Saperdonia american.

Deposits 2 and subsequent days. Eggs also on strawberry and cranberry plants. Flattening infrequently with a circular depression from which radiate bristled ridges. Large transverse diam. about 56 mm. Color straw color changing to reddish and black as larvae develop.

Eggs Hatched May 4 1889.

After first moult - May 15 - 11 days.

Above dull purplish darker in the subdorsal region. Wings dull grey. Below dull yellowish. (1) Dorsal line w. a. & a lateral line white. Ventral (under and less clearly marked) especially the inferior of the two. Stigmata and reticulae. Tub.-Blackish and indistinctly zinged. A few whitish markings above. Long. lines. Ant. and post. black. Head ant. anterior shield. Length (mature) 6 mm.

After second moult - May 22 7 days

Much as before. The markings more distinct especially the dorsal and lateral lines and the set. Tubercle. Purple shades most prominent in region of stigmata. L. 10 mm.

After third moult - May 28 4 days

Markings as before. But more distinct. (1) Tub. stig. line which is faint on antennae says. Two white rings (set. Tub. placed diaq. ant. to infra post. very distinct.) similarly placed in dorsal region lat. To dorsal line & somewhat. 3. Other indistinct. Legs with an anterior nutrid black & a few black p. Dorsal black. Head and anal eg. light brown. Colour above. (and below on 1-3) dull nutride with purple tinged w. green esp. dorsally. Below light grey w. a. blotch of purple besides the stigmatal line on each segment. Dorsal line w. a. bluish tinged w. L.
After 4½ months June 2
Marked as gynae with less distinctly colors more dull and ground color darker.

After 5½ months June 8

 Mature Larva - green

Dull blackish, with lateral dull purplish tinges. Dorsal streak indistinct bluish white somewhat irregular. Dorsal and subd. lines normal but quite notably distinct. Ven. upper edge above and below with blackish. Lateral streak downwards white. o. a. bluish tinge. Stigmata black.

Set tub. f. b. black pt. wings with bluish white, more below than lat. line more distinct.

Head blackish, ant. l. ight shining brown port.

Thorax 8.d. lines entire, Mid Black.

Frontal shield very distinctly. Horn strong.
Scopelasoma Walkeri.

Eggs laid as in preceding species and both their and the young larvae indistinguishable from it. Ego hatch May 5.

After first month—May 15

Not distinguishable from (1).

After second month—May 23

(Somewhat darker and more tinged) w. dull purple (had much darker lower and cal. line much less distinct. But seems to N1 almost.) Not separable.

After third month—May 29

Not separable. Somewhat darker less distinct and dorsally than N1.

After 4th month—June 5

Much darker dorsally than N1. Being a rich almost black purple: The s.d. lines hardly visible and the d. line faint. The Calabar lime heavy and clear contrasting with a rich (170 tinged) w. purple. Sf. white. Similar than in 1. inferior pimplies shades more pronounced frontal head blander feet white.
After 5 months June 10

Much richer than 1st. 4. purpl.

Above ventrally black. Fingers w. gum and

Incisions and emb. dorsal lines barely

indicated. St. tub. barely visible. Except

where below. The cut line which is clear

contrasting white (diff. from 4 in being whit and

1 in being heavier and much clearer without bluish

fing. somewhat oblit. on 234 11 12. Frontal

shades having. Sup. sl. line clear & contin.

Omit it. Tongue w. yellow. Pensation bluish

green. Emb. lateral (and ventral on 1-4)

Shades. 2.

Firm as in 1 a little stouter.

Head as in 1 but more broadly robust. 2.

Light brown.
Scopelosoma vimineum

Eggs laid as before.

Hatched May 9.

Young larva as in 12 perhaps a little lighter, but varying in shade.

After 1st month: May

Head black lighter.

After 2nd month:

Purple shade ex an 1/4 confined to the region in cluded by the lateral and supramaxillary line.

Tail tip divided by a dorsal line more continuous and longer but less contrasting than in 1/33 hind wings.

Head light brown dark ant.

After 3rd month:

Head darker brown.

Head light brown.

After 33 moths:

Much as before. The purple duller and less distinctly defined.

Dorsal and lateral lines more distinct. Head shining.

Inf. line only indicated. Wings flat and not in walls in this species.

After 4th month.
Mature - Lane - dark.

Dorsal parts olive green, somewhat mottled, two distinct. Below, s. d. (cup), and lat. d'org. same color, in. s. d. line marked by a few dots. Laterally 1-3 lines distinctly suffused with purplish green. Beneath line 1-4 red-purple else as before. Paraclunia.
Scopelosoma 3-stigmata.

Eggs as in No. 1. Laid May 5th 5th.

Young Larvae does not differ from No. 1.

After 1st Month. May 15th. 11th 13th.

Not separable from No. 1.

After 2nd Month. May 22nd.

Not separable from No. 1. 2 11.

After 3rd Month. May 28th.

First sign of a decided difference from No. 1.
Color similarly but not noticeably, more closely
brightly. The lines and spots more distinct.
White wriggled tubercles in the dorsal region
lying inside the dorsal line and placed more
further from 1 distinctly the upper being longer
than the lower separable and distinct. Else as
in No. 1. 228. 2 15.

After 4th Month. June 3rd.

Larvae No. 1 more clearly marked. It is
not above mentioned of the same size but both
much longer than in No. 1. The lines clear.
Curved moderately narrow. 25 mum.
May 9th. June 8th.

Marine Lance

Much like (?) and readily mistaken for it but differing in its richer red purplish color more indistinct S & S.D. streaks. Color more uniform appearing frosted when viewed at distance. The most noticeable difference is in the lateral band which becomes much broader post. and tinged w. orange yellow or the frontal shield. The sup. emb. d. line does not extend ant. to head and is much less distinct. The st. tub. under a glass are somewhat larger.

Entombed earth June 16th.
Scoplosoma devia.

Young Canna: milky head black, hips protus, shield
and 1 2 black. L. 2 in.

After 1st month, May

Milky white, change then before black parts
contrasting yellow rib. black. Gains pumplish, califer and dark at time 2.

After 2nd month, May

Much as in similante (canna 23) but paler.

After 3rd month

Paler

Lighter than any of the other species but nearest
similante from which it differs distinctly by a lateral
distinct submarginal line and by the absence of
purple at sites on by 1 3 except just above the
left white line: dorsal surf. light - bluish
green motled with whitish. Lower pants vary
light. Protop only. Black shield black.
After 4th month - June 10

Very like vincenti but paler. Above greenish white w. a bluish tinge in the with darker skin shades. Dorsal and sub-dorsal lines distinct (Vt. better slightly larger and very distinct in frontal plate) both rigid w. darker shades and contrasting the space between them. Vt. sup., s.d. and Cat. lines in dark olive green tinged w. purple and darker impar. and w. a few white dots. Saltoral line somewhat broader than vincent. But less clear. slight purple tinged at base of process which are black. Head much lighter than vincent and is black frontally

After 5th month - June 15.

Malum Carvoa. (See Cat. impress.)
6. Calocampana invena

Eggs laid in patches on strawberry etc. Haltied.

