

## COLOR NOTES

Tortugas - 1930

#7 July 1930

Scyllarid

Carapace

Fine mosaic, as it were, of vinaceous cinnamon, vinaceous pink, and vinaceous buff. Carapace buff pink, eyes grey with small black central spot.

Carpus, merus, and propodus with median band of auricular/purple occupies proximal half of carpus and middle of propod. and merus. Dactyl without color except very light corneous claw, merus of last legs without band.

#7 Small crab.

Small brick red spots on top of chela and carpus and ant. end of merus, also on distal end of legs and line along top of carpus extending down a little over sides distally but only on top of propodus, carapace and crab otherwise very pale cream buff, eyes near clay color, eggs chines~~e~~/orange.

July 13, 1930. #8-30.

Alpheid: reddish brown marks on inside face of large chela (the only one present). Antennal and antennular peduncle with same color, gastric area ditto. Legs and epimera colorless. Square patch on hinder part of carapace ditto and bands of color across each somite with white, [or] rather colorless [area], between [bands]. This can be checked against specimen if any color pattern (no color remains).

Lyreidus (*Raninoides loevis*) same station little greyish across middle, little yellowish brown anteriorly, all so faint that in life almost colorless.

Another [alpheid] like this from #7-30.

In greater central part of carapace, stomach area ... except 2 white elongated spots behind eyes [has color] between is wax and gallstone yellow. Legs and epimera colorless. 1st somite of abdomen row of spots on hinder margin and double line of 3 or 4 either side of median line. 2 & 3: Almost whole of 2nd and 3rd somites covered with spots except narrow white stripe at ant. and post. end. 4, 5, & 6: post. half of somite spotted and telson and tail fan scatteringly so. Peduncles and scale longitudinally spotted. Area between eyes and st. line either side of eye marking ant. border of carapace. Carpi spotted, and few spots on ant. end of merus. Large chela banded, fingers colored, small chela with one or two irregular bands and fingers with longitudinal row of spots.

[July, 1930]  
#10 Large shrimp

x = yellow = light gamboge yellow with linings made up of many small crimson spots. All over white with finest clove brown spots not seen without glass nor hiding color. Last somite and tail fan white, legs distally for 2/3 of length pale brick reddish.

#10-30 Parthenopid.

Fingers maroon, legs cream buff ground, with many seal brown spots. Carapace broccoli brown with few brown spots and white spines making white spots also on arms.

#10-30. Dorippe (*Ethusa microphthalma*)

Legs a light flame scarlet, darkest on dactyls to lightest on proximal half of merus back. Back salmon color, under dense cream buff pubescence. Corneae gray, tips of fingers white.

[July 1930]

#10-30 Porcellana

Vinaceous X salmon buff, with median line of claret brown, with  
irregular lines running back toward middle  
in regular pattern of triangles

#10-30 Large Libinia-like.

Pubescence all over buff to pinkish buff, with few reddish patches  
( ) on anterior half and particularly on eye hoods and  
inner base of rostral spines, tips of all spines china white.

Fingers of chelae black part Prouts brown just before base white as is  
distal half of palm, rest like back of palm.

#10-30 Spidery Paramyza.

Pinkish vinaceous deepest on eminences and whole of rostrum and frontal  
part, tips of spines white except rostrum, legs very pale pinkish tending to  
white. Eggs of female madder brown with some coral red. Whitish on epimeral  
regions and below.

#10-30 Leucosid (Myropsis quinquespinosa)

Buff to buff yellow proximal and distal extremities of leg joints  
and margins of carapace; front between eyes darker, almost orange ochraceous.

x - yellow - light gamboge yellow with linings made up of many small crimson spots.  
All over white with finest clove brown spots not seen without glass nor hiding  
color. Last somite and tail fan white, legs distally 2/3 of length  
pale brick reddish.

#10 Large shrimp

23

[July 1930]

#11-30 Phronimas

One without young or eggs central mass is sort of an ochraceous rufous color and rather solid and dense looking (ovaries, etc.); other with young in test is semi-transparent of very pale salmon color with one brighter solid spot of saturn red.

Young between liver brown and maroon in color. Tiny male with two tiny black eyes. Females seem to have double eye--outer spot and inner band on each side, both jet black.



Male hangs on tight at one end of female without eggs, can reverse in test. Claws trail out hind end. Telson and 2 or 3 somites of abdomen protrude at hind end for steering purposes. In magnesium sulphate tests shrank about 1/3 size it seemed.

#12

#12-30, 1930. Axius

Inner and lower antennular flagella maroon purple banded with lighter between, upper and antennae auricular purple banded with lighter between. Body marked with coral red and somites<sup>all</sup> of abdomen colored like carapace

except last mm. or 2 of epimera, which are palest lavender like rest of carapace.

Carpus, propodus, and dactyl of all legs more a vermillion.

~~Merus red except x areas. Ischium~~  
~~whitish like x areas of merus. Hands~~

[July 1930]

#12 - 30 Axius - Continued

Merus red except x areas. Ischium  
 whitish like x areas of merus. Hands  
 largely China white, very hairy, externally  
 upper outer edge of propodus weakly Saturn red. Outer articulation and upper  
 border of palm coral red in part, color largely concealed by dirty hairs drab  
 and lighter. Eyes grey with jet black center, eyestalks china white,  
 carpus saturn red above under hairs.

Ischium china white except large fleck of  
 vermillion with line on upper outer part  
 of base.

#12-30 July 15, '30.

Color markings between violet and  
 mauve purple, and articulating membrane  
 of each somite of abdomen a lighter  
 purple. Otherwise body light vinaceous  
 cinnamon x buff pink. Legs and chelipeds  
 ditto except fingers of latter are  
 crimson.

[July 1930]

#13-30. Townet haul - copepod.

*fig. 1. net*



[July, 1930]

#14-30 Shrimp like one/color noted for #10.

Yellow on rostrum at least is citron yellow, with finest rest speckling only visible with glass.

#14-30. 2 Peneids.

