniaria*, I forget which.

The last three I have received from Russia.

It may also interest your readers to know that *Danaïs archippus* is found in Queensland, without any variation that I can see. There is, too, a very suspicious resemblance between some of the Labrador species and those of Europe—for instance, between *C. phicomenes* and *C. nastes*; also between *C. pelidne* and our *C. philodice*. However, these require further investigation.

W. V. ANDREWS, New York.

DEAR SIR,—

A note on p. 92, vol. vi, CAN. ENT., states that Mr. Grote, of Soc. Nat. Sci., Buffalo, received specimens of Coliadae taken by me in 1873, on Anticosti. I wish this error corrected, as that gentleman had no *Colias* from the collection made that year on the island.

WM. COOPER, 67 Bonaventure St., Montreal, P. Q.

## BOOK NOTICES.

The Distribution of Insects in New Hampshire, by Samuel H. Scudder—a chapter from the first volume of the final report upon the Geology of New Hampshire, pp. 53, with two plates and several wood-cuts.

The species of the Lepidopterous genus Pamphila, by Samuel H. Scudder, pp. 12, with one colored plate and one uncolored, from the Memoirs of the Boston Society of Natural History,

We have been favored by the author with copies of both the above papers, for which we tender him our sincere thanks. The first is a valuable contribution to the Entomology of New Hampshire, treating more particularly of the Butterflies and Gryllides. The second, besides valuable notes on the species enumerated, contains convenient tables, by the use of which the males and females of the various species may be readily determined. The colored plate, containing two figures, is a chromo-lithograph, nine stones having been used in producing the tints. The execution of this plate is excellent; the artists are Messrs. Sinclair & Son, of Philadelphia. The second plate illustrates the abdominal appendages of the males of eight species.

Entomological Contributions, No. 3, by J. A. Lintner, Albany, N. Y., with two photograph plates illustrating 12 species of Cæcullia. We have already noticed this work in vol. 6, p. 120; the addition of the two excellent plates in the present copy adds much to its value.

## BOOKS RECEIVED.

- Note sur l'œuf et le Jeune âge de la Chenille D'Éneis aello, par Samuel H. Scudder. 8vo., pp. 4, with one plate.  
 Supplement to the List of North American Noctuidæ, by A. R. Grote, from Bul. Buf. Soc. Nat. Sci. pp. 15.  
 Proceedings of the Academy of Natural Sciences, Philadelphia, part 2, April—September, 1874, with three plates.  
 On the Habits of Some American Species of Birds, by Thos. G. Gentry, from the Proc. Acad. Nat. Sci., Philadelphia. 8vo., 14 p.  
 Proceedings of the Boston Society of Natural History, vol. xvii, part 1, May—October, 1874, pp. 128.  
 First Annual Report of the Ross County Horticultural Society Chillicothe, Ohio.  
 Third Annual Report of the State Pomological Society of Michigan.  
 Monthly Report of the Department of Agriculture, Nov and Dec. 1874.  
 Bul. et in Buf. Soc. Nat. Sci., vol. 2, No. 3, September, 1874.  
 Nature to Jan'y 14, 1875.  
 Science Gossip to Jan'y, 1875.  
 The Zoologist to Jan'y, 1875.  
 Newman's Entomologist to Jan'y, 1875.  
 The Scottish Naturalist, Jan'y, 1875.  
 Journal of the Agricultural and Arts Association, November, 1874.  
 Journal of Education to Dec., 1874.  
 The Canada Farmer, Toronto, to Jan'y, 1875.  
 Psyche, The Indiana Farmer, The Prairie Farmer and Le Naturaliste Canadien.