

1924

July 15  
6.1 a.m.  
put off in  
Sulphur

Fish was uneventful passed, many of  
Woman Key; Rebecca Shoals lighthouse;  
Jat Jefferson now deserted and coal  
sheds, with twisted, crane, and unroofed  
buildings blown down in big hurricane  
that probably is just as it was in Civil  
war days.

70 feet  
100 h.p.  
16 gal.  
gas per  
min.

long Fish is about 60 <sup>nautical</sup> miles, launch  
goes about 4 1/2 to 10 knots 6.30 - 2.30 to  
island. Cost 39,000 to build, and 50-60,000 to  
duplicate today.

Allison  
has one  
that burns  
1 gal per  
min. =  
30 knot  
boat used:

Laboratory the large building for Lab purposes  
has one southernmost, has southern section forming  
that burns one long sleeping porch.  
Dr. Grove and I are in northern build.

to collect  
Fish for  
Sta. We  
had been  
lead to  
expect that  
lot of "Gudger"  
Science would  
be carried on there [at Sulphur]

Bird Key. formerly Hospital Key, ded of  
and during yellow fever patients from  
Jat.

Ports were all broken and at time of yellow  
fever epidemic, by Prisoner doctor who was  
given charge.

Wednesday  
July 16

Trih to Fort Jefferson in the a.m.  
returned about 10:30. The grave got  
a little chromid under an ascidian  
and I found a few small spider  
crabs, *Mithrax* species

Wednesday  
~~Thursday~~  
July 16  
afternoon

July 16 - 1924 Bird Key Reef <sup>49</sup>

Bird key reef over end near Fort  
Jefferson except last bit a islet across  
five foot channel, and nearest the Fort.

Dr. Single secured one Portunus (Achelous)  
and one Petrolisthes sebae

Color notes made  
Crangon formosus  
Crangon armillatus  
" near armillatus  
Petrolisthes armatus  
Mithrax sculptus  
Mithrax pilosus  
Portunus sebae

Large female  
hatched eggs  
round in made  
when fingers close  
saved in picric  
like some of young  
which were observed  
morning of July 18  
(water had been changed  
night of 17th)

50

Thursday July 17, 1924

(1a)

Dredged with the Dohrn.

White Shoal #16

3 *Caprellids*

6 *Amphipods* 2 species

1 *Stenorhynchus*

1 Alnus-like

1 red speckled, but practically

white appearing as head

1 *Synalpheus* diff species from other later

this day

Bird New worms.

~~Sand~~ Key ? = 2nd haul of  
day

Thursday  
July 17.

All ~~coral~~ coral sand and  
Lithothamnium bottom  
except last haul which had  
mostly algae and finesand

At. 2.30

first haul most mucky all except last  
White shoal #15

Made

① slimy

several dredge  
hauls.

White shoal #16 <sup>7-8 fms.</sup> largest squilla  
scorlet <sup>margin</sup> day after collecting had  
7 died in bucket over night after  
squillas natural looking grayish white

② White shoal haul #17.

Synalpheus sp.

Bind key 7. Bms dredge 10 1/2 fms.

③ White Shoal 18

- 1 Gelia
- 4 Amphipods
- 4 Milneax 2 sp.
- 1 Aemus like
- 1 Cymothoa

④

White Shoal #19 1 Ebalia + 1 addomen of shrimp.

*[Faint, illegible handwriting]*

order of work thus ① ② ③ etc.

July 18 - 1924  
Friday

Bender caught out by mags  
mummert - Geocarcinus lateralis

and a hermit on rocks below  
lighthouse

went dredging  
with Taylor, made a haul before 12 o'clock and  
several after.

① East Key 100 yds and set grass on beach  
for amphipods

⑤ Sand Key #1 July 18, 1924  
50 yds west of Key in 25 feet water

1 Podochela riisei 2

Color the faintest kind of olive  
buff.

⑥ Sand Key on rocks just below water at high tide

9 Clibanarius tricolor

3. small Mithrax from filamentous  
marked with dirty white, + green alga.  
+ live green

July 18.-24  
Friday

Hexter spear half dozen lobsters  
near Bird Key this a.m.

Had set traps last night west of  
Soggerhead key & caught nothing.

(2) Middle Key shore collecting in  
3 ft of water. from algae

1 Palaeomon tenuicornis

1 Pitho, dirty white with <sup>color noted</sup> least  
touches of pea green on  
central anterior portion

1 tiny Mytilus with similar  
markings, like green however.

1 Chil. tricolor

1 little gray squilla.

(3) Middle Key #1

debris saved, bottom coral  
one bottle only, sponges alcyonaria  
coral saved



July 18-1924 (4) Middle Key Sta #2

Silts  
Hammer coral

1 Pithr

1 ~~Hammer~~ Silipia like with speckled bands

1 tiny mithrax

(Carpus + spots almost  
maroon, fingers +  
bands otherwise white  
as is carpus below

(7) Sand Key #2 changed to white  
Shoals #20 Bryozoa only saved  
mainly encrusting coral stalks



1924

all hauls made between 9+12 57 a.m.  
of about 15 mins duration

Saturday July 19. Hugged with John;  
made eight dredge hauls with "John"  
off Sugarhead Key. Using boat  
dredge.

White Shoal # 21.

Sets of sponges

some gorgonians

Halimeda in  
abundance

1 Stenorhynchus	} small	} clay color + dirty white
1 small octopus		
2 species <del>2</del> mithras	} small	} coral color.
4 xanthids		

~~1 Pith~~  
1 Pith

2 squilla

3 Petrolisphaera as in Haul 21

1 Venus like, Crimsun

1 tiny isopod mottled hazel + white

1 ochre yellow ostracod

1 large hermit.

1 little alpheid mottled with  
flesh color, eggs Panot green.

July 19. 1924

White Shoal # 22:

2 Hemus like, large one <sup>vermillion</sup> orange  
small <sup>vermillion</sup> rufous

1 synalpheus

1 Portunid, sand color + ~~to~~

1 Ebalia

1 Portunid, legs cross ~~to~~ banded  
with ferruginous1 } Bigornites <sup>Chelipedes salmon</sup>

type with chestnut fingers

otherwise coral sand color

cornea transparent with black

1 <sup>small</sup> hole in center

hermit like preceding only

carapace in white

2 Petrolisthes n. sp.?

Sta. 23. 1 Pilth with, like green  
markings

9 1/2 fms.

Xanthid + 1 milthos with

faint vinaceous-rufous markings

fingers dark brown umber  
with whitish apiceshands <sup>pink</sup> flesh on inside and between  
articles of fingers on outside

Rain out of cloud out of a clear sky at  
 very heavy + driving 5 pm.

---

Sta. #24 <sup>fair</sup> - 1 salmon tinged Pith  
 2 straw yellow squillas; + 1 buff.  
 Squilla largest is transparent vermilion  
 1 Hemus Pithy red x Carmine  
 1 much broken Synalpheus.  
 1 synalpheus + palaeomon pinkish  
 slightly pinkish only  
 color

collected white ... station  
 ...  
 ...

July 20 Out with Hohn  
 Sunday White Shoals Sta 29-37  
 depth 7-10 fms

5 miles south of  
 Loggerhead Key

Station 29-32 combined

1 coral sand, grey white chromia  
 with touch of pinaceous refour  
 on proximal upper half of ~~fingers~~  
 movable finger and few dots of same  
 color all across base of fixed finger

1 baby callappa, white

1 white Myzobia Alimentary tract  
 in abdomen looks salmon color  
 from above; eggs cadmium orange  
 with black ocelli

Hands above + movable finger joint

Waxel  
 Eye black

Jaws equal length, large one white alimentary  
 tract in carapace 2 ant. third of abdomen  
 lemon yellow legs, chelipeds 1+2nd antennae  
 with small widely spaced, ~~seen~~ <sup>not</sup> seen by naked  
 eye, crimson spots, about 2mm apart on  
 legs, more on palm, cluster <sup>on</sup> at base of  
 movable finger

Sta. 33 had large loggia head sponge  
Amphipods raised with manure + wine yeast 61  
and 1 Pisonia + one whitish cheliferous

July 20  
Sunday

Got with H. Japan made  
white shroals Sta's 29 - 37

Sta. 34 got lot of Synalpheus  
from sugarhead sponge 6 x 6 in dia.

2 small spider crabs, large  
vinacon buff and 1

small squilla coffee green.

1 inch maltrax madder brown  
1 amphipod.

Two juxtaposed horns spider

median raised areas pea greenish  
white, mostly white; lateral areas  
light rufous; all dorsal spines except  
for extreme white tip, pale rose red.

Legs faint vinaceous cinnamon, legs  
spindled pinkish vinaceous; basal  $\frac{2}{3}$   
of movable fingers bet peach blossom pink +  
rose red, distal  $\frac{1}{3}$  hazel with extreme  
tips white and narrow ~~for~~ band of white  
bet, red + haze

fixed finger basally  
like palm distal  $\frac{1}{3}$   
hazel extreme tip white (very)

Saw a water spout in afternoon

1/11

Stn. 1 brownish cross banded alpheid  
like other day.

Sta. 35 + 36 1 banded alpheid  
as above

Stns 35-36-37 combined

Sta. 37 nasty slimy haul.

1 Podochela

1 Petrolisthes on st. always done

up as result of dredge haul  
Same of Gammarus

Porcelain sand color

1 Stenorhynchus

4 long nosed spiders

1 lice green  
markings  
one ~~small~~ white  
the with

lateral touches of light ochraceous infuse



1924

- Sta 35-37 6 Gonodactylus all diff.
- 1 Plain
  - 1 almost plain
  - 1 sand grey with ~~with~~ white spots
  - 1 Orange ochraceous with white spots
  - 1 Mottled green
  - 1 Vinaceous cinnamon
  - 1 with coral red alimentary tract
  - 1 blue eyed hermit
  - 1 white hermit
  - 1 soft Hermit like orange vermillia.

What I have been ~~calling~~ calling  
 with after have been *Cymatobia*  
 with Chinese orange, flesh color or  
 ochraceous ~~refine~~ markings  
 but always very light, usually  
 they are sand colored, always  
 come up as 'halimed' bottoms.

1 dished out two horned spiders  
 = vermillion below, and legs  
 upper disk = burnt carmine  
 or wine purple

1924

V 11

July 20-24

35-37

Crypta Heterocrypta, dirty, china  
 white, like old coffee stained  
 cup. touched with pea green  
 on distal half of rostrum and a  
 little on either side and tops  
 of hands. Garpus on right side  
 touched with Bay on left with  
 fainter touch.