Faint red linings of tiny specks or spots along ~~mark~~ top and sides of rostrum and marking somites of abdomen, orbital margins, eyestalks, and peduncles. Ant. flagella red spotted at wide or irregular intervals, legs white, body translucent transparent. Red between poppy and carmine with touch of each.

#14-30 July 15, 1930. Raninas (*Lyreidus bairdii*)

All over above and legs paler light orange rufous, darker toward rostral spines, which are white on margins and tips. Edge of carapace all around white, as are margins and tips of lateral spines. Thin last legs and paddles pinkish vinaceous (look as though a dark of lavender had been added), as are chelipeds and fingers, a ~~gin~~ tinge of orange rufous at articulations near insertion of movable finger on palm. Underparts sort of bluish or grayish china white, dactyls of all legs light, more a lilac than the pinkish vinaceous.

#14-30 Pyromaia of this haul.

Foreparts of carapace and rostrum mostly pinkish vinaceous with tubercles and smaller spines almost hazel. Large spines lavender grey (china white) as are all sulci on carapace and <sup>n</sup>central spine on abdomen and margins of carapace and dactyls of legs and fingers of chelae and underparts and lower margins of palms. Legs and chelipeds otherwise fuzzy looking of an olive buff color (dirty white).

#14-30 July 15, 1930. Cymopolia.

Chelae and fingers china white, as are insides of all joints, outer side of carpus, and merus. Carapace largely clay vinaceous rufous X color with vinaceous cinnamon on hinder slopes of all eminences and tubercles, approach which ~~appear~~ white on top.

Circles and lines but to indicate location of violet eye spots with outer lavender area eye spots proper and solid part of white area margin dahlia or pansy purple.

Legs colored on under sides as <sup>above</sup>~~as~~, but more the <sup>a</sup>vinaceous rufous and more reddish color but much paler faded out looking. Corneae black, stalks like carapace in color.

#14-30 July 15, 1930. Large Stenocinops

Red on carapace = poppy red, mottled  
with whitish  
below bluish white

Red on legs = scarlet vermillion

Back covered with barnacles, smaller ones of another species under edge of  
carapace.

[July 1938]

#15-30 Sicyonia, a most powerful jumper in preservative - weak alcohol in which Crangon of this day died quite quietly.

Sand color, grayish all over, eyes very grey but more a dull white, mottled with drab gray and hair brown and olive buff to limited extent, 2 wavy lines of crimson on sides of carapace and a dash of one each obliquely on each epimeron of abdomen abd. somite, two almost vertical on first somite

#15-30 July 16, 1930

Two tiny whitish transparent Palaemon showing no color to eye. Under glass with few faint oblique dotted lines on carapace of tiny crimson spots and dash of color on bases of 3 & 4 legs between end of ischium and body. Eyes largely grayish, eggs pale olive.

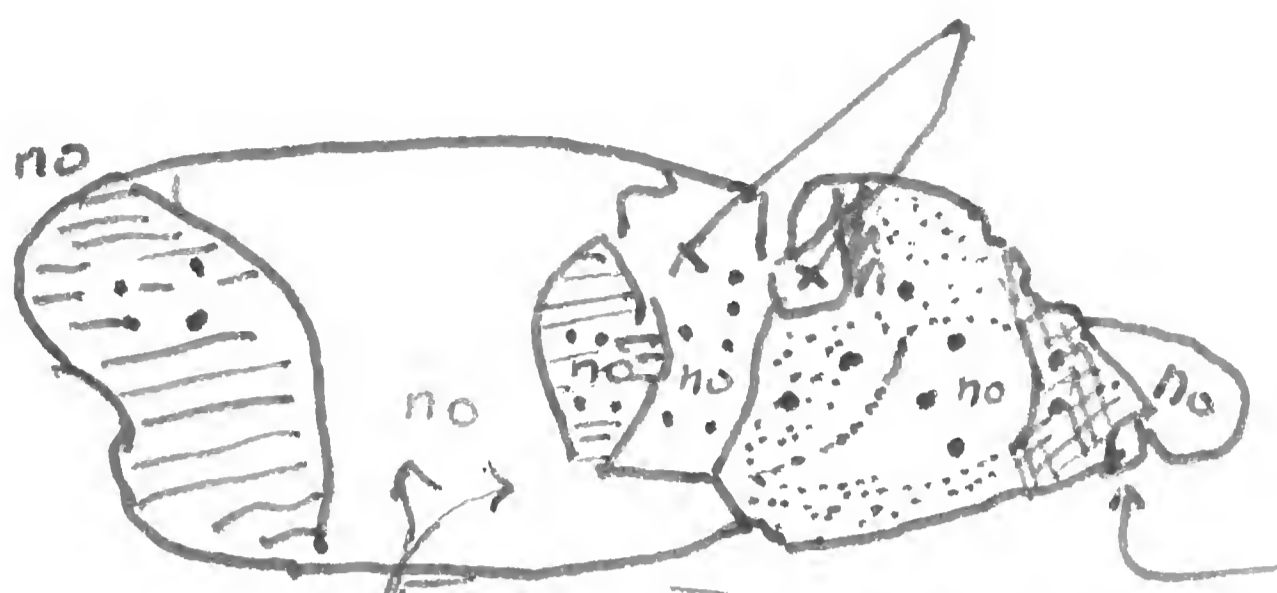
#15-30 July 16, 1930 Alpheid

Body and chelae and legs orange  
chrome

Shaded area, frontal region, and  
peduncles more red, perhaps if

scharlet vermillion were laid over the orange chrome where gland shows through carapace and abdomen color is orange. Abdomen otherwise and tail fan more a saturn red than orange chrome. Eyes small and black. Dactyls and flagella trans. white. Eggs orange.

#16-30, July 18, 1930.



[this area] light bic green  
with light stippling of red

tip of palm opposed to movable finger  
finger = [13]

*finger 13*

#22-30 July 19, 1930. Small light colored Synalpheid from Strombus shell.

