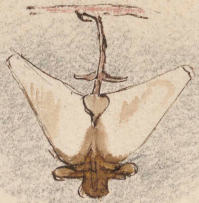


Sketch book of W. A. Johnson (1816-80), given by his son, Dr. A. J. Johnson to Harvey Cushing & by him to the Oak Library. W. A. J. 24 leaves of colored sketches 1 May, 1865 - 19 Feb., 1869.

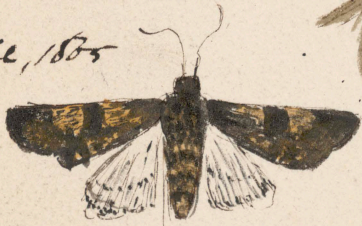
Worcester May 1/65

Dicentra
(Ditchmans)
branches.



Pistillum
mag^d one half-
larger.

April, 1865



In the woods on
Chapin creek,
in piece of wood on
side no. 197.

9/8/65



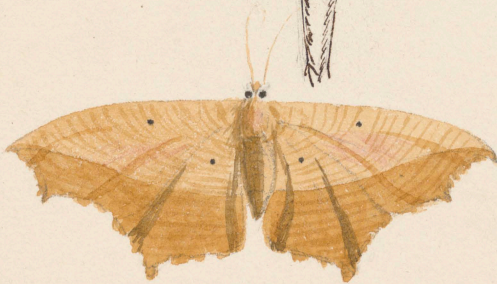
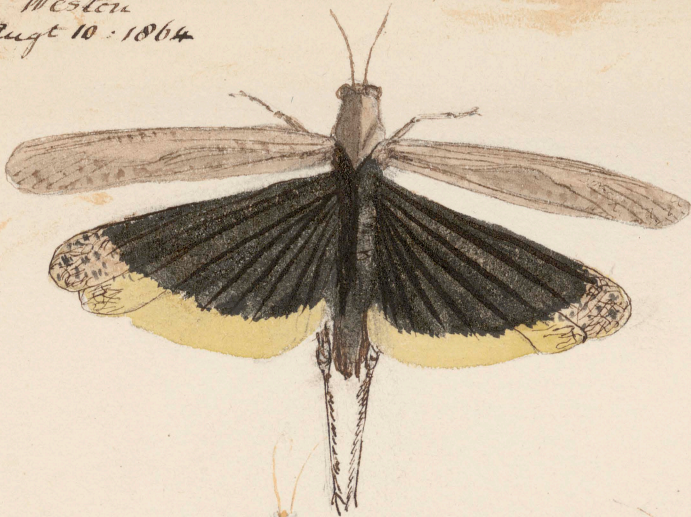
In the very open fields,
meadows, flies 15 or 20 ft
higher again. Not much
seen. Took antennae & long
legs. Antennae as if were
cut blunt off.

Drastera crechitica

Acer saccharinum
Sugar Maple
May 16: 1865
Worcester



Wester
Augt 10. 1864



Hydracin nictans

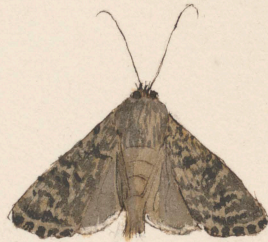
Aug^t 12:



+



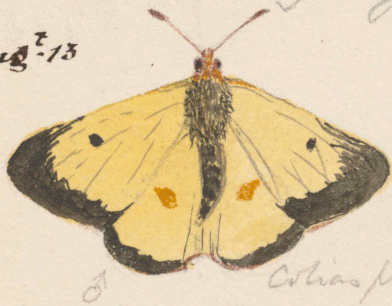
Agrotis jaculifera



Agrotis tritici?



Aug^t 13



♂

Cotias philodice



♀



Aug^t 20



on the Pines



front legs yellowish
white.

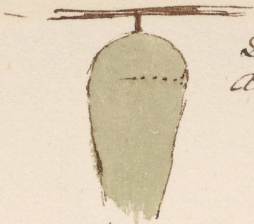


+

Very numerous, have a kind
of spot & difficult to represent
intended for the same as the other ♀.