1 White Hermit

pearly, slightly opalescent white  
 cornea snowy white with tiny  
 red/orange vermillin flecks all  
 over



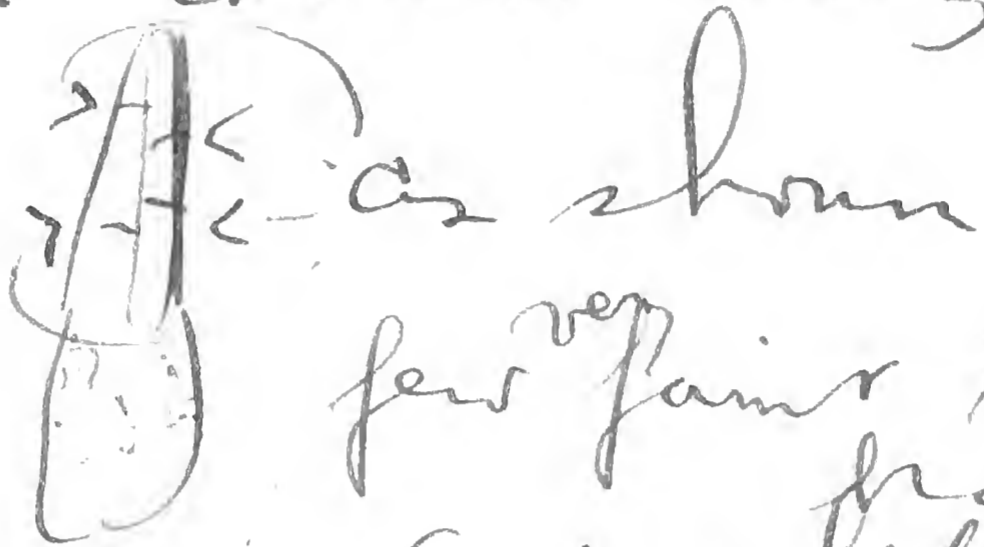
Ring of madder brown just above base of  
 cornea, touching points of show  
 and just about base of  
~~leg~~ legs most faintly striped  
 with broken bands of madder brown  
 + cerebral blue with white chromato-  
 phores against glass transparent  
 translucent ground. This is  
 what makes it look opalescent.  
 Canthace with few very faint  
 touches of the brown on antenna

1924

p. 11

65

parting rest clear with opaque  
white chamois tones  
only one cheliped to hand has  
fingers with thread thin transverse  
bands



As shown  
few <sup>very</sup> faint touches of the  
brown

Hermit came out of white Bulla  
like shell in 8.3  
10.1.

Pisidium ~~right~~ right arm cream color  
left hand palmer brown  
carpus with few touches of olive



cream touched with vinaceous buff  
darker mottlings of olive and  
dusky color

Seeds and under parts orange red  
eggs wine purple.

11-11

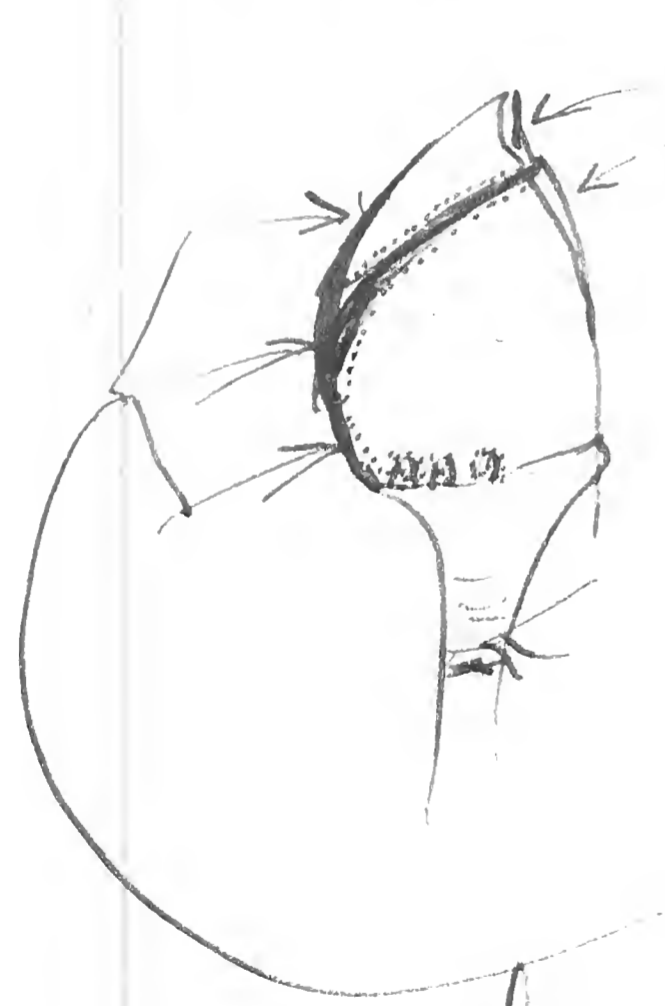
1924

July 21 Monday collected on reef, rather  
rocks, west of Sights House, between  
8.30 and 10.30. am.

Saw a Mithrax about 2 1/2 - 3 inches  
across carapace

Got several Chibanarius tricolor  
and one small Paguristes grayi <sup>known</sup>  
white speckled like one color noted a  
few days ago

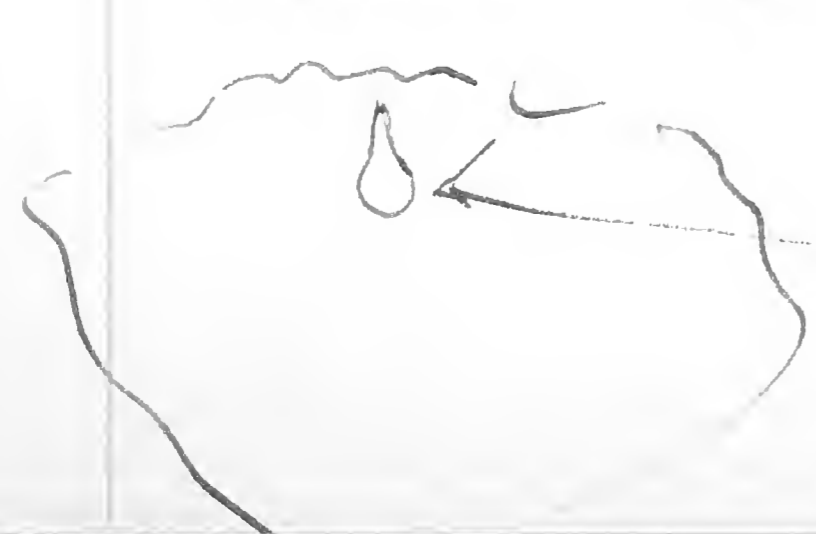
1 Xanthid  
several small Pachygrapsus



Cadmium orange  
Dotted lines and spots tawny  
ochraceous

Black line and peduncle  
Claws brown x Vandyke brown.

Xanthid sand white with few scattered  
black markings, rather irregular spots



with anterior median  
chestnut area.

= Microphrys bicornutus.

July 21

Decorata spiders greenish above  
and below 2 age green, lighter below  
Hands mottled ~~only~~ mottled with  
~~chocolate~~ chocolate on fingers and tending  
to olive on palm.

Mr. Grove + Bender brought in from Fort  
one large grapsus and two  
decorata spiders = largest + one  
with ascidian <sup>from</sup> above bottle.  
latter has purplish cast, dark <sup>maroon</sup>  
purple to capax + mottlings on hands.

---

high 21 Clear starlight at about ~~9~~ <sup>nine</sup> o'clock  
with lightning flashing in distance. noticed 2 or 3  
~~the~~ intermittent spots of greenish phosphorescence  
floating 10 or 20 yds off shore, one <sup>glowed</sup> flashed  
again some minutes later close to beach. I ran  
down and some minutes afterward, maybe 1/2 way, saw  
it glow in sand; very brightly a bluish light  
intensely strong from a little ostracod, size of half  
a grain of wheat. Sifted long enough to show  
evadne, came to but half way back, <sup>in bottle</sup> it lit again  
in bottle; in alcohol for few minutes.

Notes

Mithrax everywhere rocks & reef.  
 Cymatopoda & small Xanthids in dredge hauls  
 Pachygrapsus in rock crevices, on piles  
 ? on reefs covered at high water  
 Grapsus grapsus runs over brick walls of  
 fort, as does ~~Sidgia~~ Sidgia.

July 22, Tuesday, At six Hr. Sargely woke  
 me up. Rowed out and saw Pabolo  
 swarms, sometimes as many as  
 6 worms to a sq. foot, more often  
 worms were a foot or two apart.  
 Large grey ones with distended after  
 bodies females, coral <sup>or salmon?</sup> red ones in  
 many cases as large as females = males  
 Performed spiral wriggling, body was  
 smoke grey in case of females; eggs  
 shed in water of appreciable size  
 looked on though one had head cast  
 coral sand in water. The part of  
~~the~~ body burnt amber, or as light as  
 drab

Dayhade combz water  
+ sand off eye cloth  
with palhet maxillated



July 22 Sunday dredged with Johan Dr. Smith went along had very good luck with net superimposed on boat dredge.

Made Stas. 38 - 44 inclusive <sup>check</sup> some mistake but time <sup>of</sup> haul <sup>is</sup> <sup>OK</sup>

Sta 38 Steamed due south from southern channel buoy (25 mins = 4-5 miles) dredge in 40 fms. No. 2.

Bottom goes about 9 miles per hr.

Udotea, and sand bottom 15 min. tow.

Sta. 39 same bottom. 15 min. haul. ~~10.20 am.~~ 18

Sta. 40 20 fms. at 10.20 am. 15 min haul ~~15 min haul~~

7 miles south,

1924

2

20 min  
2 milesSta. 41

Steamed from last haul. 10.25 am. to 10.45  
 rounded = 40 fms., 11. am. = 40 fms. 11.18 a.m. = 60  
 fms, 11.36 = 75 fms. at 12.30 were  
 washing through gray ooze,  
 Headed north at 12.30 p.m.  
41 had at least 5 sp. Pteropods.

15 miles  
south  
of bay

Sta 42 @ 12.55 p.m. had same ooze lot as 41.  
 rounded at end of haul. 50 fms.

10 miles  
south

Sta. 43 @ 1.30 p.m. soft white sand. 45 fms  
 considerable sponges + bryozoa, few algae

Sta. 44 @ 2. p.m. 15 min tow, net on deck at 2.27 p.m.  
 18 fms Spongy belt, coarse sand.

