

## Description of the larva of *Silpha americana*. *Lin.*

By F. G. SCHAUPP.

*Form* oval, very broad, broadest at middle.

*Color*, deep black above, dark gray beneath.

*Length* 20 mm.

*Head* small, rounded, broader than long, slightly scabrous anteriorly.

*Eyes* four on each side.

*Antennæ* four-jointed, first broad but very short, the three others of equal length, much longer than the first, the third dilated at the outer side near the tip, fourth slender, tapering to a point.

*Mandibles* short, very strong, obtuse, two blunt teeth at the inner side.

*Maxillæ* thick, short, first joint small, 2nd joint large, broader at base supporting the lobe, first joint long and thick, slightly contracted near the middle, and with a row of stout bristles at the inner side near tip, and the second joint very short, flattened and hairy at tip, looking like a cap surmounting the first joint; the maxillar palpus three-jointed, the joints being nearly of equal length, the first constructed at the middle, the 2nd slightly clavate at tip, 3rd tapering to a point.

*Mentum* heart shaped, ligula of nearly same form, labial palpi widely separated, with two joints of equal length, the second more slender.

*Prothorax*, much broader than head, twice as broad as long, broader at apex.

*Meso- and Metathorax* shorter and wider than prothorax.

*Abdominal segments* nine, of equal length, becoming narrower towards the tip, each with an impressed puncture at each side, a very short anal fork; posterior angles distinct.

*Legs*, rather short, stout, *coxae* thick and glabrous, *femora* elongate, pilose, *tibiæ* short and cylindrical, studded with strong spines, *tarsi* with one claw.

As I remarked (Bull. II, 30.) the raising of *Necrophori* and *Silphidæ* would be a very easy thing, so it was. I have tried it with but two species: *Necrophorus tomentosus* and *Silpha americana*, and I was successful enough.

The larvæ of the different species of *Silpha* resemble each other very closely; they are stout, broad and entirely black. They run and grow very quickly and are hearty eaters; they moult about every fifth day, just after a moult they are snow white, but soon become black.

One larva obtained May 20, was motionless June 20, pupated June 23, developed July 4.

### Explanation to plate I of Vol. V.

1. Larva of *Necrophorus tomentosus*, Web., described page 37 Vol. IV, of *Bulletin*. a. head above; b. head beneath; c. antennæ; d. maxilla; e. mentum.
2. Larva of *Patrobus longicornis*, Say., described at page 56 of Vol. IV. of *Bulletin*. a. head; b. antennæ; c. maxilla; d. mentum.
3. Larva of *Silpha americana*, Lin., described at page 2 of Vol. V, of *Bull.* a. antenna; b. maxilla; c. mentum; d. leg.
4. a & b. Pupa of *Cicindela repanda*. Dej.
5. Pupa of *Chlaenius laticollis*, Say.
6. Pupa of *Galerita janus*; 6a. lateral appendage.
7. a & b. Pupa of *Dorcus parallelus* ♂ described on page 35 Vol. IV, of *Bulletin*. 6b. anus of ♀ of *Dorcus*.
8. *Sesia Syringæ*, Harr., described at page 17 Vol. V, *Bulletin*. a. larva; b. pupa; c. part of antenna of ♀; d. part of antenna of ♂; e. mouth-parts of larvae.

### Remarks on some Coleopterous pupæ.

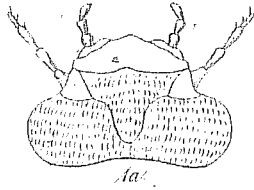
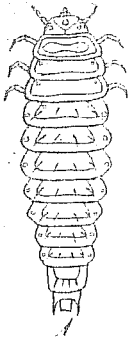
*Cicindela repanda*. Mandibles very large becoming black a few days before the development of the imago. Sides of abdomen with five stout processes, those on the fifth segment very long. [In some of the specimens I had, these processes were clothed at tip with a brush of hair, others were not, but of all developed *repanda*.]

*Chlaenius laticollis*. All segments except the last two are hairy; abdominal segments 3 to 5 have a lateral process terminated by a knob, while the pupa of *Chlaenius leucoscelis* have no such process.

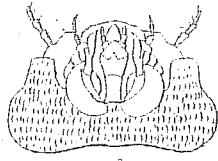
*Dicaelus dilatatus*. Resembles the pupa of *Chlaenius*, but is more glabrous above, and the abdominal segments have instead of the lateral projections only bristles.

*Galerita janus*. Head and prothorax much narrower than any of the preceding pupæ; it is like the larva of the species, of a very peculiar form and it differs from the pupa of *G. Lecontei* figured in Packard's Guide p. 433 by having the lateral appendages not pointed, but with a little knob at the tip.

F. G. SCHAUPP.



1a.



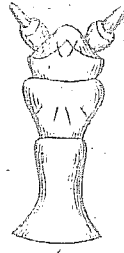
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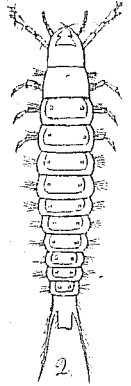
1c.