Fingers and distal adjacent portion of palm pale straw yellow, same color of "glands" on sides and behind raw amber stomach (which looks greyish overlaid) through chitin. Body and palms translucent whitish, much paler than #10 <sup>gray.</sup> ~~gray.~~ Speckled all over with ? #3 blackish slate spots, none on legs and che/lipeds.

#28-30 July 23, 1930. Speloeophorus nodosus

Color of dead piece of coral like Squilla house of #5-30 with overgrown purplish and greenish algae and patches of red ones, natural hairs and other like attachments and worm tubes. Hands perhaps natural greenish cast but reticulations more around whitish areas (? granules) greenish = pale bice green. Over articulation of fingers faint vinaceous pink? Fingers dull china white. Eggs black eyed, transparent drab color. Legs dirty white, merus with whitish spots and greenish reticulations, and with vinaceous median cross bar, as has above carpus across middle of upper side and propodus ditto.

Very readily plays dead. Eyes not distinguishable from rest of coloration of body. Stream of water out of central hole or perhaps from under right max. that side antennule was only one testing outcoming stream of water. Hind holes have no function with respiration current tried them. Ink particles went in all around maxillipeds. Underparts dirty whitish, abdomen greenish, darker in pits, markings much as in Hays photograph, perhaps vinaceous cinnamon.

—4/15/68

P. 13 to Dr. Schmitt

to check

(manila folder with  
1930 Zost. Sta. records)

[July 1930]

#29-30 Trogllocarcinus

Visscher gave me two marsupial crabs cracked from coral, of which lots were inside and some outside of Bird Key Reef.

Anterior parts and ant. fifth of carapace sort of bay, shading over into middle third of carapace, which is sort of olive to tawny, shading over in hinder part to abdomen, which is like Indian or saffron yellow; all red ~~spots~~ speckled, carapace and abdomen; telson like middle third of carapace again, abdomen ~~xxx~~ color due to eggs, epimera of abdomen white.

#29-30 July 23, 1930.

Small ~~Stenopus~~ Stenopus largely red ~~red~~ all over.

Legs red except dactyls, distal and proximal ends of propodi and very little of distal end of carpus. Cheliped red, thought I had both but animal seems to have lost other one.

Abdomen, or at least tail, ~~fan~~ fan carried at right angles to abdomen. Under parts, except all mouthparts which are red, are white, epimera red. Distal halves flagella white.



#31-30 July 24, 1930 Large alpheid.

Carapace and large chela bay; large chela white spotted, carapace with whitish streak suggest between hinder and middle thirds of carapace. Legs and small chela more between madder brown and vinaceous rufous. Fixed finger part of large chela mummy brown.

Movable finger orange-rufous with blunt end whitish. Flagella whitish, ringed with broccoli brown, thus giving them at little distance and without glass a hair brown appearance.

Smaller (medium sized) Alpheid, blackish barred one with blackish hands.

Smallest of 3 = C. formosus.

Little rough backed Pylumids, 2 of them alike, carapace looks fuzzy dull, between walnut and russet. Spines on chelae showing through deep crimson, fingers and lower half hand same, but seemingly more ~~maroon~~ maroon in tone, tips whitish, legs more due to whitish dirty hairs, this color runs up on to hinder half of carapace.

#31-30 July 24, 1930

Distal half of large chela (cerise) more purplish, lighter parts of rose red. Entire body, hinder half of large hand, and all but fingers of small hand palest pale blue. Eggs under abdomen grass green, those still in ovary paler like light parts of Paris green, abdomen looks light green except epimera, which are bluish. Small chela, except extreme tips of fingers blue, tips cerise. Stomach dark of sage green = X, shaded area pale ochraceous.

One of these found under sheet of coral, this under cracked out of rock clump.

#32-30. July 25, 1930

Notes on color of Porcellanids in "day" book. Little light whitish cream colored Xanthid color of old coral, fingers of chelae cinnamon-rufous to hazel, with extreme tips whitish, only first two ambulatories colored and then only propodus and carpus and proximal half or third of dactyl, color = the dark of Indian purple. Third ambulatory leg on left side similarly but faintly and only suggestively so colored. Distal end of meri of colored legs and proximal third of propodi of uncolored legs on outer or anterior margin with small fleck ~~of~~ of broccoli brown; few light spottings of same down median line of carapace and over branchial regions somewhat like

*Actea setigera*, eyes cerise like claw of *Synalpheus*. Body covered with between rufous, ferruginous, more former, fuzz all over. Meri whitish inside as seen from above, fingers hazel to chestnut, areolations don't much show in white granules.

#32-30 July 25, 1930. Little shrimp picked off bottom of stone.

Largely transparent when first taken. With several days in lab. stomach got more reddish and whitish spots, of which there <sup>[are]</sup> few, more numerous and of a denser appearance. Eyes colored as in Graves' specimens of July 28, 1930. One had quite reddish, between maroon and crimson, mouthparts. Female with eggs colored like Graves' specimen; surely this one will prove ovigerous when pickled.

~~Inkxx~~

#32-30 July 25, 1930. Lumpy Actea.

- 1 largely bay, other lumps. The light of vinaceous cinnamon to almost cream buff with whitish granules. Bay color distributed much as in sketch with some lighter.

Tops of joints of legs much same light with 3 to 4 bay spots (look almost maroon to naked eye) on tops of joints. Under parts whitish with conspicuous bay fleck, double on mid line of each last 3 somites except last, and one on each basis, several smaller on under side of coxae and meri. Fingers seal brown, darker in middle, lighter proximal and distally, tip whitish. Corneae seal to vandyck brown.

#33-30 July 26, 1930      Synalpheus #1

Of bluish cast thickly red speckled all over. Peduncles and basal third of ~~pedun~~ flagella bluish. Fingers and anterior part of chela deep blue Paris blue, rest of blue elsewhere sort of washed out china blue. Glands, eyes, and eggs between olive and bistre, with effect of blue of carapace and red spots giving it a sort of muddy greenish brown cast. Telson, tail fan, and pleopods blue 1/2 between fingers Paris and china blue. Also red spotted. More  
/distal parts of flagella transparent light gallstone yellow, legs palest transparent blue. Very thickly and closely spotted with red spots, about 6 of which would equal eye. Except rostrum and spines of front spots fewer and smaller on legs. Red spots between maroon and dark of carmine.