Weston,
Aug. 30: 1864

on the Hops



*Daucis
Archippus.*



Clytus flexuosus
Sep. 20: 1864.



on the Golden Rod.
Lycena phleas



on apple
Cocoon of the bark
sheep



Phasma

Aug^r 22: 1864

light brown with fine golden spot.
on all the wings (very long legs)



Legs too red
should be
yellow.
probably a male

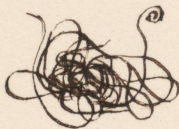


Arctia virgo?
or *Sandersii*

Hann 345



A B



A the tail. B. head magnified.

a small brown worm,
when extended becomes long, com-
mon in pools of still water. It rolls
itself at times like a little roll of
waste thread. 2 in a saucer, roll up
into a close ball. Snip^d off an 1/8 of
an inch of the head & tail, 24 hours
afterwards the worm seemed to be feed-
ing like the other, but they did not
coil up together, stayed separate, &
the cut one is coiled much closer than
the other.



rather too large
it spreads 3 1/2 inches.



Katydid.
Aug^r 28

Wesley, 4/4/65.

Very delicate shades of brown
always difficult to imitate.
Size of life. Left foot too large.
Canadian Robin.

Acorns
of $\frac{1}{2}$
mag. with
finch's obj.



Weston 15/4/65.



"Acer rubrum"
"Red or summit Maple"
19/4/65.

its earliest stage

black
gold dots



*Calosoma
calidum*

April 27.
1865.



Deep
blue black
found
in old tobacco
leaves -

Meloe angusticollis



Black & copper
Copper underneath.
Elector.

*Chalcophora
virginica*

Weston 20/3/65.
Grasshird.



Parasite of above. mag² with 1 inch
objective.



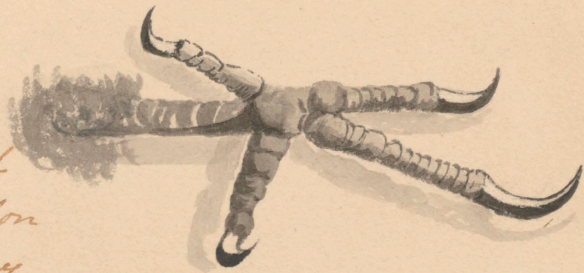
Parasite of above
of the Tom-tit or Chick-a-dee

a species of
Liotheum See
Macro. Dic pg 397. Editio 56.



Cock of the woods. —
— size of life 1841

This wood pecker
has the power of protruding
its tongue 3 inches beyond
the extremity of the beak, and on
the end of the tongue is a horny
substance toothed or barbed
effectually to hold captives away
its whole time. —



Neotoma Chelifer (Canceroides?)

Acari, caught on an
Elator occulatus, Dec 1: 1865

With 1 in objective &
camera lucida.



With one inch objective
& tinted glass, reversing the object.



They run very fast & hold on under the
edges of the Elytra, strong teeth, large claws,
double hooklets on the feet. 8 feet dark
red brown colour.



form of
a sort of Proleg



Inst. size.



Proleg?

with $\frac{1}{4}$ inch

119

18/3/55.

a podura or springtail.
in the Humber during a
freshet. it has a curious
sort of proleg. Magnified
with an inch objective.

see notes page 50.

Plytron (marked & shaped)
all over



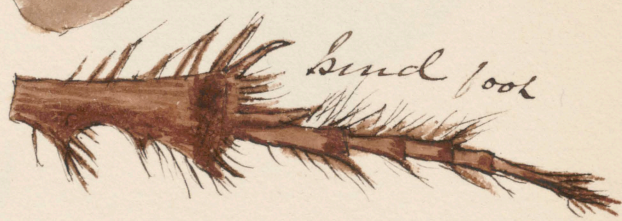
Inat size



Markings of *Plytron*
Mag. 2 with 1/4 in. ab.