Passed bay homeward bound @ 3.15 p.m.

Off end of island @ 3.40.

Figure that S. 44 was about 7 miles due south  
 of bay.

6 miles  
south

1924

73

July 23 Wednesday dredged with Hohmann again  
made Stew's 45 - 51 inclusive

Logger head Buoy #10  
Sta. 45; 8.40 a.m. passed western buoy  
net over at 8.45 opposite buoy, lost gear  
heading west sounded at 9.25, 19 fms.

shells  
in net

3 1/2 mile haul at 9.30 fine grey sand.  
west of No. 10 buoy net badly torn. Caulerpa + sand  
turned south. few starfish.  
fine broken shells.  
10.8 sounded in 20 fms

Sta 46, coarse sand, few algae  
1 alcyonarian, 1 Portunid under way after  
haul @ 10.30  
3 miles S.W. of No. 10 buoy.

Sta 47. 10.45 = 30 fms. 11.00 dredge on deck  
dark black + grey coarse coral sand.  
about 11 miles S.W. of "Loggerhead" No. 10  
buoy.

Sta. 48 40 fms. @ 11.20.  
about 10 miles south of No. 10 Buoy fine grey, soft muddy sand  
= grey orange some sand.

12.20 head East.

Sounded at 1.00 p.m. 30 fms.  
Loggerhead light due north. about 9 miles south of No. 2 buoy.  
Sta 49 net in at 1.25.  
one coral head 18 x 12 x 6 inches  
some algae.

Last Sta. Pohn, Monday July 23.

Sta. 50 net up at 159

Dictyonys + Zonaria. clean haul  
except for algae.

about 10 miles S. of No. 2 buoy.

about 45 fms.

*Squilla*

---

*Squilla* digs by rapid motion of ambulatoria  
ducks head, and puts eyes together

1924

75

July 24, Thursday dredged with Vellela  
along banks and shoals west side  
of island = Loggerhead Key 30+<sup>feet</sup>/<sub>fms</sub>

Loggerhead Sta. 15, 16, 17 combined as about 30 feet  
water.

Living in  
shaded holes  
in coral

Two gobies tail fan and integument  
white (pearl or china); hairs fringing  
tail fan and across abdomen  
straw yellow. Abdominal contents  
of larger specimen flame scarlet, smaller  
thinner one colorless.

Bands touched with salmon color  
Stomach forms block of purple =



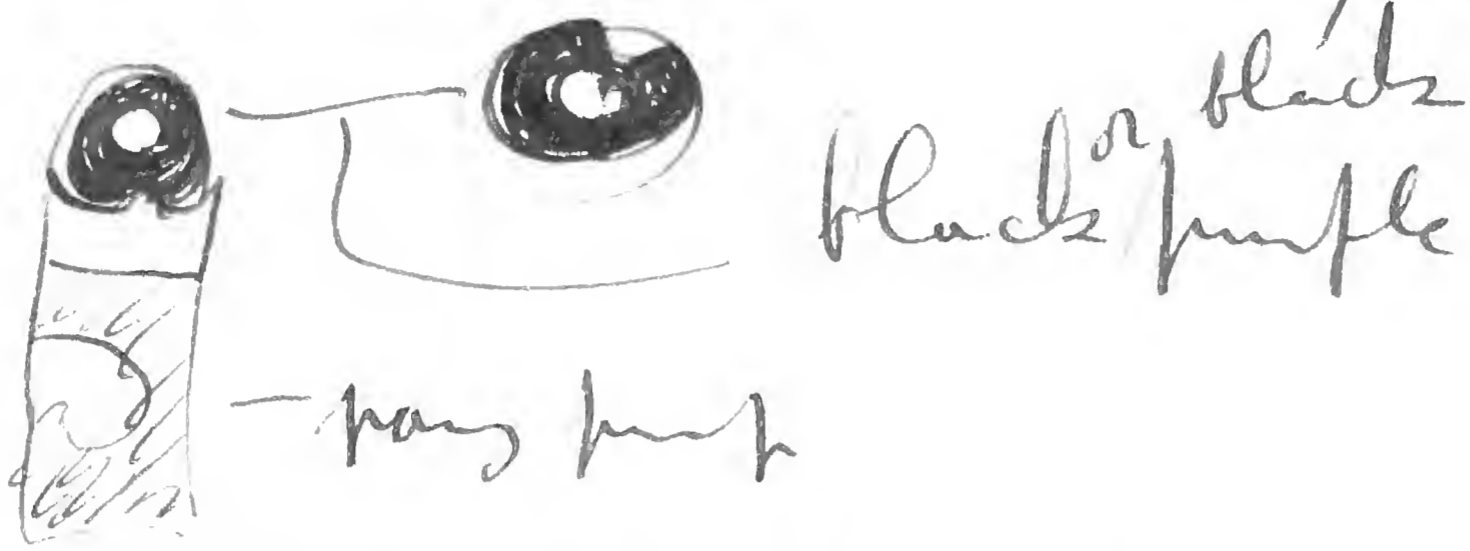
slate grey x Indian purple  
spotch in thinner smaller  
specimen big really only noticeable  
at sides

Small Portunid, legs Paris blue speckled on a pale  
blue ground, tips and margins of  
dactyls Pomegranate purple, hinder or upper  
margin of ambulator brown (= brick red)  
Just two joints of paddles transparent with  
very few of the dark blue flecks. Middle 1/3 of carpal spine  
crimson; inside of fixed fingers bright pomegranate purple  
Meral spines on inner base ferruginous & madder brown

Back mottled  
Vinous cinnamon  
cream buff  
Vinous buff

Anterior

Smashed hermit Pansy purple



Legs purple, proximal ends white  
 + distal end of dactyl for anterior  
 portion of carapace purple + white



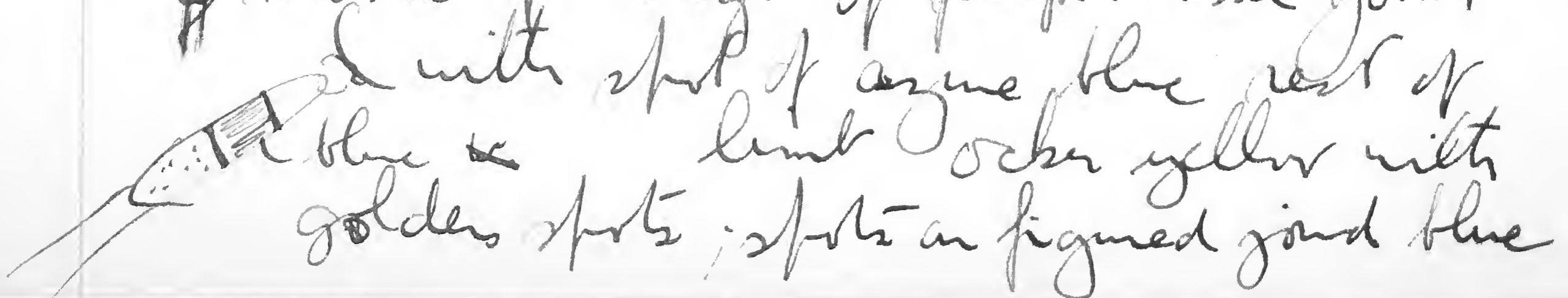
wh purple spinera china blue  
 rest. when yellow  
 dotted in diagram

Abdomen with medial stripe  
 of ~~brown~~ walnut brown and  
 lateral stripe  $\frac{R}{B} \frac{B}{R}$  of  
 granium red

Eggs scarlet.

Gnathodactylus burnt amber with  
 wood brown + near white markings

# <sup>near</sup> middle of length of ~~first~~ <sup>legs</sup> basal joint



ed with spot of azure blue rest of  
 limb ochre yellow with  
 goldens spots; spots on figured joint blue

1924 Thursday  
July 24 could.

Soggy head #15 @ 10. am.

Dictyota, 1 small blue legged Portunid  
Bottom around 40-50 feet.

#16 Bot @ 35 feet?

headed due south toward Soggyhead  
Sight.

#17 Bet. Sight house and end of id.  
enal head. section.

Soggy Head

Haul #18 near old wreck at 130  
on outer edge of Banks west of wreck  
algae Dictyota.

#19 =  $\frac{1}{2}$  way bet wreck & buoy  
got Dictyota with mid rift  
looks like kelp.

155  
4



1924

79

July 25, Friday bet 9 + 11.30 collected  
at Fort Jefferson  
from Halimeda pulled up inside <sup>moat</sup>  
got amphipods, few colonial sponges  
and a few tiny crabs. two isopods

from Hypnea one amphipod  
and two Palaemon species

} <sup>s beneath</sup>  
for Fort Jefferson landing pier

Cook's boy brought me a number of foraminifera  
and a few Palaemon tenuicornis ~~Red~~  
had shrimps for floating gulf weed.

July 26 Saturday. went on Bird Key Reef in afternoon tide coming in 2 feet over reef, not so good. Bender got 2 Xanthid I hadn't seen. I have an recalled middle section of Bird Key Reef and Bender on southern section, or Bird Key reef proper.

July 27 Sunday, Schaeffer + the two Taylors left this a.m. bag and luggage and few clothes.

East side

July 27, Sunday. I have collected off rocks before light from pier, got number of things. Alpheus makes sound on closing claw definitely, know this.

Saw tide just after lunch

last tiny pair of legs in Petrolisthes with brush goes over other legs, brushing them off or feeling them over, saw one of little whitish ones go over last 4th leg of left side + next to last, 3rd leg of ~~left~~ right side

Found best collecting by carry rocks as large as I could manage ashore + splitting them

in my mantle  
with my eyes  
where in  
the weeds on  
rocks + in holes

open found I believe all three, of speckled claw alpheids in one larger <sup>1 inch</sup> in <sup>dia</sup> hole at bottom. Others crawled out on sand when I dropped rock on beach.

Mr. Grave and Bender brought me a lot of weed from moat, <sup>I washed this</sup> that got a large Pentastemella quillu ciliata + good size

Septodius floridanus, lots of Thaer paschalis

Picked up as large pieces of coral rock & several and compacted sand heads as I could carry them up on beach

July 28 Monday, Went collecting among the rocks today, east side of island and point north of light house pier.