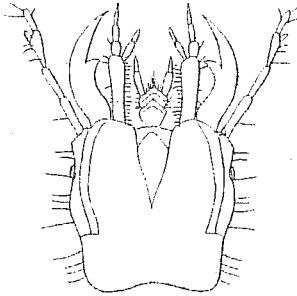
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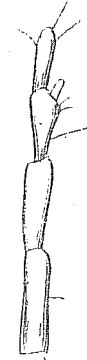
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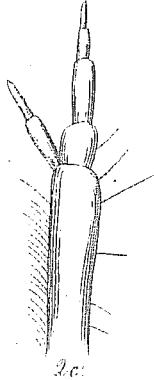
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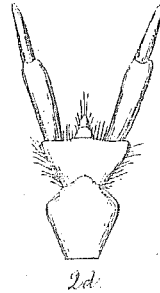
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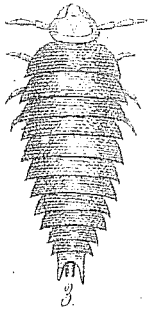
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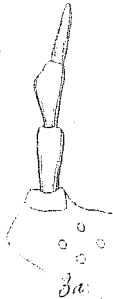
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2d.



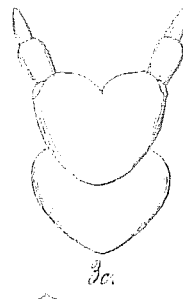
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3a.



3b.



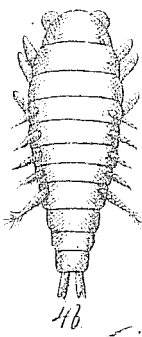
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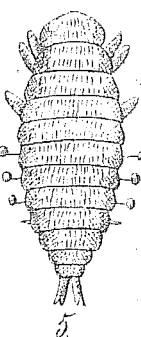
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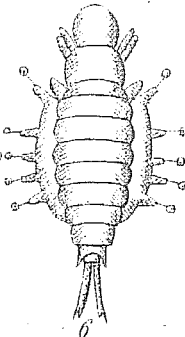
4a.



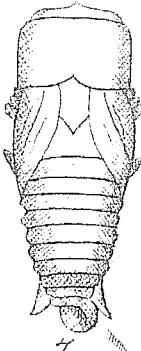
4b.



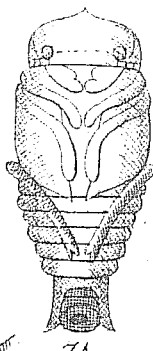
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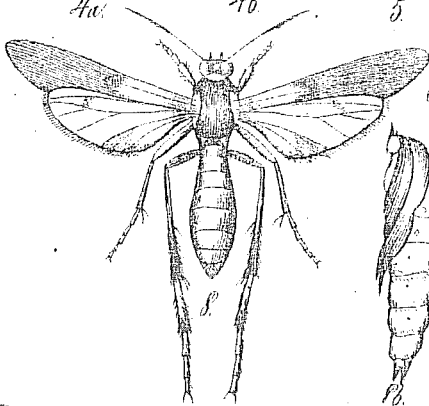
6.



7a.



7b.



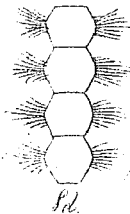
8.



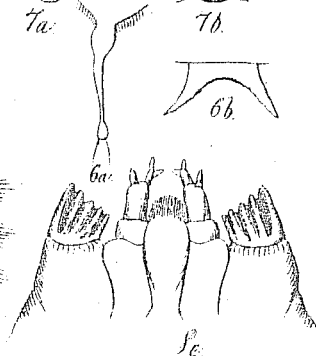
8a.



8c.



8d.



8a.

8b.

8c.

Z. D.

# BULLETIN

OF THE

## Brooklyn Entomological Society.

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No. 1.

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### INTRODUCTORY.

With this number, we commence a new volume, and we hope a prosperous year for our BULLETIN. We trust in the future as we have tried in the past to make it a compendium of useful Entomological knowledge.

For the coming year we promise for the Lepidopterists a completion of the "Synopsis of the Genera of the Noctuidæ," the continuation, in perhaps a somewhat different form of the synopses of Butterflies, and general articles of interest about the life history, so of the larvæ and imagines of Lepidoptera—for the Coleopterists we shall complete our synopsis of the *Carabid* genera, besides this we shall have as usual, descriptions of larvæ with an occasional plate, and articles of general interest on the habits etc. of beetles. If there should be space remaining after this, or if our subscription list should warrant us in enlarging our BULLETIN we shall also give synopses of the species of some of the Noctuid genera and further synopses of Coleoptera. In any case we shall make our BULLETIN the most useful and practical work for the collector and student of Entomology that our space admits of.

Believing that our collectors would rather know the species already described than to read descriptions of new species and varieties, often of doubtful validity and based on imperfect or rubbed single specimens, our BULLETIN will aim in the former direction entirely and new descriptions will be few.

We hope that our subscribers will favor us with prompt remittances for the amount of their subscriptions for Volume V, to be sent to the BROOKLYN ENTOMOLOGICAL SOCIETY P.O. Box 90, Station W. Brooklyn, N. Y., whence also all communications for the editors should be addressed.

The Publication Committee of the

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