Front foot



Hind foot



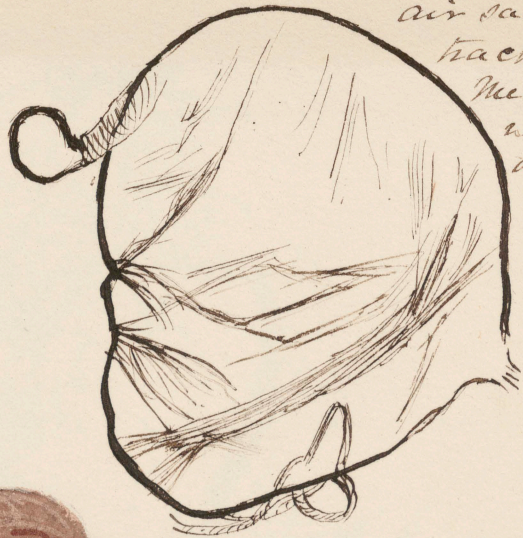
Antenna

Plytron 30/3/65.
Magnified with thick obj.
except no 1.
See notes page 35.

Weston 12/4/65.



out of maple. all active borer with very cylindrical body 12 compartments & 2 very strong & pointed teeth ~~fig~~ the front of the head is dected.



air sac in trachea of Meloth Val. with 1 inch objectum



with 1 inch obj.

Acarina Beetle.



with 2 inch obj.

15/4/65
Weston.



Aphodius pumilatorum

Beetles about three the size of life.



A. granarius

Acarus of Musk Rat with 1 in obj.



acaru. mag^d with 1 inch objectum from Beetle



Weston
6/4/65
See notes pg 36

tail

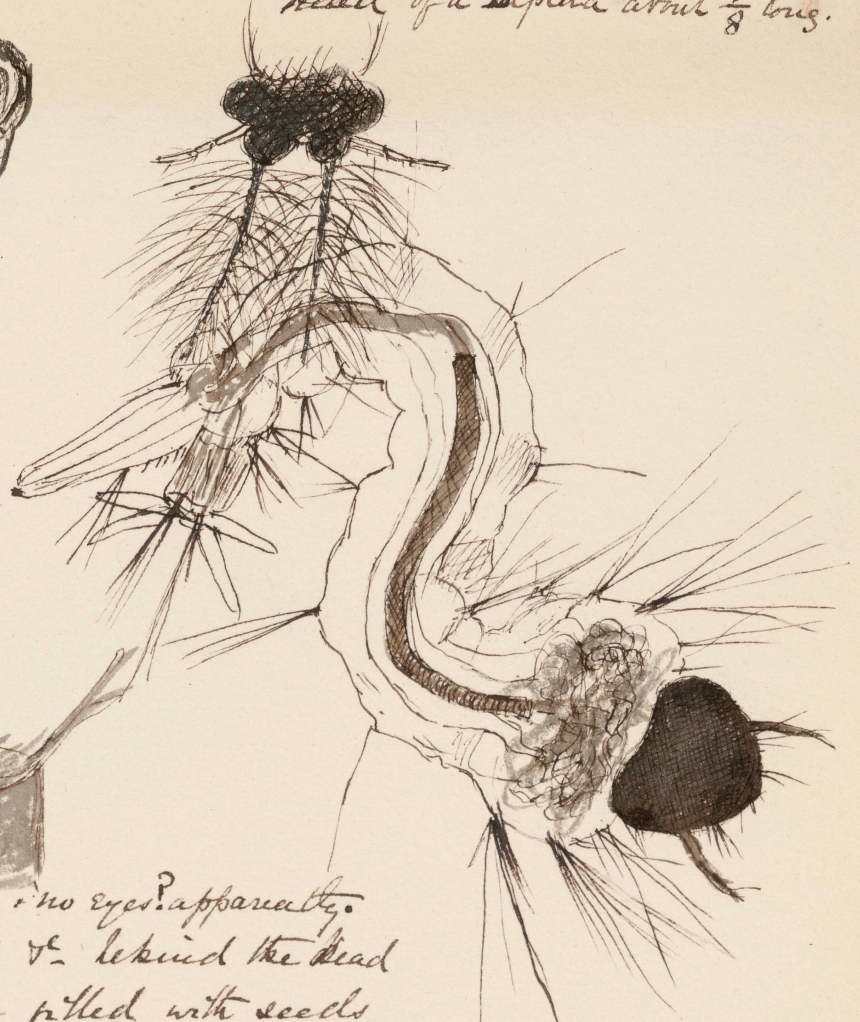


balancers



Anal canal exerted.

head of a Diptera about $\frac{1}{8}$ long.