Op course is as small millstone in quantity come this morning saved for the second day on the same rock

Got several *Glyptothorax gonagra* by prying open <sup>deserted</sup> sea urchin holes, would hide way back in small holes so that you would wonder how they ever got in and out.

the *C. armillatus* are all times with *Crangon* not as high times

Got many Crangons out of holes in rocks and several (3) fishes again.

*Leptodius floridanus* were all quite small and only a few on this day + the preceding *Squilla* ~~was~~ as usual, the most common crustacean living in the holes.

On rocks + on reef get grey, and various shades of green, and brown.

The <sup>one</sup> red and bright yellow are belong to the dredge hauls.

Crangons are several to a large *Phole* hole 1 1/2 dia at bottom almost.



them from

Bender had few Mithrax + the (1 of the) one that was with the (1 of the) Mithrax

H. Singler + Bender collected on Bird Key Reef; got at least a dozen Leptodius floridanus all sizes and as many Microthys bicornutus decaratus which Bender is trying experiments on. and several smaller Mithrax spinosissimus small red + fuzzy + spiny.

These animals on the reef though I got crabs from places large both

Reef crabs seem much like rocky ledge crabs on Saggerhead but run larger in size; live in interstices between rocks rather than dependant on pholad + worm holes, or occasionally deserted sea urchin holes.

The little isopods are the hardiest creatures, come very alive in a dish of debris in which everything else had died + water had ~~been~~ by 10 o'clock the next morning <sup>odor</sup>

Got another Epialtus + two somewhat Epialtus-like with lipid carapace; more a hard por carapace than Epialtus. One of today's <sup>Epialtus</sup> collecting had red cream centymarkings on carapace. Also got another Portunid

1924

July 29

Tuesday

If my ident are right

---

*Portunus (Achelous) adnyi* is predominantly reddish
 

---



---

*Portunus ventralis* predominantly lice green.  
 = depressions
 

---

Changed alcohol in morning, didn't do much work as this is mail day, lobster put in a early appearance, about 1 two o'clock. with mail

---

Cymatias with sponges & also on coarse sandy bottom without any growth, except few fragments algae.

---

1924

85

July 30<sup>①</sup>, Wednesday. Went Seining in cove on  
South side of Song Key, made  
3 hauls 50 foot seine!  
get a 25 ft.  
6 feet deep

② { Guttered a few bunches of sea weed in  
about 4ft of water out near mouth  
of light. Generally clean sandy bottom  
with scattered tufts of weed.

③ { Occasional bunches of *Dalmanella*  
one bunch pulled up put in bucket.  
(about double hand full.)

④ { picked up 1/2 doz fair sized rocks  
in four feet of water on outskirts of  
Bull Key reef just where it runs  
into eel grass patch; on west side  
near Song Key.

⑤ Bener picked up two *Mithras pilosus*  
and 2 *Cyrtia retzyera*, and 2  
*Leptodius floridanus* from rock about  
Port Jefferson docks.

July 31 Thursday, morning cleaned up  
 previous days mess of collecting.

The Xanthids are very hardy. In a tub  
 collected before yesterday morning in which the  
 water had become so stagnant that it  
 had a decidedly bad odor, everything, numerous  
 sea anemones were dead in the bottom &  
 all the mitraxes and squillae too. The  
 two little Xanthids (Bushy) and the one  
 lone isopod, the only one I found, were the  
 only living things.

Out of Banders ~~Band~~. Jar Jeffers dock  
 collection, the Aidea + Septodius were the  
 only things alive in the stagnant bucket this  
 morning. They seemed dead too, but revived  
 on being transferred to a dish of fresh water.

The green hairless (or careface) mitraxes  
 are very hardy but the Xanthids can't longer  
 that is revive where the others won't.



1924

87

July 31  
~~Aug 1~~

Thursday ~~Friday~~ in late afternoon bet. 3 and  
5 p.m. collected on southern end  
of Bush Key Reef, just north of  
Channel.

got a number of snails but nothing  
new. and a carapace of a  
Calappa

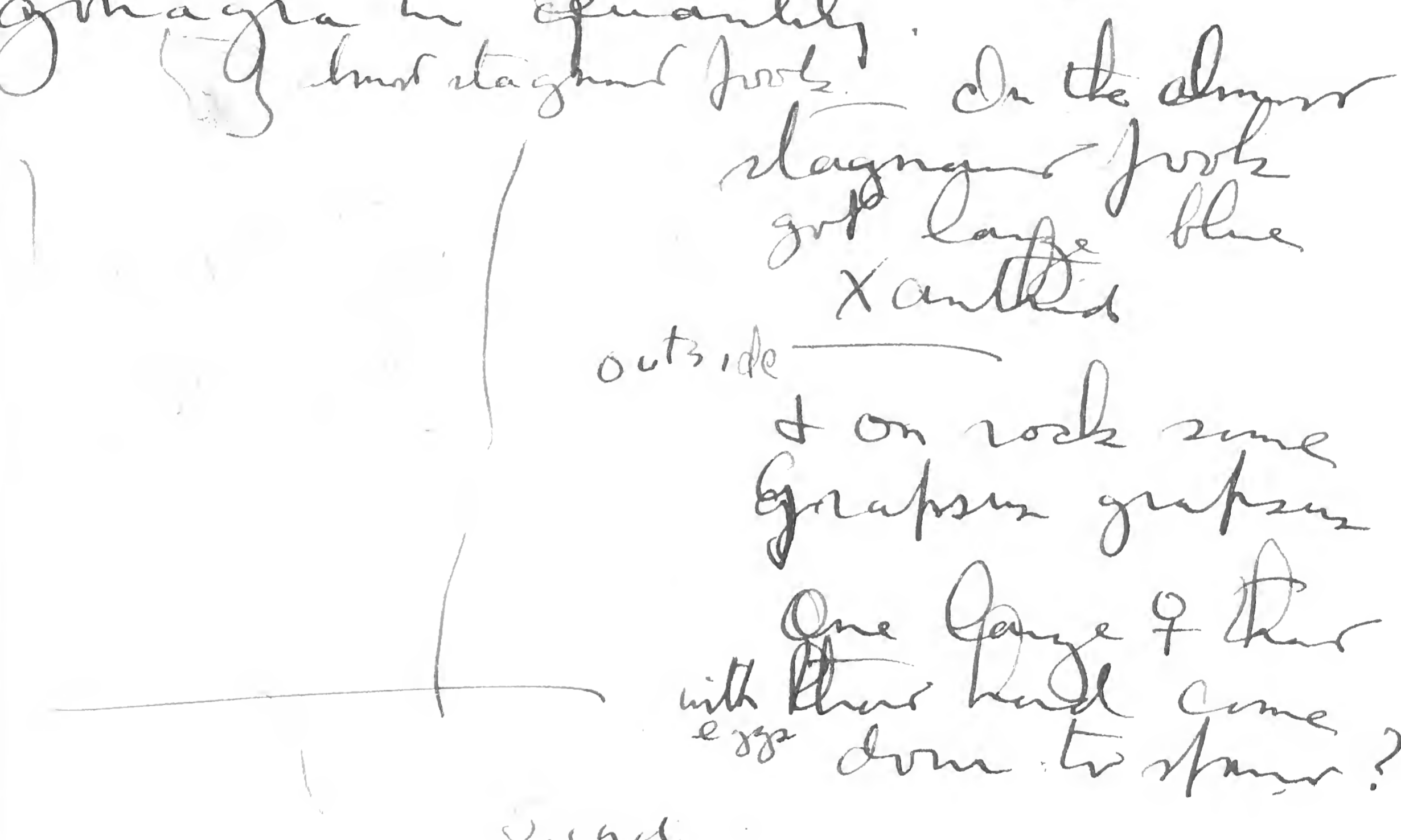
---

Brought back four pieces of seaweed  
overgrown, dead coral, largest  
1 x 2 feet, 3 smaller ones about 1 ft x 6 in.  
some holes in them, cracked them  
in tub, scraped off algae. From  
washing got quite a number of  
crustacea, including another Epialtus,  
Synameta + a Gnathophyllum.

1951

Aug 26  
Bush  
Key  
Reef  
mid

Friday afternoon collected on mid-section of Bush Key reef, outside edge spiders, all over Xanthids especially L. floridana, where apparently spray washes over, literally thousands of them all sizes, and Euphia magna in quantity.



few milletraps, all small + tiny + some microfys on outer side of reef

Washed lot of seaweeds for about 3 ft water for inside of reef bet. it + reef grass bottom

1924

Aug. 2, Saturday, cleaned up stuff collected yesterday.

In afternoon 2.30 - 4.20 collected  
on northern end of Bush Key reef  
south of channel dividing it from  
the reef S.E. of Smy Key which  
reef seems to have much the same  
character.

Seemed more dead than southern  
& middle portions

bone dry	} near dry	gray wet	} have washed microthyrx + Calcein
stagnant puddle blue xanthic		Clit. Trichs Euphrasia (2) Leptodermis 3 or 4 didn't get but 1 pink xanthic	

Got one of ear  
two Euphrasia

Heard snuffing  
of birds & Squabblers

Aug 3,

Sunday a.m.

10-11.30 ~~a.m.~~ a.m.

2511

Shed at west side of Loggerhead  
Key bet light house pier + off N.W.  
of island.