Hatch May 7. Young Larva 1st Stage.


Second Stage. May 17.

Dark green above light green tinged with yellow below. Oral cilia and head lateral whitish. Streaks. Black dot as before less distinct. Head lighter brown numerous black dots. Very slender 10 mm.

Third Stage. May 26. (4.9.2)

d. 25.1. 2 fro. 1st creamy. Above winged w. Blackish. Head thickly mottled w. more deeply a dirty white. patch. Zera as before 15 mm. Black dot very indistinguishable. winged w. bluish

4th Stage. June
4th Stage June 1st.

Much as before colors and contrasts more distinct. The larva in this stage acquires new blotches on antennae, pairs of legs, previously rudimentary. Specimens vary much in intensity of color, some having the posterior edging of the lateral line almost black. Black dots hardly visible rings broad.

5th Stage - June 5th

Lateral, dorsal and lab. lateral lines creamy yellow. The first contrasting strongly with a black edge, edging. Stems tinged w. cream. Varies from almost black green above to light green. On each side the dorsal line and 3 contrasting white dots. The median in place. Normally except on 1 (now) and 1/2 (1) on 223. The central dot is moved post. opposite the post. This spot. On or near white dots near each edge. Below edging in same. Head light green is. Next something.

5th stage June 10th.
6th eff of S. Devon

Nearestverbatim but a Haeker looking lance. A rood dorsal black band mottled ill defined alternate into ying and including the hardly visible light dorsal emblem just cf. d. surf. greenish grey & black mottled. Sup. s.d. broadly edged w. black but very indistinct fancy m. anal and 1st leg. Lat line clearly defined white w. a few black mottling below this catty black mottling to legs. Remainder light greenish plus black head ant. Blacker than mottled.
Colocasia esculenta
Eggs 1st April. Hatched May 5.
First Stage.

Not separable from C. esculenta except that
they somewhat resemble Va. Black Tribulus, are
much less distinct in young. [Redaction]
Second Stage May.

No. 7. Naraoma lasus ventilator.

Eggs laid on sumac. June 5. Cream color
soon changing to reddish by the appearance of
numerous reddish flecks.

Hatched June 10.

Larvae pear-shaped, yellow green with black uli.
Fibers. Lower half of upper labial pair; 2 dorsal and 2 pro-
not. Head jet black. Legs and prolegs blackish
at base. Frontal shield blackish. About 3 mm.
Legs normal. 5 pairs 3 prolegs.
Second Stage June 15.
Light yellowish. The intestine and contents showing a few tiny pinna. The dots most conspicuous. The upper part lateral. Each row of spots (six dorso) includes two on each segment. Head greenish-yellow with a lateral semi-circle of closely set black dots. Eyes light green. 2. 4.5 mm. Short tip post. Head somewhat retractile.

Third Stage June 20.
Powdery greenish-white. All the dots but the sub-dorsal and sub. stigmata are hardly visible. The latter very large and contrasting. The sub-stig. spots are 2.23 smaller and placed sup. A few short lines of greenish-yellow with black spots. Two rows of spots on each segment. No. greenish yellow. Row of spots on cut head as before. Eyes light green. 2. 7 mm.

4th Stage June 24.
As before, although spots larger, greenish.
Spots much larger and indented to a S. di.
two or each segment in ant. about 2 x as
camp as posterior, and a stigmatal nod
each spot round including a definite
anterior plate and frontal plate of black Vin
Cattur terminating externally and anteriorly in
two black dots. A black dot at base of lip
and two of prolegs a large black Cattur
rectangular patch on head largest diam. trans.
then as inparae. A fine white Cattur line.

Mature June 3d went into moss July 5.
Salcoppera limetita

Homoptera minixe.

Eggs laid on maple and willow May 29. Flat and finely not deeply ribbed dark reddish egg.

Hatched June 7.

First Stage


Second Stage. June 11.


Third stage June 14.

Somewhat darker. Than before else same. 19 mm

Packardia geminata?
Egg laid from 20 oak.
Hatched July 2. 12 days.
No. 9. *Crociopha Normanii*

Eggs on *Euryops* May 30th.
Light grass green a short time after deposition a white block appears at upper pole which is encircled by a similar red band the rest completely.

Eggs hatched June 5.

**First Stage.** June 5.
Light grass green; paler infra. Large
Black setif. lab. bearing black curved hairs
2 subdorsal placed longitudinally. The post. placed externally
Another placed anteriorly below. The 3D. and 8. regions
a lateral placed centrally. Head light straw color
with a lateral black patch. Probos and eye light

**Second Stage.** June 9.
A dorsal sub 3. and mod lat white hair else
as before 7.5 mm.

**Third Stage.** June 11.
Bluish green above; space below 8 d. and 1st
edge darker than dorsal. Dorsal row distinct
b. gen. double. Head light green tinged w.
brown w. numerous small brown dots and
2 large lateral black patches. Sdt. Tib.
white ringed. 13 mm

4th Stage June 14

Color Dorsal:

The lateral lines distinctly
double except 1st segmentally. 21 mm

5th Stage June 20

Reddish brown dorsally variegated with a pair of
brown dorsal black dots in each eye. Dorsal
line blackish and S. d. region blackish not
xamer inferior. 1st doubled line which in
ring not yellow. S. d. line moderately
distinct. 2 black sub dots dots placed dog
sup. Eighth blackish. Blackish shade
set. Lat. and at end of 3rd. Had light brown
w. large double meseial green. Palet
and dark brown cast whopping. 26 mm.

Malum Lamosa.

As in preceding stage. The markings ill defined and the lamosa shading from reddish to yellowish. On 36 mm.
Homoptera 1. lineata

Eggs laid June 1. Cate like N. 8. Willow.
Hatched June 9. First Stage
Dark green ant. Cast 4. Eggs tinged w. yellow
2 lateral and 2 mid dorsal whiteish in lines.

Second Stage. June 12

Paracynia

Lophodonta angulosa.
Yellow green dorsal palla and a s. A. mid green
Yellow lateral line dull green. Black. Head black
and lip elongate
1st month - July 13.

Light bluish green above with a somewhat wintry appearance. 2 s.d. light striate - an ind. yellow dorsal lateral band. S. l. part extending to legs, dull red with light points.

Head and proboscis black. An elevation on dors. 11. Elongate; last 3 legs raised. 13 mm.

2nd stage - 2nd month - July 19.

A clear bluish green dorsal line on either side a wood bluish white band.

A narrow ind. dorsal bluish white line edged above and below w. bluish green and an inferior irregular fine blotch. A clear greenish yellow stippled lateral line edged above w. dull red. Sub. lateral irregular dull reddish marks. A 2-tipped prominence on 11. (upper s. m.) 65. legs.

Proboscs black. Legs w. an ext. black patch.

Pest without elevation. Body 2. 18.

Lateral (stigmatal) line very obscure edged above and below w. nd. A long. sub stigm. nd slash on 1/8 in. Above bluish green while a double blue green line. 2 o. d. white lines edged w. blue green. Body black. Legs green. Hind blue green w. darker mottling from 27 mm.