Head very dark & no eyes? apparently.
smaller intestines & behind the head
Larger intestine filled with seeds
or spores of algae. Large trachea on each side of the intestine
terminating at the tail, with very thick bristles at the end of the body.
Trachea coloured red.

Mag. with
1 inch obj.

Muscles





originator of
fly in the future
no hairs on
abdomen



25/7/64

Rev. C. Belkame showed me
these in straws of barley. The barley
is pierced & twisted at the 2nd or 3rd
joint. The insect is only about the $\frac{1}{16}$
of an inch or less. — Having 8 spiracles
on each side. The mouth appears to
be situated on the under side, with
two very sharp pointed teeth. No
appearance of legs or feet. Body thick with
batty matter except at the two ends
colour whitish. tail end simply
rounded. The barley came
from Ginnerby. C.C.

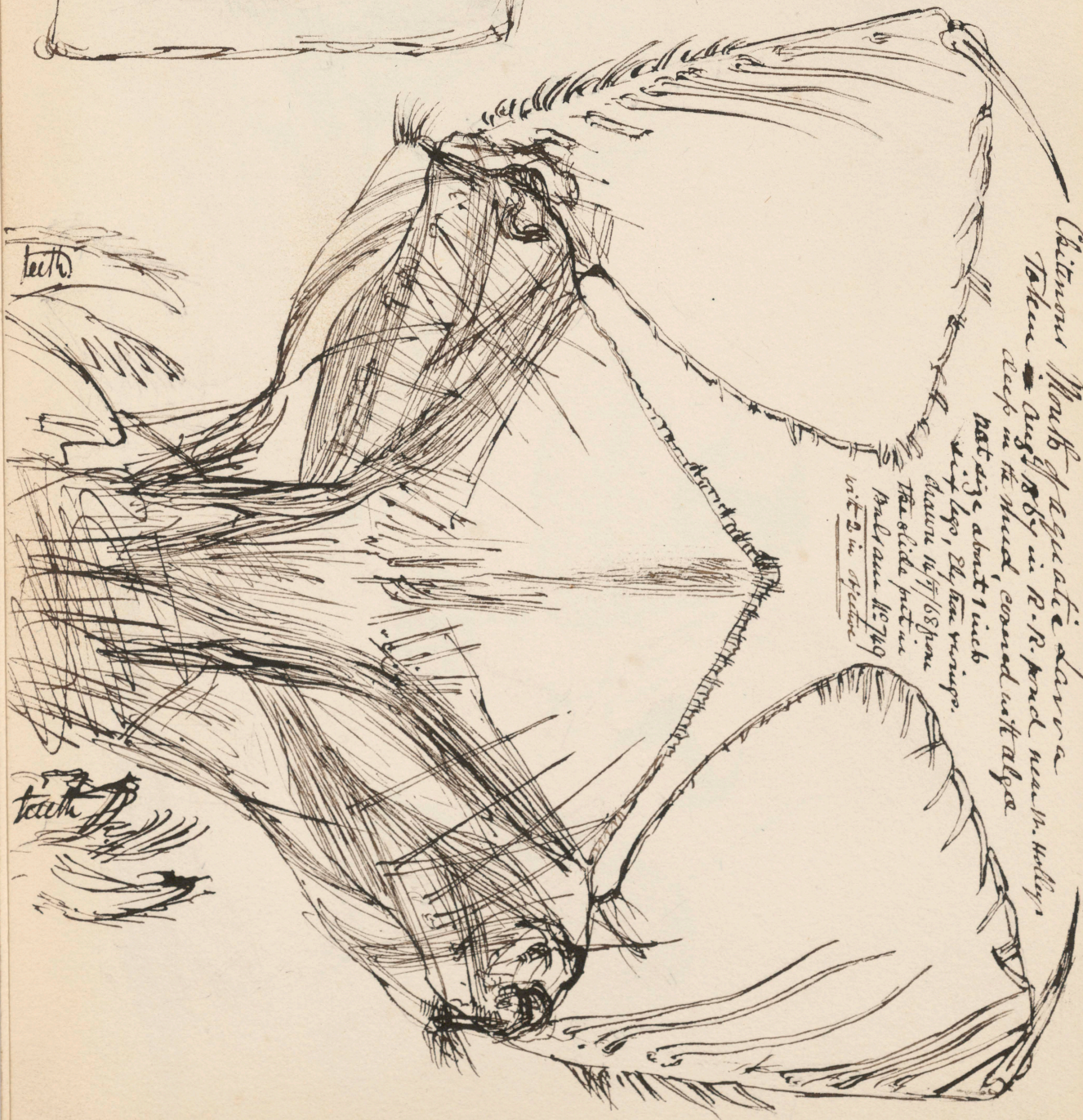