8 hauls  
combined

8 hauls ~~6~~ just west of island  
in 8-50 feet. 1 big A. ero-a

2 hauls N.W. of island on rich  
bottom mostly sponges + cake making  
1 large murex

Dr. Grove gave me some crust found  
with his ascidians, two of them  
amphipods which ran in oral  
siphon for protection; 1 wood +  
a shrimp.

look

palest apple greenish, <sup>really</sup> transparent colorless.

last three but one of epimeral rear  
segments olive x olive green, epimeral  
of same segments lighter



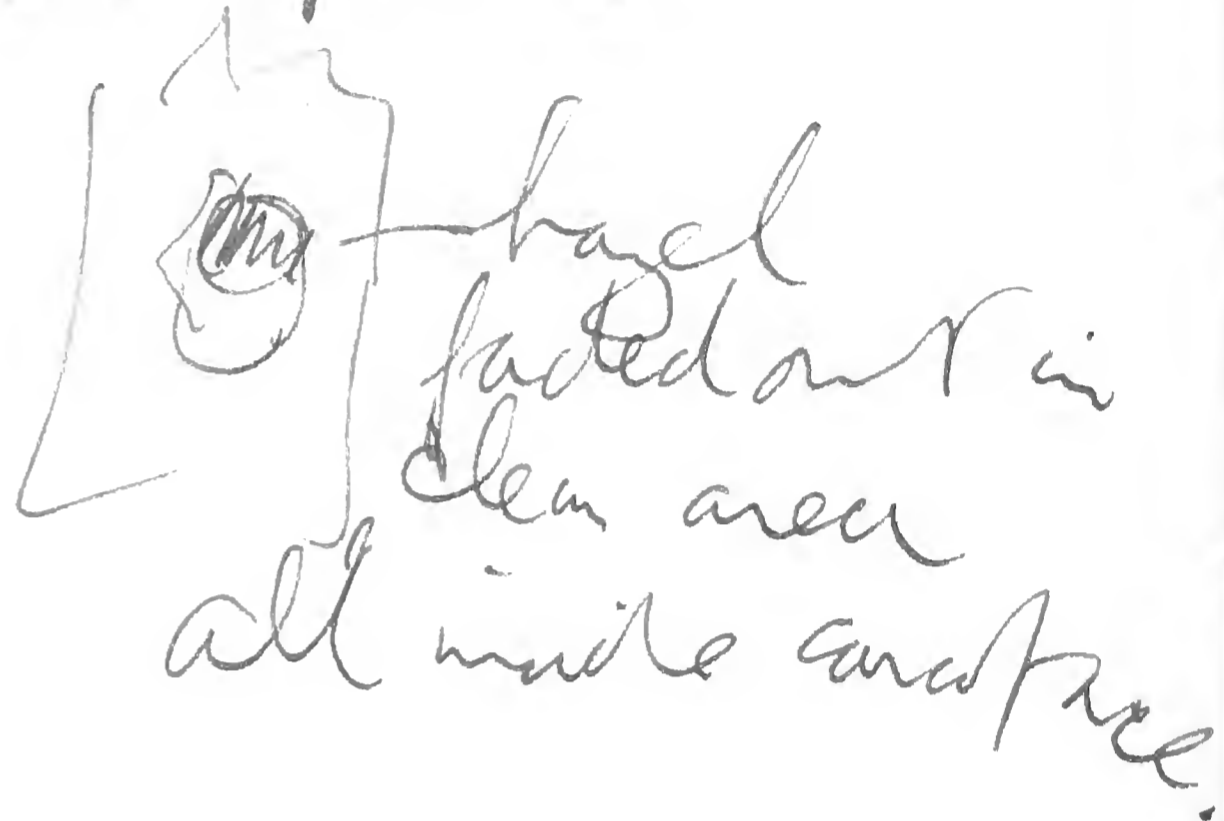
6

eye hazel under white net work

1924

transparent legs all black, flesh, <sup>cornea</sup> eyes with coal black spot in center

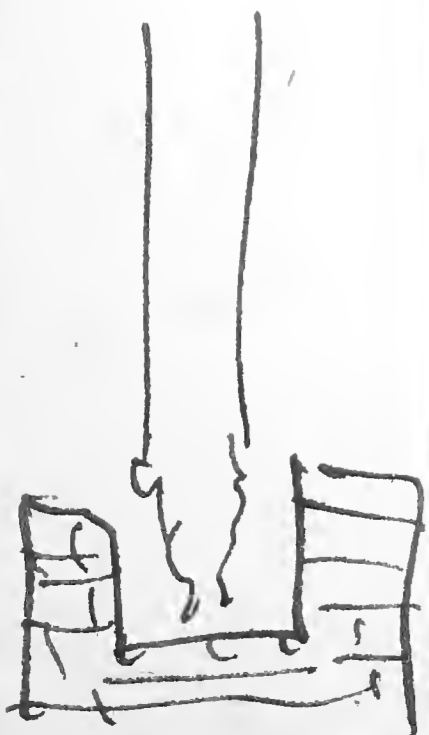
Antennae, antennules legs + tail fan with few opaque with white specks  
stomach hazel



Aug 4 Monday  
 Tried crab nets, over last night in Port Jefferson mount, from entrance gang way. This night + took mail.

Got no crabs though, from some bunches of sea weed from near intake pipe on S.E. side got several crabs

Soft grahoid from around base of pile where it had rotted away from concrete footing



92  
1924  
Monday

1511

August 4.

Went dredging with mill net off  
N.W. end (N.W. light house) of  
Soythead Key about 3/4 to 1 mile  
off the av. 10 feet water, mostly  
all grass bottom, some sand also,  
and, judging from hauls (made for  
a five hauls) broken coral frags  
6-8 inches many 1-2 all dead  
and much overgrown with lots of  
brown gel grass + many roots  
Some hauls were made in as little  
~~as~~ as 5 feet much same char.  
bottom.  
~~See~~



Charley got a Calappa in the mat  
live buried in sand.

with delphes a little away from  
body pushes out with hind legs  
back and, pushes delphes away from  
body, repeat and so works way down  
in sand



1924

Aug. 5,

1924 Tuesday

Used boat dredge looking for small green ascidian in the Grave.

Occurs  $\frac{2}{3}$  distance from wreck to bay of S. end of Sorage, headed in 18-20 feet water, rocky coral beach bottom, much of

it attached. Kind of sargassum & the large broad leaved alga

Jaylor says much interested in

1 little pink *peruensis* discarded in  
an *crab amphipod* *reared*.

Charles secured another *Calappa* with

much more reticulation, lines, lines

finer & more numerous & reticulations

more numerous too, antennae bright

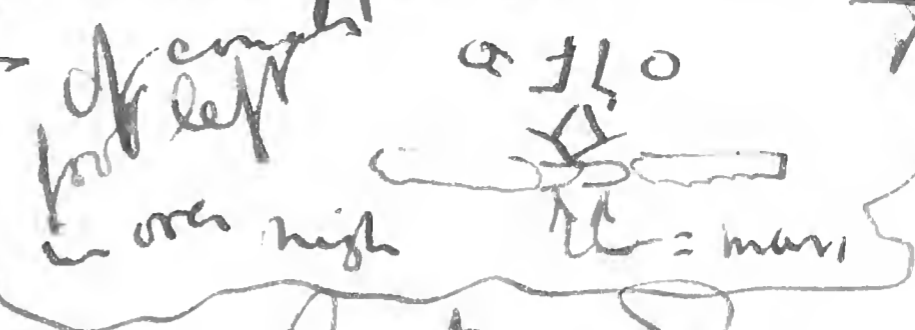
red (geranium red) with narrow white bands at joints

Small Calappa  
Aves. S. Bird Key  
Reef & Beach

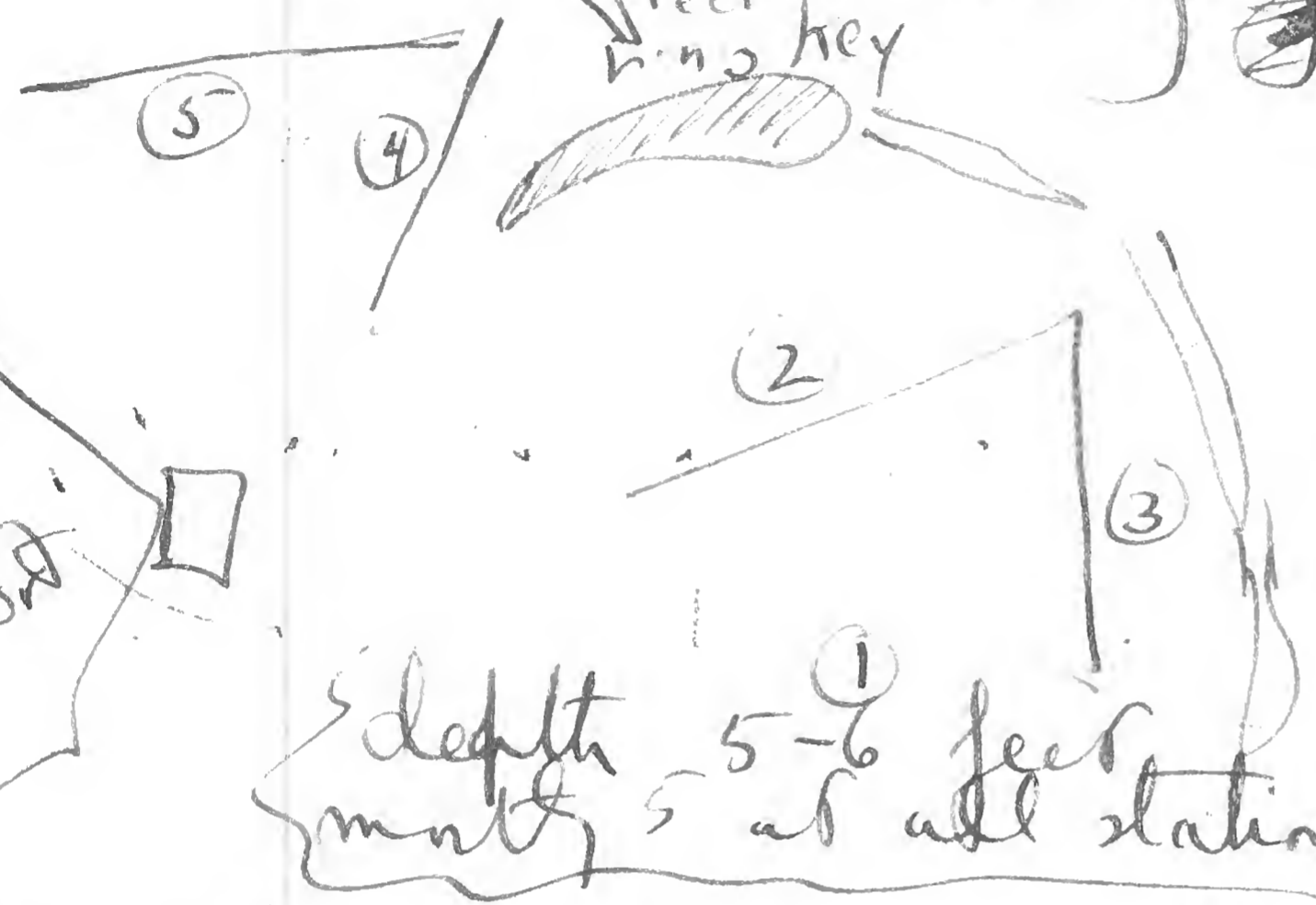
Small Calappa ate pieces

✱

Aug 5 Tuesday contd.



went dredging in area bet. Somy Key + Bush Key reef, all grass bottoms + Sclerogelium.



4+5 the Roub Slidy + green filamentous felt.

In first three of Ozachila and Portunus.

on 4+5, puerulus of Spiny lobster and humber of Portunids.

found a second puerulus but it was all mashed. (Dexter says he has found tiny lobsters on dock piles at station, I have a small one but Dexter has a much smaller one.)