#33-30 July 26, 1924. Synalpheus #2

Can't see spines of front.



Eight red spots between eyes on forepart of carapace.

lemon  
yellow

area

Some very faint, scarcely perceptible red spots, about five pairs, on lemon yellow area. Lemon yellow goes back under dorsum of first two abdominal somites. Eggs same only paler and transparent. With slate eyes (#4 slate color) and few tiny red specks.

Anterior part of hand and fingers most delicate greenish blue; light part Nile blue; movable finger with corneous claw. Large chela fine red spots, distantly over top and sides. Otherwise, animal colorless, clear transparent.

Antennules with five red spots.

At base of telson and end of abdomen faintest greenish tinge light of glaucous green perhaps and few small red spots on telson and outer margins of uropods and about three across hinder margin of last two abdominal somites.

small chela five

Red spots are a dark scarlet vermillion, suggesting at first glance carmine.

Legs are red spotted, spots longer on carpus and propodus than merus, dactyl seems without. Second legs with single row of ~~2~~ equal sized medium sized spots, three or more, 2 distal and one proximal and one on each carpal joint.

July 26, 1930      Synalpheus #3 (plus #4 at bottom of page).

Colorless except least part anterior palm and fingers sepia.

Ovary empty, eggs large, pale, light end vinaceous cinnamon, eyes slate, rest of body and legs and all white colorless transparent.

One from Porites head, probably same, was a sort of chocolate or liver brown on anterior part of large chela in life and without glass. Color areas on large chela like #4, same dist., fingers look like #4.

#33-30      Synalpheus #4, 2 specimens

Quite colorless, glands in carapace wood brown, darker in front. Fingers and anterior part of chela pale ochre yellow overlaid with liver to hazel chromatophores. Area marked of large hand with retic. chromatophores of between hazel and liver brown. dots on top of small chela and both carpi and row along maxillipeds.

Legs maybe with few dots--taken from a dying specimen. Smaller specimen seems like larger, only lighter and less color where color is.

Sta. 33-30 July 26, 1926 ~~see~~ *(faint handwritten note)*

Xanthid

Fine short pile fawn color, tufts of long hairs cream color with tinge of straw color. Tubercles of carapace showing through are bay color, those on legs and chelipeds more lighter parts of maroon. Antennal flagella light parts burnt umber. Corneae greyish cream colored white, with retic. of bay lines, eyestalks white concealed by tuft of hair on upper side. Fingers tawny olive. Maxillipeds and mouthparts maroon X bay. Under parts, where not covered by short hairs, color of upper long ones, china white.

#11-30 July 26, 1930. Not out of Porites, but out of hole in old rotten coral lying in turtle grass.

China white spines and tubercles around bases of spines on edge of carapace and on house reticulations and rings of dark corner of rose purple, but dimmer, leaning toward heliotrop ~~ix~~ purple, but only slightly. Over back of carapace reticulations are ochraceous with darker reticulations in center and along posterior and postero-lateral margins, darker ones are between vinaceous-rufous and brick red, almost the latter. ~~xxx~~ Eyestalks china white with median dorsal stripe of the purple above noted. Corneae about #6 gray. Legs white spined and spotted marble with purplish tinged with the ~~xxx~~ ochraceous. Long hairs with purplish bases 1/4 and dirty white for greater part 3/4 on hinder half of carapace ~~xx~~ without colored bases.



#33-30 July 26, 1930 #1 Porcellanid

Porcellanid in color ~~px~~ mimicking red encrusting algae. Ground color cream buff.

Shaded inside dotted line  
red = (between maroon  
(purple & pomegranate  
(purple  
red darker, almost blackish,  
on cross hatch portions

dashed line = like legs and abdomen,  
only lighter.

Figure at center white and five  
sided.

*Abd. marked with.*

Teeth on carpus mostly ~~yx~~ white,  
less than half = almost tawny in  
appearance.

This is maxilliped.

*plumose,*  
Antennal flagella ~~verditer~~ blue with almost  
a blackish mark on padlike portion.  
Peduncle from above showing two lines  
of brownish much like on legs and abdomen =  
burnt sienna, sometimes looks like  
blackish <sup>part, other times</sup> near maroon or bay, but appar-  
ently with slight orange? cast.

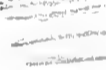
Legs.

Antennular flagella gallstone  
yellow, hairs on tip of antennae same.  
Peduncle washed out pale blue of ant.  
flagella, I guess.

Chelae and carpi of chelipeds thick  
spotted, almost might say mottled with ...

*Porcellanid*

#33-30 July 26, 1930. / #2, Same species, no doubt, as #1, but more somber colored due to age?

Legs and chelae and abdomen marked much like in smaller crab but many more colored areas. Ground is whitish, other color like  on carapace, but more toward seal brown. <sup>n</sup>Max. ~~Maxillipeds~~ and antennules blue like in little crab with yellow hairs (mistook max. for antennae in that crab). Antennal peduncles grayish blackish like legs. Flagella like red purple of back. Eggs look chocolate, but may be tinged with a little of the purple, but if so only slightly.

In same bottle three little ones colored intermediate between this large one and #1. Also intermediate in markings, but have more red, like #1.

#34-30 July 27, 1930. Small Xanthid, Micropanope, caught out of burrow in 7-8 ft. water inside bend of north point, west side Loggerhead Key, after 15 min. watch at mouth of burrow.

General color a greenish gray sand color, perhaps #10 grey or more a dull whiter color, mottled and intermixed with light cream and olive buff and some slight touches of faint chromium green, with some specklings of latter and more, but still quite scattered, of seal ~~brown~~ or clove brown. (Pepper and salt of a greenish cast.) Frontal margin and antero-lateral teeth white. Antennal flagella, eye and eyestalk, legs, and chelae colored like carapace. Fingers clove to seal brown, quite blackish for greater part, ~~blackish~~ becoming lighter, sort of wood brown, toward extreme tips. Sternum and abdomen olive buff to pea green, maxillipeds with some longitudinal linings of... Outer face of hands with conspicuous spots of clove brown. Smaller spots of same color on under sides of legs.