Eud of *Obolomer*.



Teeth
autumn



teeth

teeth

Chironomus Mouth of aquatic larvae
 Taken Aug 21 1884 in R.R. pond near N. Valley
 rears in the mud, covered with algae
 not dry, about 1 inch
 w/ legs, 24 fine wings.
 Museum 147/1884
 The slide put in
 Malvern 10/2/19
 with 2 in spirit

Weslow.
27/3/65.
See notes pg. 23.



White Pine



47 holes.

on willow twigs.

Willow with Larva



I nat. size.
larva of
willow.



Head.

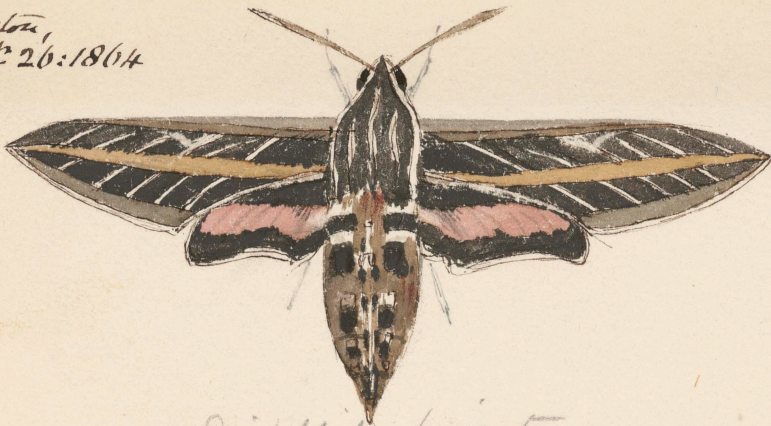


head tooth, resembles
a cross. may with 1 inch.



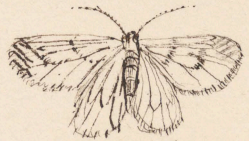
Magnified with 1/4 inch
to show the mouth.

Weston,
Sep^r 26: 1864



Dilephila lineata

Nov^r - 2: 1864



a very delicate fragile
silvery white or yellowish
moth, flying upwards slowly.
(The right wings correct)

Oct^r - 8: 1864



①
Nat size.



Parasite of Rat

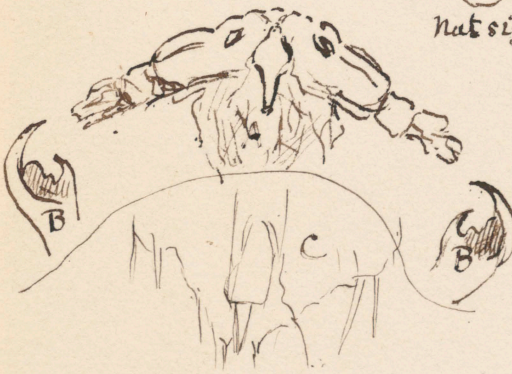
27/2/65.