3 ends tells me he never seen lobsters here

\* Calappa has in current opening bet chelipeds + body, shows at opening by removal of currents when they become clogged. Examined when very low tide shows at top of 6 or 8 inches of water. A 1/2 inch high 2 inch in prod of body when half out Oct water, but that may be more to height

but the night I had bleed out most crabs etc. I have a pair of Calappa in a jar of water in the lab.



1924

Aug. 6

Wednesday, Went dredging hills  
dredge in 20-25-30 feet, made  
about 4 hauls; eel grass, and  
loose rock, and coral frag. Bottom  
got Chromis here. 1 hermit, 2 shrimp  
besides some other common things.  
Had to quit because of engine trouble.  
shortly after noon; started at 10, 30

Sight house about 500 ft. S. E. x E.  
20 feet deep. N.E. nearly path of light. Aug. 6, 1924  
eel grass, rock + broken coral.

25-30 feet light. be S + S.W. Fort. E + N.E.  
eel grass rocks, bottom  
picked up one rock 18" x 1 1/2" x 6 inches.

Aug. 7,

Thursday 1924  
Between 10 a.m. and 2 p.m.

Got a few good specimens for Dr. Gravel  
of South end East Key  
in 10 feet water  
dredged

around all on eel grass

(1) East Key in middle ground between  
East & Middle Key (got nothing)

1-5 foot  
rebas

To the south on East Key, headed  
south on eel grass 10-15 feet.

Made ~~two~~ four hauls in this vicinity  
and lost Mills dredge in the fifth

(2) Made 3 hauls with boat dredge  
one on east side of East Key

#6 + 7


second from N end toward middle key  
stopped at channel. All hauls  
unlined due to very similar bottom

little  
grass

eel grass was patchy only with ~~stands~~  
and coral heads between

(3) #8 Along east side of middle Key <sup>headed</sup>  
10 feet water <sub>south</sub>

#9 Hauled across bottom end of middle key headed  
toward Sand Key, lots of *Hydrobia*  
and eel grass, got a clear  
colorless puerulus except for Angel  
eyes + few inconspicuous opaque white spots

Aug. 7. Thursday cont'd  
 also, of a fine white strand between eyes  
 nerve strand?

④ made several attempts to haul  
 around Sand Key, could barely  
 get started but what dredged hooked  
 gave up after several attempts.

5 #  
 10 Hauled on Song Key Shoal, headed  
 south toward Key about half  
 way between the black can buoy in  
 Iowa rocks and the Song Key.  
 Red grass + *Stichogya*, 3-4 feet deep.

Sarge Calappa called "queen crabs"  
 Thunzy, dark red with (filous?) "devil crabs"

Aug. 8, Friday.

Saw the bunch off after breakfast.  
 Dr. Jenner & Dr. Grove  
 Spent forenoon in laboratory getting caught  
 up solutions changed etc. In once  
 fed up to date and not washed. It has  
 been the dickens up till now getting  
 specimens cured for and what brief notes  
 I have written up. Now everything is  
 ship shape for last two weeks.

Went dredging in afternoon.

#1 #2

Made two hauls off S.W. of Bird  
 Key on broken coral, and broken coral  
 10 feet rock bottom, lots of weeds and Scleractinia  
 of water weeds mostly <sup>Dictyota</sup> Hypnea, some Halimeda  
 and green tufted ~~plant~~ (filices) <sup>short</sup> in clumps +  
 the matted filamentous kind, some (little)  
 eel grass.

#3

10 feet

then made one haul in what appeared  
 pretty good eel grass bottom of  
 S.W. corner of house south of piles  
 of old ~~floor~~ foundation, got several

ascidians on bottom similar to first two (1+2) on far  
 then made two hauls on last side of Bird Key Harbor about in 8-10 feet  
 of water great many <sup>Dictya</sup>, some sponges.

1924

99

Aug 9, Saturday.

Took me 3/4 of day sorting through several tubs of weeds obtained yesterday. Of course noticeable things were picked out on launch at time of dredging, but in the sea used found very little as compared to other times; undoubtedly due to fact that it must have begun to mature. It certainly did not keep well over night. Should be washed at same day. Don't pay to get too much.

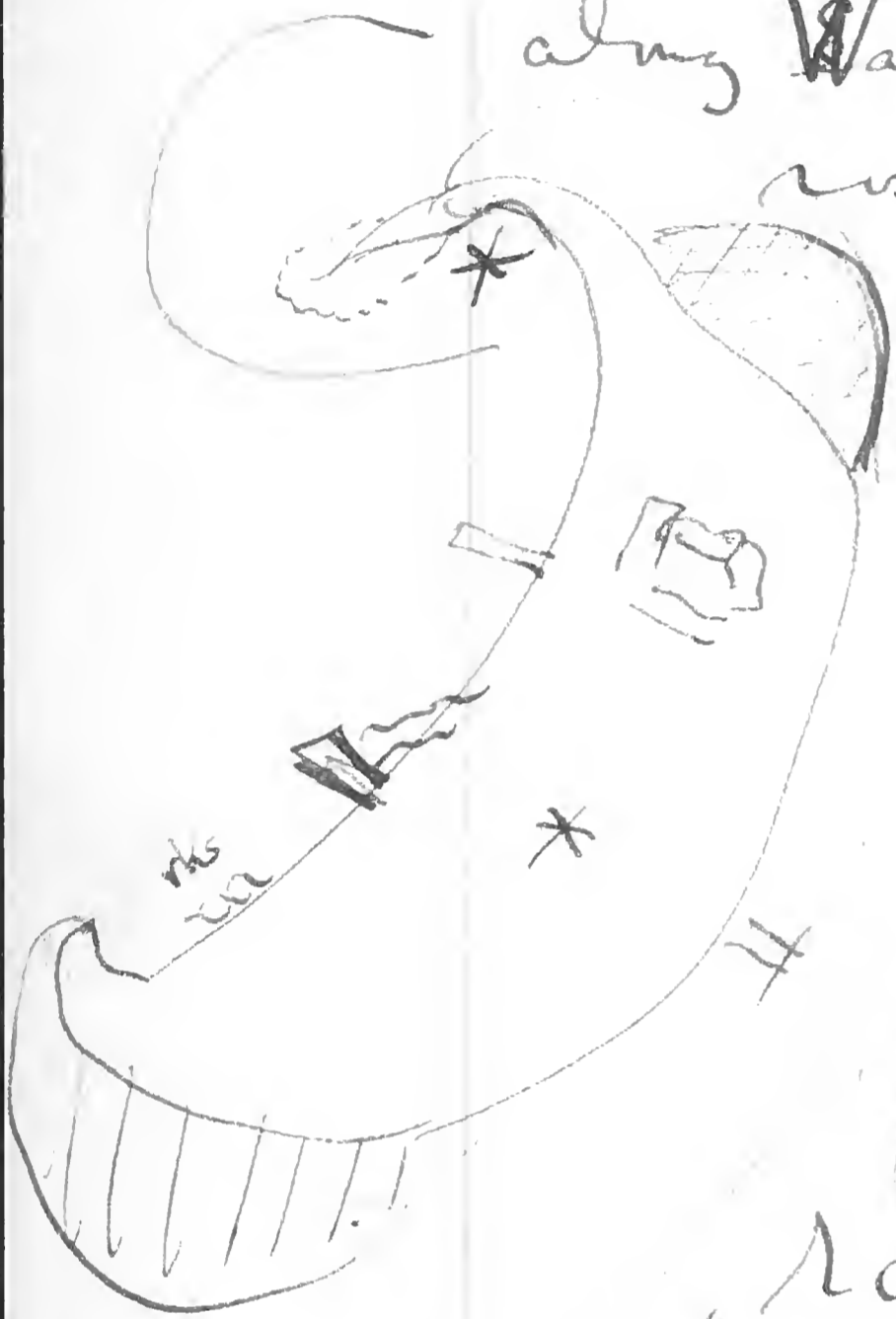
Squillas make most of noise on reef. Have never yet seen them unless spinning dactyls which when you come to think of it are quite weak always knock you with bulbous nose on the snail. as sharp + sudden as when you snap pencil against leg ~~or~~ ~~me~~ against your finger

Aug 10

Sunday ... Soggyhead Key

In the forenoon went up the beach looking for Hippas but saw no traces even attempted to dig in what appeared to be likely places

along West side sandy bottom, few weeds + no rock for shore collect in to 4 1/2 feet. only eastern half of northern flat had some rocks on it, these cracked up yielded a number of things including an brownish Portunid. A Conch shell yielded two Portunids the larger more bluish soft, the smaller hard but it went to pieces over night. Picked up rocks in shaded area, from which obtained specimens collected at north end of island on this date.



\* seine  
here Aug. 12, '24  
50 foot seine

1924

Aug. 10

Sunday afternoon collected along beach and in shallow water along west side of Sogger head key practically no rocks in situ, but those noted north of westside light-house pier didn't have much on them.

Got few things from weeds

water inside of S. point and to north of it up to rocks runs of quite steep to 6 or 8 feet, weedy bottom but few rocks that can be cracked open. Beyond to east of S. point is a large shallow area which tide rip by runs, I got just a few larger rocks here about 1" x 6" x 8" about all there were very little in them, ~~scallops~~ squillas, fish and few small crabs.

From rocks just to north of westside light-house pier got a few tiny young stages of *Pachygrapsus*, and on beach near by two tiny *Oxyphodes*

Then well off southern point of the single brought out larger rock 2' x 18" x 18" which yielded ~~specimen~~ specimen of rock stuff some gray *Petrobellerophon* + orange *formosus*.

Aug 11. Monday, spent forenoon getting  
 yesterday's stuff in shape // in afternoon stayed in  
 boat till dinner time // bet 1.30 and 4.30 actually  
 stood that Cuscuta rarely swims <sup>in water</sup>  
 is usually upside down in sand  
 looks all the world like bushy hydroid  
 or alga. Got several *Thomomys*  
*sydneyensis* and *Sesarma*  
 found no traces of Calappa though  
 looked hard.  
 Charly said he only noticed large  
 ones because it was but half  
 buried

rather pin under  
 large chrysalis in  
 five foot channel  
 N. of Bird Key  
 reef.  
 be got  
 some  
 days  
 ago

Aug. 1 Tuesday reined just inside  
 N.W. point (N. end) of Doggerhead Key  
 see sketch of Aug 10 p. 100) got *Pompano*  
 + jacks and several fishes th. singly  
 had not yet seen.  
 and a few blue legged *Portunus*  
 and two *Podochelais* // On afternoon worked  
 north section of Bird Key Reef (Benders channel  
 reef) got a *Sarothra* *versiformis* was  
 yellow, floating around in low tide foot  
 among weeds. And more of general  
 run of common stuff. 3 long-armed Xanthids  
 1 medium + 2 small = dark middle over  
 top of Bird Key.