July 28, 1930. ♂ Out of Dr. Graves live <sup>Car.</sup> ~~cage~~. Palaemon without eggs quite transparent. Male with both chelae/quite transparent, fingers with opaque white splotches and also out end of hand.

Few small white speckings on scales and perhaps one tiny one on each joint of legs, at articulations of chelipeds and top and sides of ant. part of carapace, particularly over stomach region.

Bases of pleopods marked ~~xx~~ by white spot.

Eyes and eyestalk striped with ~~xxxx~~ burnt umber and grey white.

Rost. more and little area behind it in same line and between eyes - tawny olive.

Stomach and ant. to it to base of eyes tinged with palest oil green.

4 figures + notes

July 28, 1930. ♀ Palaemon out of Dr. Graves' live car.

Marked with white speckings like male, with, in addition, five or six white spots, rather large, on ~~xx~~ abdominal epimera.

Chitin in this spec. ♀ showing on edges and in looking down on edges of plates like epimera from above, a pale transparent paler raw sienna (I would call it amber, but the sienna is nearest it in book if it were ~~xxxxxx~~ transparent).

Few short oblique reddish bars on side of carapace above legs and ~~coax~~, basis, and prox. third of merus reddish or brownish. Did not notice this color in living animal, but as soon as I added a little alcohol to kill it, it showed up very plainly. Also there was a little brownish bar across fingers where white showed ~~xx~~ in life.

Review
 July 29 [1930]. Should be 30th collected by <sup>Wm.</sup>~~Dr.~~ Longley, <sup>Jr.</sup> From dead mollusk,  
 Ostrea? ~~Axyonaxianx~~ On alcyonarian.

Ovigerous female: Thickly red spotted Synalpheus with blue peduncles  
 and chela greenish toward tips. ~~Animal~~ Animal is purplish looking at  
 little distance, with bluish green fingered large chela. Eggs dark green =  
 parrot green.

Male: Lighter, much finer, less conspicuous red spots; small chela,  
 fingers greenish, and legs pale bluish, peduncles and large chela greenish =  
 pale transparent apple green, darker toward articulation. Body has almost  
 a light yellowish cast due to stomach gland = light ochre yellow.

Little white amphipod cerise eyed.

Palaemon tenuicornis (= July 29) in same bottle (now bottled separately)  
 collected by young Mills from gulf weed = gulf weed color. Tail and rostrum  
 darker than rest of body.

#35-30, July 29, 1930. Munida like before.

Legs all more or less a sort of pale vinaceous pink, particularly propodi and dactyli. Other ~~joint~~ joints more fuzzy on sides and consequently more greyish due to attached mist of mud particles.

#35-30 July 29, 1930

Chelipeds and carapace with numerous ~~large~~ subequal but irregular vermillion spots with ~~some~~ some finer speckings interspersed. ~~The~~  
Though <sup>with a</sup> all largely cream to pale #10 gray on dorsum of carapace, after this has been brushed; otherwise crab is rather dull grey muddy color like bottom due to mud particles adherent to ~~fuzz~~ fuzz covering crab. Legs very muddy fuzz covered meri particularly and carpi somewhat marked on upper surface with faint yet not un plentiful spots of what ~~ax~~ may well be pale vermillion, but which looks something like darker parts of salmon, or maybe a washed out rufous.

Fingers good deep bay color, lighter toward extreme tips, which are whitish but not ~~white~~ white.

Red spots carried over to under side of front and orbital region and on to tip of pterygostomian region, epistome, and outer distal angle of merus of maxilliped.



#35-30 July ~~28~~ 29, 1930 Parthenopid

Dirty, muddy grey with faint traces of brownish; legs marked

brown, dark, darker and lighter

shades of a vinaceous rufous  
that has leanings toward vinaceous

7-29

Claw fuzzy grey mud color

#37-30 July 31, 1930 Glyphocrangon, n. sp.

Pale olive buff with eminences of dorsum colored and tinged with flame scarlet, except dorsal ridges behind cervical groove and first lateral pair of rostral spines of which nearest margin is tinged with color, as is last epimeral spine, next to last with quite a touch of color on tips, rostral tip with pale color and its surface anterior to first spines tinged with color. Telson like rostrum and hinder margins of uropods with red. Epimera otherwise without red, ditto for antennal scales, though flagella are tinged with color and anterior marginal spines of carapace suffused with red tips well colored. Only ~~anterior~~ anterior of lateral pair faintly colored. Eyes dark bay.

Under parts without color pale olive buff last 2 pairs of legs with distal 1/5 of propodus and dactyl with the pale reddish, 3 pair <sup>of</sup> 2/3 propodus and dactyl 2nd pr. fingers of chelae palest red. Max. of last 2 joints and distal half of under parts of 3 to end joints well suffused with the red, spines much lighter colored, almost colorless, 1st legs about same, last three joints colored. Eggs verdigris green. Distal half of last pleopods ] with faintest fringe of red.

#37-30 July 31, 1930

Bathynomus  $9\frac{1}{2}$  inches.

Color grading from a dark ecru (perhaps darkened by ~~mix~~ addition of heliotrope? it tends somewhat that way) on first somite to a #15 plumbeous on telson. Uropods and legs almost vinaceous (lilac) if there were such a color. Margins and ~~hind~~ hinder edges of all somites quite light olive buff and lighter; spines on hinder margin of telson almost white. (When on deck most of these Bathynomus struck me as having a ~~mix~~ brownish rather than lilac ~~xx~~ cast, though one here described had \_\_\_\_\_ fawn or hazel mixed in.)

2, 3, & 4 epimera on either side olive buff, both margins of suture lines whitish, ditto margins.

4 epimeron with spot color of uropods, becoming more washed out on upper and hinder margins.