Magnified with 2 1/2" obj.



Feb^r 25: 1865
on the S. side
of a fence -

areta Isabella (or *Isabella*)
Harris pp. 355. (Singer Moth)

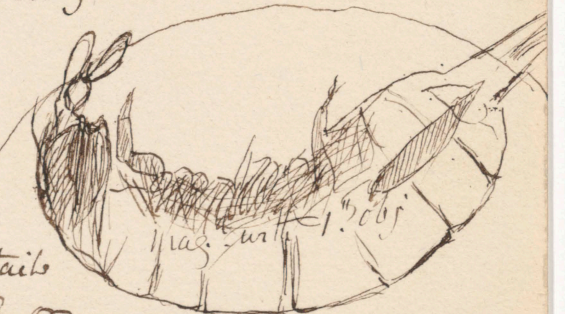


A Head
B. Claws

C. Sting or piercer

} with 1/4"
Objective.

① Nat size.



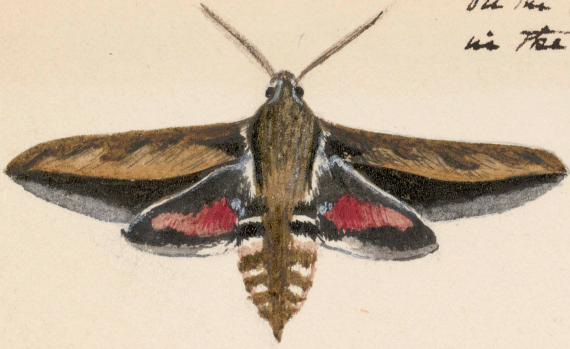
Spring tails
Podura ? or
Snow fleas,

27/2/65. made their appear.
ance on the 18th Feb^r.



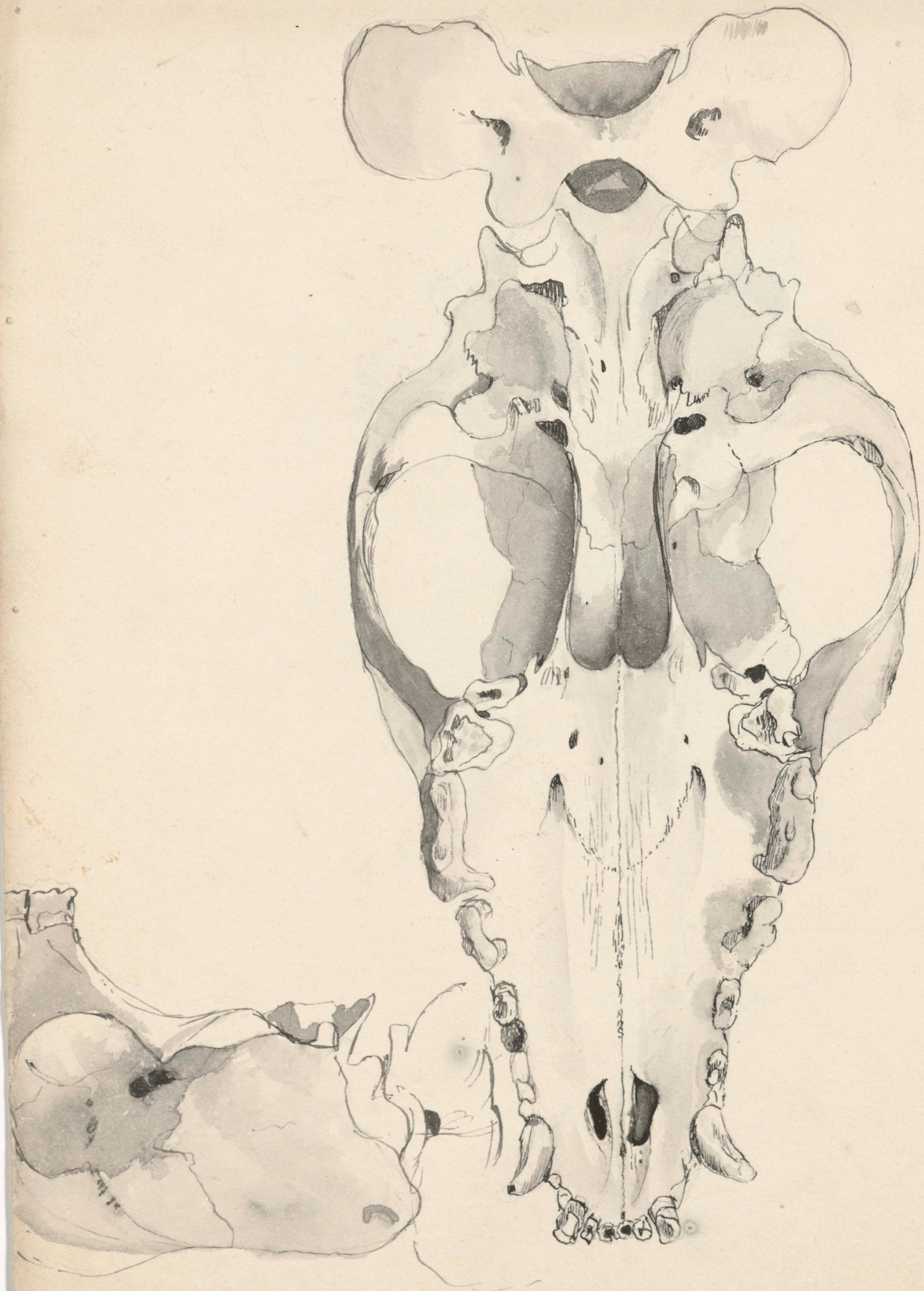
Magnified with 2 1/2" obj.