5th stage July 29. Mature Larva
Lateral yellow 1 and more linear, edged w. purplish red 2nd s. d. line = narrow, yellow stripe. A number of yellow spots on 1st. sur. Red slash has lines conspicuous on 1/8 and 1/11. Small vivid prominence on 1/8 sur. Stigma yellowish. Head green mottled w. black while edged (externally) in faintly w. yellow.

No. 11

Manuscript Notes

Eggs laid June 9. white w. a bluish tinge.

Hatched June 14.

Ralter rich yellow green. A row of s.d. almost d. Black set. tub. (leaving black short lines) set long. 2 on each eg. 8 rings. set. tub. placed cat on each eg. spot. want trans. Sr. on 1-3 all plain) costally trans. head light green brown somewhat mottled and w. a hat crescent of 4 black dots closely set. L. 4.5.

2° Stage June 20.


3° Stage June 26

As before but the lines more distinct. 2° f. w. dark green. Lant.행위. Apple green 15 mm.

4° Stage June 30
No. 12. Envyja Livornia

Eggs laid June 9. Cup shaped with a crown of white dots and a central green spot. Hatched June 24! 15 days!

Heliornis sp. rare useless

Laid July 11.
Hatched July 20.
No. 13

Glyphisca 3 - linnaeata

Eggs laid June 10

Apatila Lobeliae

Eggs laid June

Hatched June 22

Lobelia green, Eggs 1,3,4, 7,8, 11 dull red purple dorsally, Numerous long black hairs. Head light purple w. a few brownish marks.

2° Stage June 25

Color brown dull at

Jabber in

3° Stage June 28

Adoral yellow line broken on 4, dor. 1,3,4,7,8,11 dark brown somewhat mottled, interspersing 2 or yellow lattice portions yellow green. 5, 6, 12, brown mottled. A broken S.D. yellow line. Hairs long black. Oc. lattice grey. Head yellow 0. Two upper upper jaw hard against black 2055 and two lower upper jaw 2053

9 m.m.
4th Stäge July 1.

5th st. Jul. 5.
6 = clay June 9

7 = slt. June 14
Marasmus his trio

All stages found on cones at July 16th. 17.

Light yellow green without visible marks tapping point. L. 3 mm.

2nd Stage
Greener uniformly and more lumpy. A faint s. d. and l. line. A few faint white dots scattered over body. Head yellow green.

3rd Stage
Longitudinal lines, and dots distinct. Body much swollen uniformly somewhat like papils. L. 9 mm.

4th Stage
Mark distinctly marked and darker green. L. same L. 15 mm.
Mature lance 5° stage.

The sub-dorsal (almost dorsal) lines heavy indistinct on the most anterior segments. A pair of distinct stigmaed yellowish stripes. Stipitate light orange. Body expansely covered with flat whitish or yellow prominences of irregular size and shape. Apple green strongly tinged w. yellow anteriorly. Legs, palps and head green. Head and antennae tapering post. £ 22

Crown in leaves of blackish silk.
Charaxos propinquilines

Laid 18

1st Stage July 19

Very large buds in but much darker.
Epidermis much darker than...row of large clear red spots about 11/12.
Each egg is a large brain, row of...of which the red spots are in many
very long hairs. Rusty orange 1/2. Charaxes
taller long. A somewhat more 1/2 in.
lower yellowish. Head twist w. a red
modulus plateus. 2. 2. 5. m m.

2nd Stage July 24

Much as before; darker w. blackish antennae.
Ting. 4 m m.
Ichthyura indutata Pack.

Found singly in caves on willows. Will eat poplar. Very like strijosa but the yellow warts more conspicuous. Markings much as in strijosa but less distinct and this varying considerably never as dark as strijosa type. Separable at once by its black stigmata and brown head. The head of strijosa invariably black even in the white examples.

Cocoon Sept. Imago May-June. 2 Wood
Any. Head sometimes nearly black but dull black, stigmata invariably 13 examined.
2nd July 19.

Egg light bluish green.

Dull medium brown w. many fine long wavy white streaks. Indesp. dorsal yellow shaded. Head dull black.

Pair 28.

Remarkable 3 branched toothed projections from ant. 1 ventral curved and zigzag. Thin proj. connected by a collar.

On 4 C 11 12 a pair of similar unbranched projections. Vitta on 5. Vitta shortish. 2. 4.

2' Stage July 23.

Red brown variegated with yellow. A dorsal yellow line splitting into a long narrow shaped patch on 4.7 ind. again widening from post 8 to anal tip. Mottled w. red; a wedge shaped red patch. Vitta 11. 12. Dorsal head dark red. Fem....

3' Stage July 28.

Lozenge patch cleaner and lighter centre with somewhat reticular fine red figures. Dorsal 13 and

Note: post in 8. Remaining portions marked 2. Indesp. fine alternately red and yellow with 2 co.

Indesp. 2 red and yellow with 2 co.

Fem...
4th stage  Aug. 8
As before. The red predominating and the portion
wide shaped patches indicated by two converging
(mat. red lines) and lines. A faint broad red stage line.
5th stage  Aug. 9. Mature larva.

The typical larva is green.
Heliocampa marthuisa

Laid July 11 19th 20.
light green with a much broader red band. A pair of projections on ant. 1 red + yellow at base. Anal pair 5 eyes dark. as in cervus red and twelfth yellow alt. Intensile 2.5-6 mm to tip tail 10.5 mm

2nd stage July 25th

Dorsal band continuous, enlarged centrally on each segment noticeably on 5 & 10 ind by ant 1. Plant any oblique lateral lines from a S.D. yellowish line from ant. 3 1/2 up 25. the same 5. c. portion of the 2nd posterior 25 & 40 1 3 stub. red brown. 4th yellowish.

3rd stage Aug 1

Dorsal line became contracted intersegmentally mostly stippled w. yellow. Body covered w. numerous black points. A lateral stipmedal row 13 red spots + 7 w. yellow wanting in many in 46.11 those on 426 generally double. A + white triangular green + red and center w. yellow. Saddle shunt 2.68 mm tail 6 mm.
4$slage Aug 8.

Much as before: the slage becomes more distinct and the lateral red spots less frequently present.

5=slage Medium Canyon Aug 17.

Light apple green often tinged with blue. A clearly defined heavy white or reddish dorsal line. (The lateral red spots rarely present in most of this breed). Showing a tendency in some specimens to enlarge or merge. 46/11. Varies very much. In some broad mottled w. pinkish in others fine lined nearly white. Head more broadly edged. No obvious dash (passing thru eyes) on 3-4 most conop. greenish yellow all. The 8 oblique dashes pass down and back to the anus in a subterminal heavy greenish yellow streak. Tails yellowish white to pinkish.
Pupation: Of dark brown inferiorly and near the dorsal line. 40 mm more or less, varying much in size. Pupa extended on underside of leaf. Sucks dull pinkish purple before making a thin cocoon near the surface of the ground in which to hibernates till the middle of June. It emerges appearing in July.
Nonagria subflava

Larva and pupa in rocks July 25.

Dull white tinged with yellowish green.