Eyes blackish slate #3.

Epimera below same color as above, but a shade lighter. Marsupial plates like 2, 3, and 4 epimera. Uropods & branchiae, chestnut.

Dactyli quite light, distal third whitish or pale olive buff, dark bay or clove brown claw rather the black parts of chestnut; cutting edges of mandibles ~~xx~~ showing more of the black chestnut color than blackish alone. Antennae and antennules, peduncles, and flagella like legs and somites of middle of back.


#37-30 July 31, 1930. *Nephropsis aculeata*.

All flagella, distal third of fingers of major chela under hair. Whole finger of second (minor) chela and distal third of propodi and whole of dactyl of next three legs bright scarlet vermillion. Remainder of legs white. Carpi and hands of first large chelipeds palest buff, dorsum of abdomen

and dorsum of carapace behind cervical groove largely same. All epimeral region dirty china white. Before cervical groove slight tinge of olive buff on sides of carapace.

lining = salmon color with suggestion of the lighter parts of saturn red.

flesh color with dash of rose pink in it.

Dorsal ridge of abdominal somites and lateral margins separating dorsum from epimera china white, as are also margins of epimera and articulating surface of  area between 1st abdominal somite and carapace. Under parts white with dash of olive ~~buff~~ buff in it. Anal lips red of legs.

#37-30, July 31, 1930 <sup>cl</sup> Small ~~pen~~ peneids.

Red sort of scarlet vermilion but yet of a darkness making one think carmine had something to do with it. Legs and margins of ~~abdomen~~ abd. somite and peduncles and flagella not scales except a thin line on upper surface of spine. Eye black, in front of stalk above irridescent beryl green. Rostrum white.

Three large peneids like little ones. Carapace finely specked with red chromatophores, also rostrum, particularly in shaded areas shown. Flagella light pale reddish, carapace about 7 with 7 greenish cast.

#37-30 July 31, 1930 Munidopsis.

Largely a deep orange buff with salmon leanings. Eggs buff. Rostrum, orbital margins except spine and spine at outer angle of carapace white (dull pure china white). Upper somites of abd. including three spined ones ditto ~~with~~ with distal third of spines white (first one only extreme tip is white) and

areas on articulating surfaces white as indicated and a white area either side of third spine on dorsum of that somite.

Legs white

except orange

spot on upper outer side of each merus and a little collar near hinder margin of carpus only.

5th legs with just a median dorsal fleck on upper side of third joint, last long one.

#37-30 July 31, 1930. Munida with 3 subequal rostral spines=Munida  
longipes A. M.-Edw.

Legs barred with vermillion, all meri including chelipeds with distal  
1/6 red and 4th seventh from <sup>proximal</sup> proxed end with basal inner spine and fourth one ~~a~~  
Carpi  
above it red. Rest white. ~~Carpi~~ white except those of chelipeds, which  
have faintest touches of color off. prox. spine on dorsal surface and on  
distal margin, but not spines there.

Propodi with middle half red vermillion of chelipeds. Merus of 5th  
legs with tiny inconspicuous spot of abd. color at midpoint of upper edge  
and at apex of distal margin, eyes irridescent, metallic black with coffee  
colored play of colors. Under parts china white. ~~This fainter colored~~  
distal third is due to strongly marked red spot on under side of palm showing  
through, it stops about a mm. or  $1\frac{1}{2}$  mm. short of base of gape of fingers.

Distal third of palm faintly colored, stronger color on inner margin and the  
two spines on inner margin of that distal third. Dactyli white on 4th  
legs, on 3rd distal  $\frac{3}{5}$  red. On chelipeds fingers for basal  $\frac{2}{3}$  faintly wine  
purple, those of left chela almost white, middle third of palm with faintest  
(us)ffusion of the purple. Carapace largely pinkish buff, darker anteriorly  
there is a suggestion of salmon buff to the color basal half of 3 subequal  
frontal spines light orange ochraceous to ochraceous, distal half white,  
abdomen with four faint lines of mottlings of same color corresponding  
about with rows of spines, spines and between areas white, color goes back  
to big pair of spines. This fainter colored distal third is due to strongly  
marked ~~red~~ red spot on under side of palm showing through, it stops about  
a mm. or  $1\frac{1}{2}$  mm. short of base of gape of fingers.

*Nothing  
seen*

#37-30 July 31, 1930.

*Check not presented  
May 1930 - 1931*



#37-30 July 31, 1930. *Munida decora* Benedict

Granulated striae. First 2 immediately succeeding cervical groove red.  
 (Second of these ~~is~~ much broken in short pieces.) Then a deep groove and two  
~~two rows of~~ red continuous rows behind it, then no particular color until  
 ? posterior?  
 post. margin of carapace when three narrow rows of red mark posterior boundary.

Eyes black of bay. Little eminences before, between, and either side of  
 gastric spines red, but more spotted and not so dark as rows defining post  
 posterior?  
 margin and cervical groove. Tip of ~~rostrum~~ rostrum red. Other rows salmon  
 color. Of spines on hand 2 rows on upper surface show salmon color, as  
 does tip of movable finger. Line of salmon granules on each of first two  
 abdominal somites, 2nd has spines, also color; it (colored row) is near  
 posterior margin. 3d sec. has 3 rows colored.

#37-30 July 31, 1930 Cymopolia

Three largest, carapaces largely sort of salmon to flesh color around margins and frontal regions and antennae, pale vinaceous buff across median regions between <sup>07</sup> tubercles with mottlings of <sup>7</sup> reddish salmon (like dark of peach blossom pink).

<sup>70</sup> Legs china white, semi translucent with ochraceous tiny spottings not very noticeable though plain. Distal ends of meri and paler and to lesser extent distal and proximal margins of carpi of walking legs with touch of buff. Eyes with little color, stalk like front, grey with blackish center and tinge of buff cream, buff above. Eggs deep Saturn red with suggestion of scarlet vermillion. <sup>8</sup> Next two in point of size (but one perhaps) similar reddish and salmon tints more subdued, brown markings on legs of one more conspicuous, eggs same as above.