Wiston, May 3, 1865
On the *Phlox subulata*
in the dusk of the evening.



Chrysalis of the *Polyphemus*
made of leaves drawn together.





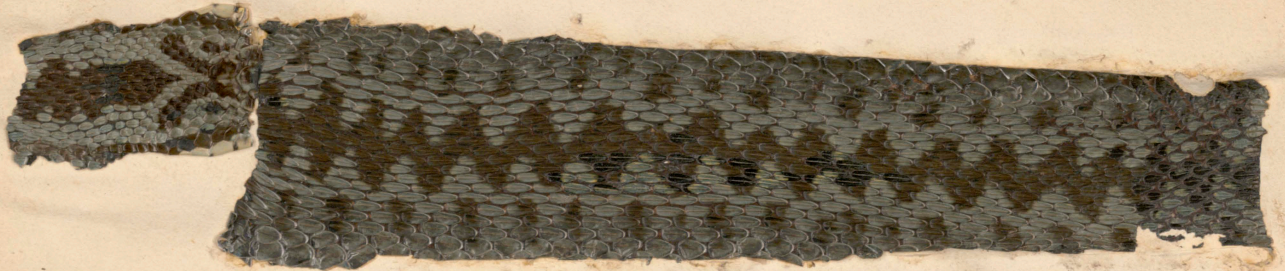






cut the skin off
opened to show
the glands, duct
and fangs.

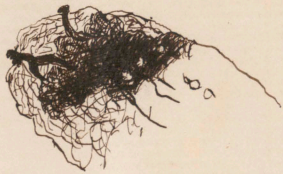
Common Adder



[Faint, illegible signature or text]

1) one insect objec.²
2)

1)



2)



greatly
magnified.

① Nat. size

A kind of worm living inside
cabbage leaves July 4: 1883. It cuts la-
terally with the saw, feeds with the
mouth above it. Vis filled with chlorophyl
the light green indicates stomach & in-
testines. The remainder is muscle

Wash. Feb. 19: 1869

Wasps nest.
Cells are lined & lined with
white. The nest brown, taken
from surface of wood,
found 7-



natural
size



about $\frac{1}{5}$
natural size

found hanging
in a tree, vent
in half. The entrance
is at the bottom.