Without marks except a few brownish reticulations.

Head black.

Thorax and abdomen yellow.

Larva and pupa in rocks July 25.

Dull white tinged with yellowish green.

Without marks except a few brownish reticulations.

Head black.

Thorax and abdomen yellow.

Larva and pupa in rocks July 25.
Egelsland July 26 - N. East for 20 Aug 20
Monagraea solong a etc.

Argamia diff.

Before last month. Below 6000 feet.

Dorsal region dull reddish with a central olive tinge. Lateral parts lighter reddish.

The stigma black. A few dorsal blackish shades on 1-3 and two elongate black at stigmata on the post edge of 11 plates transversely. A longitudinal somewhat irregular sub dorsal fumous placed slightly diagonally on each segment. Two sub lateral fumous (longitudinal) and a transverse 2 posterior and less noticeable anterior fumous on each segment. A central heart shaped depression on each segment. Frontal shield light brown w. central whitish line and two anterior whitish depressions. Head dark bluish brown. A few minute black points scattered on body having minute black hairs. A circle does not constrict Conus. Flattened tapering slightly and elongate. No much less so than subfamily to which it owes little resemblance.
Malin Lance

Mr. Platind them at sea. Color dead khaki black, with a very faint hint of reddish brown. Light in general. No red color. Head almost black, mahogany also frontal. Anatomical legs stick up. Stimulus in Eq. 11 very interesting. Probably yes. Fidus milk of Typha, burning into bone of mid.
Sphida obligna?

In pickerel weed. Hardly separable from the above common smaller withings of olive green. A hundred found Sep 10 - 20 also in burr reed. Same anatomy (curious arrangement of bladder like tracheae). Eats in leaf stems and plant stems. Might have found hundreds.
Apalus occidentalis.

On apple of the lobelian group Ut-
diano having the same habit but-
only approaching the same coloring in
its early stages. Make it a restor
nose.

Under glass seen to be powdered w. black ph.

A broad dorsal bluish black band
ending in a large hump on leg 11. and interw. deep

On 4-10 inclusive is a peculiar shap'd ornament consisting of velvety
black ground in which are included six
spots; two placed longet. forming a dorsal row of dark orange spots (almost conned to 9-10)
Two diminished blue black spots
placed externally to the posterior end of each
anterior orange spot. And externally of
all a straw colored spot forming a
s. d. row. A broad s. d. pale blac band
broken by the dorsal ornament and a much narrower and less bright
In most predaceous ones. Whole lateral portions very pale purplish to blackish powdery with black alons (under glass). A yellowish
intertwine bearing several brownish hairs just above behind and below the black stipules and another much larger one at base flys.
A fine dorsal yellowish line on 1-3 and a
transverse row of tubercles bearing long yellowish
brown hairs. Those on 1 projecting horizontally
forward. Head dull red with post fades into
dull black and: An arrow shaped anterior
mark. Prolegs black. S. 35 mm. Coconuts
Sept 20-31. 7 specimens on apple.

Determined from drawings made by
Riley.
Heliconiinae guttata.
Hides on oak, apple, walnut (maturing),
dull red with an ill defined yellowish dorsal patch on 9 2 11. Two 4-branched spinous projections placed
sub-dorsally on 1 and a sub-dorsal row of 2-jointed
spines on fig. 4 & 5. Posterior slit, each manica
fin hair at apex 3 mm.

2° Stage July 2°
Dull reddish greenish yellow on last two legs.
A sub-dorsal greenish yellow line. All spinose
spines except two points on s.d. 1. 8 mm.

3° Stage July 6°.
Hollowish green with red wings. A s.d. yellow
and white band broken on 6 by a reddish
mark running into front pair of legs. A red
mark runs diagonally up and forward from this
pair. Last pair of legs red. Various reddish marks
dorsally. 3 15 eyes, much mottled ad mid.
Head greenish in a double red brown line from
I

July 13

Varies from dark apple green to reddish. Axial coloration lateral and dorsal bands vary. Predominantly between 1 and 2 mm. Central black mark and dorsal patch on 1.5 which is more reddish by 0.8 mm below which it does not extend. The 2 bands are turn red and deeply reddish and 2 post more reddish, atexit back to green. Some specimens have various lateral 50 bands and a short dorsal patch of 1 divided by crenate color and mark extending to 4th band being the lateral.
mark many died down and forward 20-30 ft. in pools. Subject to great variation in size of red. Head large w. a triple band of black, yellos, and calyceal red being external 20 mm.
Apalata opercula.


June larva. Lipo prominent with a row of lamellae. Whitish tube placed transversely on each ring bearing long blackish hairs. Three tubelets in 478 mm. Cephalic bending and forming transverse red patches. A red line on 11. Head 7/16 mm.

First month. July 5.


Bright green - Punical yellowish. Pilecitus as well marked as before. The s. d. 25. Intercalaries post. 2 Luminous with many blackish moltings forming an irregular 2 ill-defined dorsal & s. d. band.
3rd month July 16

The dark portions predominated having a lateral and slender dorsal bands. The two former including on each eye post 3 a black nictitans. The nictitans being short black hairs among shorter white ones and form with the irregular reddish black nictitans a which connects them longitudinally a horizontally well defined dorsal and s.d. band. Head yellowish with a post. Depression black circular or crescent shaped free mark. Nuchal and anterior yellow a few nictitans. 2 or 3 yellow spots tips in post portion of s.d. of premach time.

4th July 20

Varies from a form wholly blackish with linear white nictitans, a whitish lateral and banding in nuchal and front d. line with black head obscuring nictitans yellow with white predominating. The lateral and s.d. bands being very distinct with a few black spots. Nuchal there is a family well marked dorsal black extending in the head nictitans black and yellowish dorsal band. A band similar to this separated in s.d. 2 calarid lines; head strong color a few black points. Both forms densely covered with stiff whitish nictitans hairs each interspersed
Varies somewhat. Vent. much in shade. Bluish-black mixed with whitish lines and dots, lighter ventrally. S. d. and lab. lines clearly marked in most. Vent. often indistinct and varying in shade from brown color to orange. Not traversable on edges. The lab. line well defined, varying from brown to yellow. This is sub-epipenial. Stip. black, rings "head" black generally. Two cup and yellowish brown feathers. A pointed V mark. Short cap. Port. L. 18 mm.

6th month July 31.

Black with an orange-bronzed subepipenial band which varies in individuals and is hardly noticeable in some. In some it very conspicuous. Stip. in contrast with else entirely black. Hardly separable from postcaps. To which it shows thus sp. very closely related. Differs in the absence of any sign of s. d. marks on post caps. and by the absence of any intermediates. Own hairs with the adoral tuffs 28 mm. in short tawny. Port. of tawny. Spins cocoon like this Aug. 9 89.

Images in Boston July 23 89.
Apatela eurupana.

Eggs on glass - June 29.

Hatched July 6. Ess. feeding on poplar.


First moult - July 13.

Paler brownish green. New dorsal wavy prominence from blackish, and forming enlargements of the dorsal rows of pines. A sub. dorsal row of blackish tubercles and two smaller lateral ones. Head prem. with large reddish black patches. L. 4.5 mm.