Juvenile female, male and one ovig. female. Much paler on carapace, more a cream buff or pinkish buff, quite white around edges particularly laterally, <sup>9</sup> markings on legs subdued.

#37-30 July 31, 1930 Cymopolis

#38-30 July 31, 1930 Pasiphea, quite colorless.

Legs and pleopods with line of red dots on under side, outer margin of paddles of pleopods, hinder of their stalks, fingers of chelipeds quite red. (Red here = scarlet vermillion with leanings toward crimson.) Movable redder than fixed because individual spots are more numerous, larger, and closer together. Carapace and abdomen with faint spottings of small (minute) red chromatophores, larger toward hinder margin of carapace and epimeral portions over branchiae and over pleopods in abdomen.

Narrow under side of last abdominal somite red spotted and dorsum of

last three, just in hinder part of fourth throughout length of fifth stronger almost solid at hinder end and ditto for 6th. Dorsum of telson completely red spotted. Most of inner ~~hand~~ branch of uropod and inner part of tip of outer branch. Peduncles and flagella red spotted. Ant. scales free of all ~~xxxx~~ spots, ditto eyestalk. Antennular flagella redder than antennal.

#38-30 July 31, 1930.

Finely reddish spotted throughout. Across dorsum of fourth somite

extending to within a third of epimeral height of epimera to epimeron = brownish area = light orange rufous if this were spotted. Stippled, mixed with red ~~spots~~ <sup>spots</sup> looks darker than described color (vinaceous rufous) in book. Eyes #3 blackish slate.

Thicker of antennular flagella reddish ~~stippled~~ <sup>stippled,</sup> darker just before and after white area, about so long — One inch out from peduncle; thinner flagellum more faintly (sparsely) red stippled, looks nearly or about white. Ditto for scales and peduncles and ant. flagella. Long legs white (only 2 left on specimen). Third max. mostly deep solid red for greater part of penultimate joint, distal third of this joint like distal third of outer penultimate paler stippled with red to pinkish tone, basal 2/3 of dactyl ditto, distal third of dactyl and basal two-thirds antepenultimate joint whitish. Fourth and fifth epimera of ~~ant~~ abdomen with fleeting brownish areas like second but smaller. Sixth somite on sides near bottom and behind faintly outlined with brownish; telson with median pt. red, spines like close set movable spines on rostrum, as is short ridge behind them = chitin yellow = trans. gallstone yellow. Peduncles of pelopods faintly yellow ~~with this top~~ <sup>with this top</sup> and ambulatory dactyls this color. running up behind abdominal epimera seem to give them nuances of yellow, likewise blades of pleopods red spotted more closely so distally giving them there a reddish look, proximally tinged with palest yellow. Distal outer and distal margins of uropods more thickly spotted than rest of blades.

Rostrum more or less colorless, basal half except last two or three spines just before those on carapace somewhat opaque white, distal faintly spotted with fine red speckings.

#38-30 July 31, 1930 Larger Nematocarcinus much like smaller

Carapace lighter than in smaller  
practically no or little color.

Rostrum as in smaller specimen, teeth  
on carapace with solid red line,  
median, on each side.

Legs with darker bar of red about  $3/16$  inch wide,  $3/4$  inch from articulation with carpus. (Red is more or less scarlet vermillion with dash of crimson in this and smaller specimen.) Ambulatory dactyls yellowish to pinkish,  $1/4$ " bar of red within  $1/16$  inch of end of merus of first leg to correspond with  $1/4$  inch wide red band next to articulation of corresponding joint of max. 2nd legs with *band* at same place; proximal half jointed carpus red and 4th, 5th, and 6th joints of articulated carpus from distal end red, chela all white. Terminal distal  $1/7$  of 1st leg bright trans. red.

#38-30 July 31, 1930. Peneid.

Largely reddish all over, more or less close stippling. Red—more or less vermillion leaning toward ~~sp~~ poppy red.

Areas marked red are darker. Anterior half of abdominal somites whitish, all epimera darker than, hinder half of dorsa. Telson and tail fan darker like rostrum. This two the darker of all together with penultimate and antepenultimate joints of third max. distal joint lighter more pinkish. Upper margins of rostral teeth, as basal half of hairs fringing outer branch of uropods, light ochre yellow. On last three abdominal somites median ridge quite red with almost a yellow tinge in lateral view.

Ant. 2 flagellum  $29\frac{1}{2}$  inches long. Basal inch or two of antennal flagella pinkish, peduncles and basal half scale quite reddish. Stalks of pleopods redder on outer face and <sup>blades</sup> blacker redder distally. Eyes shiny, almost iridescent, Paris blue. Ant. margin of carapace white.

#38-30

Peneid #2 like large one with  $29\frac{1}{2}$  inch ant. flagellum, much like colored in all particulars. Less red on carapace, only on sides above line marking off membrane. Rostral teeth except last three whitish tip darker red tinged with the ochre yellow tail fan lighter but as in other large specimen. Eye like other large specimen, separately color noted. Like rostral teeth is color of dorsal ridge on last 3 abd. somites.

*Look at copy, Vol.*



#38-30 July 31, 1930. Geryon

General color cream buff. Tips frontal and antero-lateral spines =  
dark colored, approaching russet. Inner margin of orbit = ochraceous buff.  
Antennal flagella ditto.

#38-30 July 31, 1930. Two hermits in shells.

Large chela and carpus, margins of former and tubercles of latter whiter cream with tinge, or suggestion, of buff yellow, faint margining of ochre <sup>just</sup> yellow/behind anterior margin of carpus in middle \* half of margin, tips of fingers of both chela<sup>2</sup> with slight flushing of light ochraceous buff. Legs and small cheliped quite white, distal  $2/5$  of dactyls of ambulatories and distal  $1\frac{1}{2}$  mm. of each joint of ambulatories on outer and upper sides (completely around propodus) = cadmium orange. Merus has little of this orange proximally on outside, nothing on ischium.

\*and ant. margin of merus except white teeth.