Full Sands  
 got several large  
 lobsters  
 largest exclusively  
 horns to tip  
 telson 14 1/2 in  
 4/8 in. wide  
 from tip of tassel  
 10:30  
 AM  
 P.M.  
 2-4 P.M.  
 actually on  
 reef.



1924

103

Aug. 13. Wednesday, cleaned up yesterday's  
collections this a.m.

In afternoon worked south end of  
Bird Key Reef.

It is very sandy and there  
seems to be a drift down size and  
variety, fewer large mitras  
than on northern end, and the  
Septodius is <sup>much</sup> smaller. Crangons  
seem to be all the greenish kind  
and the small squillas however  
fewer. sand to greater amount of  
shoal water and lack of a channel.

Aug. 14 Thursday. Cleaned up yesterday stuff and went through a large Dyer head for "shrimps" two halves of sponge that is contents of bottled separately. Sponge was about 18 inches in dia. across the top and 12 inches across bottom & 12 inches high.

In afternoon owing to fact that I had to finish up the second half of the sponge after lunch.

Went out near there looking for to see if part of Smyke Shoal would be out of water at low tide. Lowest place was  $2\frac{1}{2}$  - 3 feet under water (where we bumped the other day) here I picked up some perforated red weedy rock; and an old worn empty shell which had 3 reddish brown millerases in it; and these color phases of the green on with two spines on carpus.

Got about 6 *Epicatella litorea* ~~with~~ from *Hymaea* saw on <sup>large to</sup> medium *C. formosus*

1924

Aug 15 Friday, Cleaned up yesterday's rocks + weeds  
this am. //

In the afternoon got about an hour mid section  
of Bristle reef.  
{ saw many ~~some~~ squillid  
gave Benda one sample } only caught a few.

some of specimens put in sugar solution.

Shrimp with apple green eyes + some similar  
marking walked about with abdomen tilted  
high in air.

The *Pilthox pulmonis*? (hairy one) was  
on outside of reef where surf comes in.

Aug. 16 Saturday, dredged with the John,  
made 9 hauls on about a S course  
from channel buoy.

Ran 30 mins due south of buoy.

# 1

dredged at 9.20, 15 min. tow.

20 fms.?

net on deck at 10.45

little grey ooze, + grey sand, shells, net  
carried away, boat dredge hanging  
by one side aft; one long bag of dyes

# 2

20 fms.

Same course, net over at 9.50 wh at  
10 o'clock. course, (sh) shells, sand.

# 3

25 fms

net over again same course at 10.05  
on deck at 10.30, coarse sand, + shell frags

→ about 10 miles S of S.W. Channel buoy

# 4

37 fms

at 11.10 a.m. 37 fms, net wh at 11.35  
= soft grey ooze like wet cement with  
practically no, or no sand.

1 Siphonid from the mud  
1 one small star fish

1924  
Aug. 16. cont'd

107

# 5 Headed back at 11.45, N.  
35 fms. Net over @ 12 noon; muddy-grey ooze  
bottom and frag of alga wanted.

# 6. Net up @ 1.15 p.m. course round and  
30 fms. little more of desired alga. <sup>added to</sup> ~~continued~~  
preceding under 5.

# 7. Net in @ 2.30 (20 fms.) course  
20 fms. sand, shelly  
about 9 meters

# 8 Running S.E from # 7. Net up at  
25 fms. 2.45 (25 fms). Sand mixed with  
some mud as before.

# 9 Turned back toward light @ 2.40  
(about 1/2 hr run)  
20 fms. Dounded @ 3.15 20 fms. (headed <sup>slightly</sup> ~~to~~ N.W. + N.)  
more than a bucket of sand dollars  
Net up at 3.40  
Passed buoy at 4.25 p.m. } Mills says this  
of Buoy. } haul is 45 mins S.E.

Dr. Huxley got a large Pteropus he saw swimming as they  
were going over to the jetty in the Darwin as they were to get  
it took refuge in some floating gulf weed. Scooped up with dip  
net. Earl got a small to medium Callinectes on weeds in first  
new cover paper where he went to dip with a jelly fish

Aug. 17. Sunday fore + afternoon cleaned up yesterday's stuff

10 feet water N. end logger head reef

Longely coll.

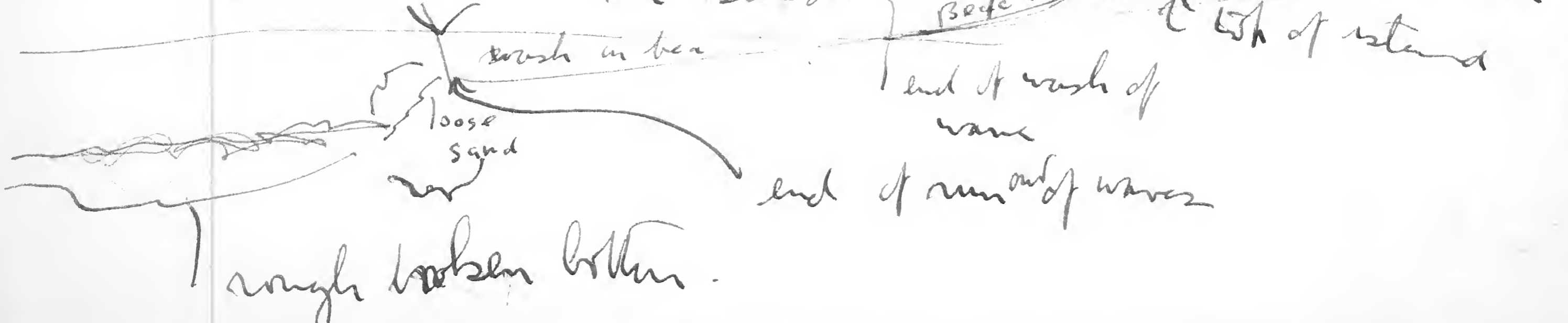
Mr. Souley brought in a beautiful large Stenopus hispidus <sup>Sizes in holes</sup> in coral heads with long antennae caught by disturbing <sup>giving it away</sup> when it comes out to see what the trouble is.

(Just like spinning lobsters and tickles) Mr. Souley says almost every large coral head harbors some (or a pair) and is uncommon.

Portunus ventralis A.M. - Edw

Just before supper put in half hour on rocks and did not get few common things

Bender cleaned out a few sea urchins and threw remains on beach noticed that they disappeared and saw bits of them sticking out of sand; and taking up a pinch of grass of sand found Portunid marked with date.



1924

Aug. 18

~~Monday~~ Monday, cleaned up yesterday's stuff and in afternoon, 2 o'clock, went down on rocks below light house pier. got a few bunches of weed + couple of shrimps from gulf weed

East side

Bender walking along shore ~~saw~~ saw a *Stagnum* sliding over rocks just below surface he called me. I was waiting out in deeper water with the water glass and coming up behind I slipped the little dip net over him.

This was the second Bender you seen; the first one got in a crevice <sup>among</sup> the rocks and got away.

Also found <sup>piece of</sup> a *Hippa* shell on beach + pieces of eggs.

Got a *Crangon* + an *Epialtus litorbuculatus* from the weeds

110  
 Tuesday  
 Aug 19, ~~Wednesday~~

(1) Went over after breakfast to collect on beach at No. n.e. end of Fort north. E. corner of N. coal dock just got a bucket of weeds from two racks too rough + windy to do more.

(2) Then went around to lee side of moat wall, bet. beach + south of entrance to moat.  
 Bender got several swimming crabs with my dip net; I missed about 6 chances with hand small dip net  
 This is maybe best place for finding crabs sandy areas + eel grass patches, in about 4 feet of water. Two largest were wff.



1924

111

Wed. Aug. 20 tide was lowest about 8.30 or 40  
though scheduled

*Callinassa* burrows, laying antennae  
back along back; antennulae are extended  
between chelipeds, deep digging with side  
legs, abdomen folded up upon itself  
as soon as carapace is buried in  
sand.

- ① Bird Key reef not out at this "low" tide
- ② then tried Bush Key reef in two places throwing  
shovels of sand in the edge table; first  
place sand and coral fragments  
got one *Crangon* (heterochelid?) and a  
magnesian plate out of little beach got  
nothing.
- ③ Went over into seining inlet and dug  
around the humps in sand with holes  
in them in about 3d shovel full got  
a *Callinassa*, but it was the only one  
I could dig up, in a very considerable  
number of attempts apparently was in the  
top of its burrow when I happened to strike

Aug 21, Thursday

In walking along higher parts of beach the boys got 13/2 inch <sup>wide</sup> Calappa shells one 2 1/2 inch <sup>long</sup> Chama, a Portunid + an Euphia

wanted to seine on sand Key + collect on rocks but Sh. Sangle thought it would be too rough (an also too much like Doggerhead Key.


①

As result went around South end of Island looking for Hippa, offered birds 50¢ for first live one, but have yet to get one

No signs on beach; dug in several places that looked likely, and looked along wash of waves with water glass. but found nothing.

Looking around on rocks, not a very large spiny lobster; and secured a small *Mithras vernaculus* from a hole in rock. Had to <sup>chase</sup> ~~pick~~ <sup>in near</sup> ~~at~~ <sup>of</sup> me, but through the I picked him up with dip net

②

Heater and Earl went seining in cove at north end of island; got a few more Portunids as on previous occasions as well as fish; and one like true Bender hatched out of sand and with reverse coloration on carapace area slate, lateral grayish  (put in benzene solution)

③

Sh. Sangle; while studying fish off Bird Key reef brought in 3 *Stizodactylus* later for 3 or 4 inch <sup>long</sup> brought in 3 inch <sup>long</sup> of which I saved one + two which I planned to sell

~~1924~~

1924

Aug 22.

Friday,

went down on rocks below  
Sight House pier got a few crabs were  
put in bottle but not labeled as it  
had to be packed too soon. Got a *P. grayi* in small  
Condshell had to  
break part to get it in bottle.