Second moult - July 17 (Thursday)

A dorsal white line. Large logenm. shadw. pustules on 4.7.11 extening to middle of adjacent segs. except. on 4.

A smaller somwhat indented comma
cetus 22 B (dorsal) The dorsal line runs wide
and is edge more or less continuously &
uniformly w. same color. The upper dorsal
rows of tubercles begin at 4 and broadly split with
which a head whitish w. 4 and 2 post black patches
and a post row, at black. 6th - tubercles black
nervous longer. 7th

3° Jul 22

A broad dorsal within brown band containing a redder from not well
defined central dorsal white which is continued beyond 11. 75 cm in
brown. The o.d. white line sufficiently clear, partly containing the upper
row of tubercles which are large round polished in black, smaller & less
clear on 2. 3. 10. A very fine white stippled stipple. The remaining
patches thin green w. black tubercles spacing wide. From 6 to 10

4.5° Jul 25

The cowrai did not flourish after this month and died without
growing much. Seems to be delicate and need fresh air.
Oxypotamia immaculata Pack.

Inflated as in *Leucostigma* - pale straw yellow.

The dorsal long pencil on 11 black with a basal shatt of straw colored fading into pale brown hairs.

The wedge shaped leaf on 4.5-7 ind. Bright straw yellow.

The two middle ones and a black median dorsal stripe from the post. one to the pencil on 11.

The small leaf.

The pencil on 1 black.

The main leaf and portion of body including head.

and body pale straw colored yellow.

September 1. on oak, reali various other plants.

Image September 9.

Fed on sunflower.
Apatea disca

Found about Broult on maple (rubra)
Sept. 4, 1884 - on Cutin hand.

Ground color light yellow mixed with purple
above. - 2.5. 5.5 = 5.5 thin. 5.0, 5.5.

Regions clearly marked off from
others. 5. & 5.5. regions clearly defined from
the rest. Body crossed by light yellow
lines which form a network laterally
and are strongly tinged with purplish
wormally & 5.5.

These alternate with
less regular transverse bands which
are black d. 2.5. & dull greenish in
the lateral & ventral regions when
they form meshes with the yellow ones.

There are large black dots on and through
the transverse bands. - One vein about
the length of a paper 0.0055 in.

Each vein forks into 8-10 on each segment. The posterior
set longer and are slightly narrower,
Unmedian dorsal line, except on seg 2-3 where the two are placed.

Fraucoralyx, and the last seg. When smaller, the upper tubercle is wanting.

Tubercles are somewhat dull corroded at bottom, short, stiff, black bristles.

There is also the usual ventral set of 1 where there are 4 small yellow tubercules (brownish-yellow at their bases) on either side of a median bluish-white band. The anterior pairs being a simple median long white bristle. The posterior pairs a shorter black bristle.

In the dorsal 2 pairs between these 2 anterior dorsal tubercles on each leg are two conspicuous somewhat circular black spots formed from the interruption of the transverse
Black bands. The parts about human intercalary are almost three times my purple. There is also a red.
row of orange in intercalary being long yellowish yellowish
head and also several dark yellowish
tribe in the late 28 C. regions being yellowish
yellowish leaves. Eg. 2 petals yellowish
yellowish freckled yellow brown and a few darker
palatine. Legs 2 petals yellowish L. 25 mm
Palatine glands
Eg. 2 petals. Roots had bent round like
fumarii or osata.
Spun Sep 11.

The color and ornamentation of 25 d. has a superficial
resemblance to Alypia and
Eugenia.
"Arctic" - Scepsis fulvicollis

Found resting on grass at Kittiwake Point, Nun.

having hibernated April 26, 1886.

Body black with with sub-dorsal and sub-stigmatic creamy white narrow bands. The culus ending on seg 18. A median dorsal row of nine pairs of jet-black tufts from seg 4 to 11 inclusive.

The sub-dorsal region is occupied by tufts of yellow hair with a few black ones mixed. Especially below next the stigmatic region which is clothed with jet-black tufts.

In posterior segments together with the sub-dorsal, are clothed with white tufts. The ninth and tenth are clothed partially so. Black band with white.

Head dull shining and is an anterior central black D. First and eye dull concluded.

Protocere black. Short L. 8 cm.

Easily mistaken for Halidactylus maculatus minus its pencil tuft, eat grass and spin many.
Argia definita


Out of eggs:

Dull straw color, a dorsal double row of tubercles which are blackish on 45-67 especially and slightly in 9 10 11. 2 sub. d. rows w. minute black pits at base of hairs. Beginning with a very prominent tubercle on upper side of Fig. 1. Hairs of above slightly tinged. Lateral and lower tubercles smaller being shorter white hairs.

5. d. and d. sc. 45-67 brown. Very long hairs (twice as long as close 4mm) balteates.

2.5 mm.
Scaphiumouched

— Larva on Hammandalis virginiaca. Jun 15-?

at Malapen Mass.

Color pale gamboge yellow running into more or less livid white between 10 segments. The first, and last two segments entirely livid white; legs & protopet livid. Stigmata white, black-ringed elliptical. A few very minute pontled hairs arising from faintly indicated (bramble) points. Head shining very slightly tinged and mottled with light brown. A singular looking saw-fly like larva. resting with its head bent from side to side as in Hydrina to which it is probably allied and curling up at head 30 mm. Only slightly large. Cocoon on surface of earth. Jun 24.
Recorded at 95° at 3 for stage. Lance B.

Acromyda

Near noctivagae larger. 14.7.8.11

1st stage. Segments broader dorsally a dirty shining medium brown. Egg 2 mm. yellowish lighter. A double dorsal row of large rounded head tubercles there on 25-69 dirty brown horned with dull white patches on either side. The segments little much smaller on 10 large dull and stiff hair. Lateral and ventral regions dirty white. The red dorsal region of the uncolored segments dirty yellow brown. Red dirty dull not a brilliant coloring. Proximal portion of 1st and yellowish lateral still shorter nearly straight to stipulator (bluish light purple). Hairs under brown rows flecked as white. Anal seg. dirty white with darker tubercles. 2.25 in. 

2nd stage, July 1.

The red brown stains duller and more extended laterally on all the segments. The light portion less marked and surrounded on by the red, dull on dorsal 18. The yellowish portion dirty yellowish, less well marked. Else much as before. Hairs shorter and stiffer in proportion. 2.5 in.

3rd stage July 4.

Color more suffused darker. Dorsal light patches on 10 ill defined. An ill defined lateral light streak.

Bristle. Black edged with a few lighter and more slender chains indistinguishable. A well defined but stippled orange yellow band slightly suffused post. and obliquely anteriorly. I well defined thorax (Herz.) orange yellow spots in d or nearly s-d. 10 tubercles or 11 prominent. Body dull black with tubercle prominent. Latex thin yellow by set. hub. in each seg.

Head indented 10.5. mm.

5th Stage. July (Soc. Am.)

All the tubercle narrowly winged with whitish and the blackish portions dotted and notched sharply with whitish. The lateral s. stigmata more heavy orange. Underside portion mottled w. yellowish dorsal pattern in 10 clearly defined orange. Head nearly black w. few motlings and his dunger light. Lophites

14 mm.


Sep

Intumiscion of fine light hairs on 5-9 divide the entire dorso and 5-5 of ventral in 3 of under quite abruptly from the sep. 2 post. & above in one the graduation is more gradual. The eyes ant. to there (5-9) have also an intumiscion of similar hairs which are smoky almost black. These hairs have a viscous look some not straight 2 rigid but tend to curl and are thickly set with ash ornamented projection almost rigid fit in bed.
The coloring is as in previous stage. The ground color a clean black. The libraborus not ringed. The lateral lines leaving the stigmata more distinct. Contracting white, not black. A few black hairs in seg. 2 much longer than the rest. Legs and proboscis black. Yellowish or more distinctly yellow.

Appendix and notings.

M. Lewis July 18th

N. antennae and post. dorsal tufts not defined by the color but fringe hairs. These latter all more or less brownish smoky blackish with less posteriorly (ant. 11). Body color less clean black. A suff. manifest dorsal velvety black band are varying much in distinctness and breadth. Extending anteriorly beyond 4/5. The two dorsal or sub. dorsal yellow to orange patches on 10 distinct; in some continued anteriorly on each segment by a yellowish orange shade gradually dissapearing anteriorly first beyond 7 in either. That sub stigmatal orange band varying in distinctness in not ant. 10 & 4. Stigmata clear contrasting white and nearly black. Shining: femo white, penis black (Inkles much lighter shining).

Orgyia definita Park.

Tufted as "lucerojana". The long periods lack
the posterior are sheathed with pale green colored hairs
hedge shaped dorsal tufts at 4°-7° near dorsal yellow
and their tubercles generally only the last middle ones,
sometimes all more or less merged with black. The wing
connection by a dorsal black band which runs post 15
posterior. Their wing often reduced to more coronal
posterior to last middle tufts. Often tufts pale whitish
or straw color. Dorsal band on 8-11 generally distinct
and sandy with dull red blotches upon convex. Often an admixed
element of "lucerojana" but often almost entirely suffused or
admixed w. straw yellow. Body straw yellow to pale
yellow with more or less distinct green s.d. at stigma and green
lines. Stigma in white black winged. Lower portion
right green to yellow green. Head in straw color.
Majors: July 20-20+ 65-165, 120 mm.
Macromelia

Larva is active and voracious. It is vermivorous.

Manodont - 1 st dent in w. larger head.

Abdomen reddish and dirty white. Th red is larger being concentrated in a s.d. fixed point, defined inf.

 Hentai 2 or 3 legs, almost wholly reddish in abdomen, levantly and ventr. Dirty white. Stigmata reddish well marked. After maturation, tubercle becoming short hairs. 2 to 3 mm. Stigmas somewhat larger rounded flat
greenish. Dried yellow brown with a small amount of darker points on either side, and 2 to 3 dark brownish.

Head almost chestnut brown slightly. Short ant. Cap slight.

papilla.
Dear [Name],

An interesting fact about the [object] is that it has a distinctive feature: the presence of a single sub-dorsal line which is yellow to green and clearly defined. This line runs from the head to near the end of the body, including the head and thorax. The edges are darker, while the rest of the body is lighter in color. This feature is particularly noticeable in the [object], where it appears to be more prominent and distinct.

The head has large eyes and a large proboscis. A small number of thin, slender tentacles are present near the [object], which are very effective in gathering food. These tentacles can be extended or retracted as needed. The [object] has a remarkable ability to change its color and shape in response to its environment.

The body of the [object] is relatively flexible, allowing it to move through water with ease. It has a long, slender shape that enables it to navigate through tight spaces and avoid predators. The body is covered in a sticky substance that helps it adhere to surfaces when necessary.

The [object] has a series of spines on its body, which are used for defense and as a means of marking its territory. These spines are strong and can pierce the flesh of larger creatures, deterring potential threats.

In conclusion, the [object] is a fascinating creature with many unique features that allow it to thrive in its environment. Its ability to adapt and respond to its surroundings makes it a valuable addition to the ecosystem. I look forward to learning more about this remarkable [object].

Sincerely,

[Your Name]
Redds on raspberry, Salmonia Newfoundland Aug. went into earth 1 Aug. 25

Dark green above light below somewhat variegated with light lines under glass. An indistinct narrow dorsal dark ring. On sides 4-10 inch. a dark salmon yellow a patch of dorsal patch the base posterior , toothed edgy butt. with purple, the patch on thin ill defined and mixed with that on 11 by a dorsal purplish line. Anal plate purplish. A stigmatal slender line edgy below is dark green and stains a mottled with purple on 1-3 and 9-10. Lees 2 nobly 8 a few reddish dots head green 8. 5 -approximation powdering reddish mottling in and post bands. slender. Few short-colorless hairs o. 5f.
On Abis at Salamina N. H. found the same at Mt. Desert Rock on under side of twigs.
Color: prince green, a heavy motion dorsal and sub-dorsal white clearly defined line. A heavy segmated band narrowed or broken between the segment forming a series of pointed ovals on each segment. The upper and rather smaller, half red purple; the lower white shading to yellow; an 1.4 fiber forming a tolerably distinct band. A rather heavy green yellow line at the base of each leg and prople. Upper portions reddish, head green. Stigmatic light brown directed by the red and white pedicels which are clearly defined from one another in a straight line. S. 30 mm 1' rather short. Slightly tapering. E. W. 34th Cen. 14.9.

Ex. and then accompanied by—
head white, white with black points; a light line from base, curves thus S. 28 mm all dies.

Salamina Aug. 16
Dead black, dorsal rufous orange comprising up to 30 a:2 a:2 in at most forming a continuous line on foot. 12 and a:1 at 29. After a short time, most patches forming a solid black post, each spiracles exc. 1 where it is a. 28 when it sick to nearly across the specimen. T, large 45 m. Slow tap at quit. Head 2 a:2 at 29. Coloration was preserved, bright when noted, 24.
4 found on spruce at Salinovka, U. S. Aug. 15 '35. Resting on upper and lower surface of twigs.