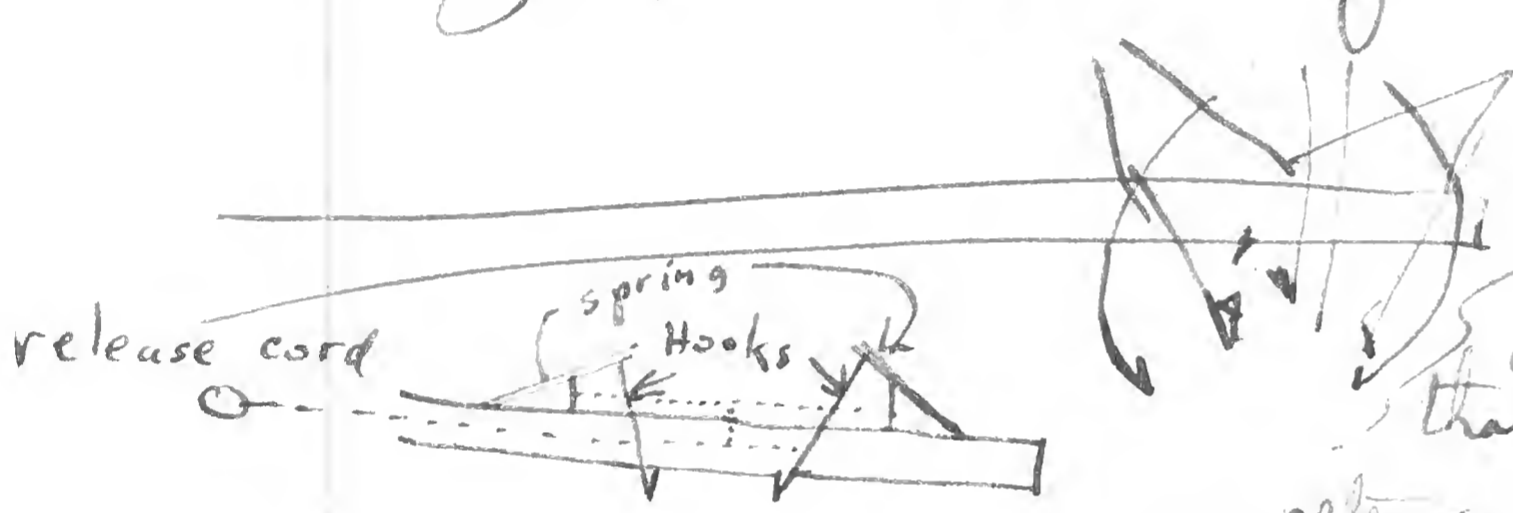
in a long rather deep crevice saw  
around 4 or 5 *Peronopsis* I am quite  
sure, pulling weeds off rocks with  
cheliped, had bright (brilliant  
lens or light) yellow markings + edgings  
Antennules ditto otherwise a rich brown  
tawny ochraceous with darker <sup>= burnt</sup> <sup>umber =</sup> black brown  
and spines and markings; but  
couldn't catch any.

Termin brought in three *Pachygrapsus*  
and a *Stromia* from around dock piles.  
are put in bottle with above but unlabeled.

if any *Pinnotherids* might be in alimentary tract.  
Got nothing

Aug. 23 Saturday

I went down on rocks again for ~~half an hour~~ an hour and half actual time on rocks below light house pier to get a Percnum if I could, but they still eluded me. One needs a sort of a spring contrivance which shoots out bolts to catch crabs like these in light, or dove quadrants like rock crabs



Hooks that will shoot down in when released. Or something in pipe that will snap out release.

The jungle gave me a Hippa that had been taken earlier in season. I suppose a beach near docks where Bender said he found one too earlier in season. too

Aug. 24 Sunday



Beneath red in some place on under side of men's under side of trousers & curbs as close above but less of it as dach above

Abdomen scraped off

1924

115

Aug. 24 Sunday

Got my *Pirene* this morning  
for that is what it proved to be  
that is I got most of it

this line  
green like *lebr\**  
citrus yellow



+ antennular flagella  
extreme ventral spines *citrus\**  
& has on lateral spines *yellow\**

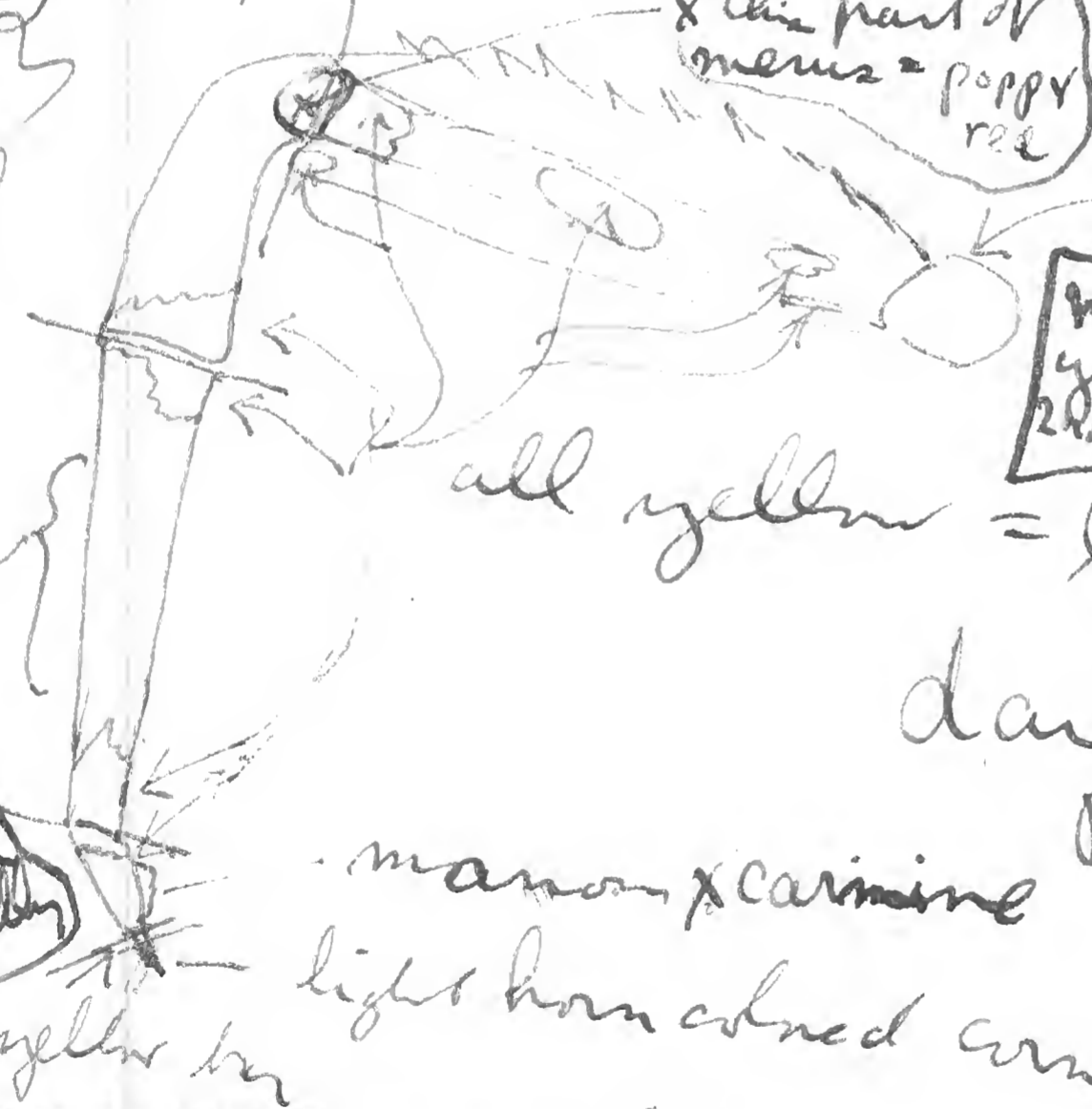
~~on~~ Areas on carapace  
behind eye dark golden  
greenish  
apple green with a  
golden iridescence cast

rest of spots & median  
transverse lines dull apple  
green (bet apple & malachite  
green)

Things hairs pre + aft on  
meral joints, almost spica

& this part of  
merus = poppy  
red

cornae  
hairs



meral spine  
yellow maroon like  
2nd row of small spines  
all maroon

under here on anterior  
side is low  
padding at  
both ends of *citrus\**  
yellow

all yellow = lemon x canary yellow

dark part burnt sienna  
Bay + chestnut shades

pubes  
mostly a  
darker  
brown with  
chestnut shades  
yellow hair

maroon x carmine

light horn colored cornae claws

Citrus yellow line running around front begins just  
beneath margin of carapace, on epimera, in front of point  
of *apple*, touches ventral border of orbit and is half  
on either side of row of five spines above maxillifeds

under side of legs plain anterior half merus = dark  
Basis + ischium = straw yellow posterior half = light  
Sienna

116 1924

Aug. 24. Sunday (Cont'd)  
also got a <sup>(fish)</sup> large red miltray this morning.

(2)

After lunch hauled the 50 foot seine  
once into the. Single for minnow  
got some large, but most small  
and 6 pounds, of which I preserved  
2, and the other Portunids, all today's  
junk bottled in a quart mason jar  
unlabeled & shipped in sep small  
acid box.

Finished packing & shaved -  
already to go !!!

*[Faint, illegible handwritten notes]*

David H. Ogden  
 Groton, New York.  
 R.F.D. 14 Route.

Fermin Rebello  
 617 - Virginia; Key West.

- 1 qt. milk
- 4 eggs
- 2 table spoons sugar
- 1 small table spoon salt.
- 3 table spoons shortening and butter
- flour to smooth batter
- 2 heaping teaspoons baking powder  
 be sure heaping "Rumford"

~~real butter not~~  
~~margarine.~~  
~~used butter~~  
~~himself~~

Woodland 4941 - W  
 Charles R. Burrows  
 Eaton R. Burrows  
 5915 Chester Ave Phila. Pa.  
 "you can't find"  
 Buffalo.

1924

Aug. 25, Monday.

Low uneventful trip in left at 7<sup>20</sup>,  
got in Key West about 5<sup>20</sup>,  
I got my order + went R.R. office to  
tickets.

Met — Van there he took me  
home to meet his wife Mary Wells.

Rushed back to ship to get luggage  
made hasty goodbyes, missed milk

and after some little drinking around  
town; they took me to the train  
Sup. Train 16<sup>30</sup> left

Aug. 26.

Tuesday enroute

Break. 65 + 20 // Lunch 1.25 + 25 //

Mailed request to station (express  
a gun at Key West to send  
express to Daphne Park.