A very difficult barn to describe with definiteness. General color a musty brown varying to almost black and white in the younger ones. A median dorsal whitish line often bordered with rusty brown, expanded between eyes and contracted in their middle portion when it passes between long, weak, and tubercularly bearing black and brownish hairs of various tuft-like positions and external (3 divided) tufts or another row of larger tubercles along occurring on the last and 31st segments. The first mention of it being above except for a minute it tuberous on cox. position 231. The 31st tubercles of 1 . . . . . short stuff which black pencil tufts and those on 2 2 3 are longer than the others posterior ones except those on 4 and 11 which bear pencil tufts similar to 1 but longer (nearly twice 377) about 2 mm. Another row of tubercles just above

each spine also a smaller one just below and a smaller behind. 30 3 half enclosing the

spine also. Lastly one at base of each leg. The region about the tubercles is chitinous and the musty brown color gives the same color the same. Same in the tufts. Hairs you for one region was almost clear, the tip only being dark, the only being dark, 301 tubercular and a series ofsomewhat scattered, bearing colorless more or less just above each spine also surrounding ant eyes. Faint ant eyes. Venter anterior to it mounts and may. The creamy mark is above. Edges and blackish with white margin. The creamy colored one which at the end of the constriction. Broad ant. S. D. Intense region.

streak....as white brown with bluish T. anterior minute. Iago. The brown color. S. S. D. white

patch at base. Paras at brown

large. Fewer.
Plania moncotton f. nigricans


**First Stage.** Eleonat. light-green with conspicuous black at. tub. having each a single slightly curved blackish hair. The tub. are 2 s. s. in upper anterior. One sup. stig. conic, ups. and slightly ant. each st. spinach. One stig. medial post. each spin. One end. stig. conic below each sp. another post this and slightly inf. It. A small ant. at base of each leaf. one median central and 3 in posterior. Flies on 5-67 (cm 4). On 3 ant and lastly the one. somewhat modified. head from 2-4 mm. minute hairs.

**Second Stage.** As before. Hair and tubercle no longer a single s. s. and sup. stig. conic in - less slender.

Aug. 28

**Third Stage.** S. dorsal line widely double ant. Of 2 fine white stripes in the contained dorsal space. Supra stig. line distinct. All have wavy inner outline - tinge of yellowish - S.

**Fourth Stage.** As in 3 but with the two dorsal line clearly defined running ant. to inner s. ds. starting many together in s. 2. Other lines forming s. more clearly defined. wing outline the two dorsal and inner s. sometimes joined by fine lines. A few white marks and traced of a lines inner outer side and fat lines. Habitats different with tagged head and w. brown. 12 cm.
6 stage. Sep. 1. At a previous stop, the larvae had been distinguished from their somewhat less, broader, white, ringed L. 100.

6 stage. Sept. 5. - Malaise larvae.

Bright green. Four white, dorsal stripes of varying width. A pair at the end, one at each side, and another almost indistinguishable, divided by a pair of white, slightly suffused rings, continuous along the posterior border, lying either side. The larva has a green median dorsal region. A pair of white, clearly defined s.d. (Vth and Sth)

A pair of line tinged w. yellowish. A clearly defined stripe. Stipple and extending slightly beyond the last

Spinacles. Head green. Brownish yellow lips. Spinacles brown yellow oval black ringed. Setae as before

Minute, 0.5 white ringed. Remainder of body clear green, with a few whitepoints and short streaks. Slow 2 ap rapid. Ant. Head width 35 mm

Becoon of fine grayish brown silk very loosely spun in leaf. Pupa dorsal purple shape abdomen slender, the polished black brown wing case spindle 3. green.

Augustus (Eunice) astrasta


Egg color: yellow, shell yellowish orange. Shell thin, fragile, easily broken into ridges about 0.3 mm. An egg which also contains the normal num ridges.

First stage. Lived with green leaf. From intestinal contents: (1) many black radula-like spines, each a black cored hair. There are 2 ridges. The posterior slightly curving, (2) a curv. edge just above 2 ridges, (3) a stigmata just post. each spine, & a curv. ridges below each spine. On 2' & 3' there is a row of dots. The upper 2, medium dorsal running down and forward to the stigmata. With a large tubercle inside. Below and post. to this at base of each prodigii. The brownish moist plate contains four on either side, with a row of them running to base 1 prodigio from 1 post in conj. with the middle of them. Anti. spine curved and curv. the others here.

On 5' & 3' on either side. The median vertical line arranged in a the basal post and the outer lateral much the longest. On 4' are 2 rows to post 2 of 5. Prodigii light-brown yellowish - brown. Dorsal and post. rows with black dots, 3 or. few short hairs. Head lobes w. few black dots, many short hairs, two ant. pairs of legs not-functional. 2. 2nd stage. Color 1' brown, 2' dorsal & 3' white almost the same with an indistinct line just below it. A good number of lateral bands. Tuberc. white. Many red prod. Prod. 1' brown flecks. Prod. 2' & 3' yellowish. 3rd stage. 1' brownish. 2' brownish. 3' dark brown. N. T. white almost the same with an indistinct line just below it. A good number of lateral bands. Tuberc. white. Several red prod. Prod. 1' brown flecks. Prod. 2' & 3' yellowish.
4. Egg: 8-10 Sep 10. As before but more clearly marked.

5. Egg: Sep 18. Lateral band very broad clearly edged above w. pale yellow, the remainder white with 2 streaks and mottling. A central dorsal white streak interrupted, edged with chocolate brown. Dorsal portion almost salmon red, mottled with chocolate brown and white streaks and streaks. 2 Black dots on each eye.

6. Egg: Entirely white. Below this dorsal region up to the pale yellow edge. 2 lateral lines. The color is dark chocolate brown almost black above the spiracles, and white below. 3 definite pale brown, dash somewhat above each spiral extending ant. Spp. to a laterally distinct black dot.

7. Legs and prolegs dark brown the latter mottled. Head shining light brown mottled w. blackish a pair of longer median black ant. streaks curved slightly inwards.
Pistia Puntunii.

Color chart yellow-green. A moderately heavy green, yellow, cream, yellow, and black. 2 fine yellow bars on the side, 2 dorsal lines also creamy yellow with a greenish tinge. 2 dorsal lines more distant than the s.d. or than they are p. S. d. Space dull, outer s.d. and lat. = dors. and outer s.d. very narrow, whitish margins. Tubercles minute, black points. Minute hairs. Head and legs black points. Minute hairs. Elongate ed. flattened. Tip and. from about green. Elongate ed. flattened. Tip and. From about 8.

n. Soldan nod. de testamentum
Lania Rosini

Near summit of Mt. Washington on ground.
Arctic-like. Short and broad. Body black. Thickly
covered with smoky blond hairs mostly feathered. V-
latinal longest. A distinct red-dorsal line yellow
at base as an also most of the hair on 1st 3 segments
Latinal hair also slightly tinged at base. Yellow.
Head legs and prolegs black. Cocoon much like
Halictus maculatus found on balm rock. Eats Vaccini
sp. reluctantly. Identified from cocoon which leaves
no doubt of species.
Fenalia peca. 1850.

Egg prope. Large, greenish yellow, subellipsoidal, flattened at apex 1 x .6, mm. Marked by parallel ridges radiating from the slightly flattened apex when they are indefinitely, becoming marked on labrum at 4 mm, pterygale .08 mm apart. connect transversely by fine ridges about .01 mm apart.

Eggs hatched April 27-30.

1st Stage. Lancea middling blunt, greenish yellow without apparent man rings. Head with pale brown.

2nd Stage. Many 4 months.

Wight 10 mm.
3\textsuperscript{rd} Stage 2\textsuperscript{nd} molt. -pand - May 7-9.

Bright darker green. The bands clearly defined.
The stipulate hairs cream white broadly edged
above dirty greenish white. All bands from
hind tarsi. Length: " 15 mm

4\textsuperscript{th} Stage 3\textsuperscript{rd} molt -pand - May 11 -

As before but more distinct stipulate and strongly bounded
supr. tarsi and tarsi. prob. middle. 20 mm

5\textsuperscript{th} Stage 30 mm x 4 mm.

Marked: deeply clear white. Abdom. 2. spikes.
Dors. constructed on broken intestine directly. Stip.
and heavy yellow. Broken intensely. Woody edged
above with cream on which usually runs down in a
point above the spines in 11 when spines is
the expansion line. A sub stipulate 4 and 12
and consisting of a white spot on lateral. (Clean
of legs and prob.) Color clear dark green closer
shin, hind abdomen. Length 25 mm. prob. middle.

Cotton bollworm pupa in 8 days. mm March 12/29.
Cerumen

[Handwritten text that is not legible due to damage and wear]
Young lemon, rich purple, dark green to
8.0 cm and later band each summer has a 3 cm
with yellow spot. Fall and brown large spring black-
purple. Vertical surface; light. Length 5-5.5 cm with
tails 9-10 mm.

2' stage. First month, Aug. 16.
Read in a warm room -

Copepandolin cinereus

Egg laid Apr. 16, sp. Hatched Apr. 17.
Pinkish in flesh colored becoming darker. 95% mm in
long. Sten subhemispheric and concave wedge, white fine
articulation, Ridge sub Columbus - 20 - 22 at periphery. Virtu
main ones originating under - near middle of second
among others from there on indefinitely known
form. Fed on hosts of American eating and the second
making a little case.

1st Stage

White, dirty yellowish sometimes with traces of reddish. Head shiny
black, subcutis, large pointed plate black also smaller medium
small plate black. Legs of normal number (6 pairs) protopod
black. Lemes looks like a small toothed and has same bend
of striking in a few days more associated with its feeding habit.

2nd Stage (movable Apr. 2' one)

White, head white colored as grayish. Stage, black spin
white yellowish, head black.

3rd Stage Apr. 25.

Dull reddish irregularly mottled with whitish. Gray or gray
head shiny light brown. Mouth black, a slightly curved, faintly ind.
Ground color dull red, conspicuously mottled with white.

Head light shining brown, orbital plate with a T-shaped yellowish white mark. The short short vertical was part toward the hind and sometimes separated from the brown.

So that there appear to be two marks, a portion long transverse one and a smaller anterior opposite it, middle just behind the head. Anal plate edged is yellowish white (cream color posteriorly). Sides black with central white (6-2 ranged) is, whitish legs underneath the chest. Whips on anterior parts of body when distal, still lives in cane like Xylopygaes and resembles Siphylus Scopolois group.

5th stage 4= moon. May 31.
individuals appearing almost wholly white. Thoracic shield as before. The white patches larger more contrasted, and often outlining posteriorly so as to divide the third completed by a fine indistinct line below, black with lighter center. Ears as before. Spring crown in miniature habitus. Shorter black hairs.

Eulycnemus castaneus. N. of May 5

Many of these larvae were killed in the stiff sleep by Sporodochia candida = S. globif. Esp.

The larvae when under still holds in case between his leaves and resembles Hyglaea and Hyglaeae closely. Orig. in Aegypt. cocoons only found forming in very dry situations.

1. Apr. 17. 2, Apr. 21
2. " 25
3. " 27
4. " 28
5. May 1 Malate
5. " 20 Pupa
12 Pupa

Paprus, Nascus
Barbae, Salix
Conus
Batula
Rubus
Pruurus
Porcarius
Cyanus
Rose
Paprus
Planta
gus
Cynus

The same larvae found in abundance on oaks in vicinity of Shakwa Nump. in various stages.
Paragraphe

Found in Albin's sand dunes, Woodbridge, June 27th.

Body mottled greenish gray, a black supr. stripe band, and a more or less broken dorsal black band more conspicuous in the last 3 segments. Stipulate yellow. Prolegs aline brown.

Head shining, dull brownish.

On Segm. 1, a broad, long lift of clavate black scale hairs and a similar dorsal lift on seg. 10, grey smoky at base. Also similar lateral lift on 12.

A substigmatal and subcentral veil of greyish lift.

Each substigmatal lift with a central band.

Each supr. stripe mottled.

Clavate scale hair. A sub dorsal row of lifts on segment 4-7 fused with roas to form a large clavate clavate white scale hair, esp. cut edges on segs. 2-3 and 8-10. In s.d. scale lifts are largely comprised of the same clean white scale hairs with a few projecting quinquhairs. On segments 9-10 a single canal in the dorsal cylindrical body.
which is prolonged indefinitely elsewhere.
Venatic

Melt found April 13 resting on maple trunk. Confined within various fungi plant among N. huckle laid about 40 eggs April 15-17.

Egg prop. Large, greenish yellow sub-convex planar flattened at apex 1 x 6 mm. Marked by parallel ridge radiating from N. flattened apex when they arise indefinitely becoming branched or lobed with fine and ultimately .020 mm apart. Connects branches by fine ridge about .010 mm apart.

Eggs hatched April 27 - 30

1st Stage. Larva moderately stout greenish yellow without markings. Head pale brownish with black ocelli. Siphonal small. Apically covered by short strong hairs. Hunched by the enlargement of
Marasmodes ventilator

Eggs on unnae (Phyg tophiurea glabra)

June 5. Green color worn changing to

reddish by the appearance of numerous
reddish mottings. Halters, slightly pear-

shaped, with a short apical truncate

prominence from the base of which radiate

punctate ridges which are interrupted

randomly by finer ridges. Base large

flat, adhering continuously. Size large

in proportion to that of imagie. Transverse
diameter being about .7 mm.

Hatched June 10.

Young Larva

Light green to yellowish green with

black zigzag rows. Ventral row forming black

tip, rows. Head jet black. Eyes and

mouth blackish at base. Mandible plat-fig.

Jet black. Halters absent. 3 mm. Five pairs thin

legs.

Second Stage June 15.

Light yellowish transparent and showing green

of intestinal contents. No sub dorsal rows

of black spots containing the vitellaria. Halters

longer than ventral. A fine light line
pans. Utus. The cephalothorax and Cephalothorax were. Head was yellow. Body was green.

First Stage June 20.

Beech white with a pinkish appearance. No black spots. No black spots. No black spots. No

Second Stage June 24.

Males: uniform with a white appearance. Spots larger, round. Felters were not formed. Head was pink. Protuberance and antennae of 1.6 yellow. Whitish portions taken by green vegetation. L. 18 mm.

Fifth Stage June 29. Males: dense.

Spots much larger and reduced to a sub-dorsal row. One spot on each segment. The
antennae twice as long as to posterior and a stigmatal row, n. spots being round and including the stigmatic. Anal plate and postanal plate of aq. 1, black. N. bands diminishing externally and anteriorly in two black dots. A black dot at the base of lip (except last pair) and two at base of probosc. A large black rectangular patch on mand. An indistinct green whitish stigmatal line. Maturity and change its color July 3, spinning a blackish cocoon in moss July 5.

This pretty larva is very distinctly marked and its conspicuousness may account for some color for this variety of the image which appears in May and June.

Macromusリスト's 1812.
...