Antennal flagella and peduncles and ant. scale light buff, faded out spot of cadmium orange just below ant. scale. Eye scales cream color with median part tinged with ochraceous buff. Two little anemones have dropped off one of the shells.

#38-30 July 31, 1930.

Some of Glyphocrangons have max. and first legs quite burnt carmine to lake red in color.

One out of these five.

See color note on larger specimen taken at #37-30.

#38-30 July 31, 1930 Medium sized peneid, bottled with large #2 specimen.

Has no dorsal ridge on abdomen. Eye translucent with color play of Nile blue. Rostrum and ~~carap.~~ carap. and hinder margin of 6th and anterior and hinder margins of first somite not epimera darker, and all points of articulation of somites of abdomen and of pleopods with abdomen and outer margins of blades of ~~pe~~ pleopods and their ~~articulations~~ articulations with stalks marked with red.

#38-30 July 31, 1930

Marked not unlike medium sized shrimp, rostrum redder, tip white. Lower margin of carapace except membrane of edge and ant. spine of lower border, pleopod and ridge on last 4 abdominal somites quite red.

Antennules proximal margin of basal joint outer side of distal joint flagella quite red. This belongs to medium sized specimen.

Third max. and first pair of chelipeds deepest red scarlet vermillion. Hinder parts and dorsum of carapace behind cervical groove tinged with very pale olive green. Eye quite black, black of berlin blue. Teeth of rostrum except last white four quite a dark red. Red of teeth little tinged with ochre yellow. Middle half of rostrum darker than rest of carapace. Eyestalks quite a reddish pink. Distal half antennular flagella quite red. Pleopods reddish with whitish area at distal half of outer edge of stubs and last third of outer margin of blade.

#39-30 Aug. 3, 1930. Five little crabs from coral collected for Dr. Vaughan from reef outside "five foot channel" between Bush and Bird Key Reefs.

Capt. Mills with hood.

Vinaceous buff and vinaceous-cinnamon mottled, with perhaps very few touches of pinkish vinaceous. Spines on carapace and chelipeds, and fine ~~youvhd og pinkish binsvroud. Dpinrd on vstpsvr env vhrliprfd, snf gnr~~ spinules on legs, black of bay with two or three half ~~high~~ ~~dpinulrd on lrhd, nlsvk og nsy eiyh yeo ot yhrtr hslg high~~ high spines on upper surface of palm and four of [or?] five somewhat smaller ones on top of carpus and 2 or three upper and near anterior end ~~af~~ on merus opaque dull china white. Also clump of finer spines white between the larger black ones on front and the black large supra orbitals finer spines at base of eyestalk also white. Lateral spines and those on branchial region also black bay. Carapace with about eleven bay spots indicated by circles in diagram. Antennules seal brown, under hairs of thicker flagellum white, narrow white hand marking articulations and narrow white hand across middle of basal joint. Eye-stalks largely white above due to broad white longitudinal band, spot of vinaceous at inner angle by cornea.

Middle half of dactyls of walking legs with band of dull scarlet, proximally white tinged very slightly with red distally, claw white with palely light ~~con~~reous tip edged near extreme end with bistre, rest of leg joints largely ochraceous with same whitish mottlings.

#39-30 Aug. 3, 1930. Five little crabs, etc. CONTINUED

Female with more of an olive buff cast to much the same coloration as male. Abdomen looks hair brown, due to black-eyed eggs of same color.

Next to smallest like female, with small olive yellow spots over top of carapace, fingers much paler, no purple color.

Smallest of four specimens much lighter, fine black speckings or tiny spinules over most of carapace. Legs alternately reddish and white banded throughout, spinules showing in red bands, almost blackish red, red, pale scarlet vermillion. Chelae like female or next larger but very palely colored.

#39-30 August 3, 1930 Capt. Mills with hood, from reef outside "5 ft. channel" between Bush and Bird Key reefs.

Microphrys-like, covered with matted dirty, tangled hair, perhaps like the dark thick end of Isabella color (near Prouts brown?), sort of mud color. Eminences of carapace showing through (not at all noticeably) with sort of a light cinnamon, in deeper depressions of carapace irregular spot of dark maroon. Chelipeds a prune to pansy purple with perhaps a suggestion of maroon, a mere suggestion only. Whitish salted with tiny irregular fleck of almost white, fingers nearly white with a flush of orange ochraceous about middle half both proximally and distally, lighter white with suggestion of pinkish buff, sort of cream color at little distance and without gloss.

Triangular ant. plate of sternum purple

like chela with larger whitish spots.

Rest of under parts hairy dirty like

dorsum of carapace.



#39-30 Gebia, ovig. female, opaque dull china white. (Male on separate sheet.)

From reef outside "five foot channel" between Bush and Birk Key Reefs.

Capt. Mills with hood.

Right chela distally quite orange, proximally becoming lighter toward middle; in fact most of it is quite like Indian yellow with the fine reddish specks it shows in the book. ~~Oxi~~ Oblique fringe of hairs white top half of ~~max~~ carpus faintly yellow with dark specks that may be red. Rest of leg quite white but still with faintest kind of a suggestion of yellow. Fingers darker, more reddish, due perhaps to more specking, approach cadmium orange in color. Dactyl and distal half propodus of second legs like chela. Rest of leg quite white. Eggs orpiment orange, eyes black of clove brown. Bushy growth on back speckled like Indian yellow but leaning strongly toward lemon yellow.

#39-30 Aug. 3, 1930. Male Upogebia operculata.

Chelae closely reticulated with orange ochraceous so that they almost look perhaps orpiment orange or a cross between it and orange ochraceous (as I described female--orpiment orange in sort of half light before sunset Aug. 3.) Lower surface of chelae whitish and only upper surface of carpi colored (as was case in female). Abdomen and whitish sides and part of carapace with faintest kind of suggestion of pea green. Round opercular portion of abdomen and legs dead, dull, almost plaster of paris white. Fingers with less color than female seemed to have. (Lower finger looks sort of clay color.) Female, chelae are about as originally described, good dark orange that runs out onto fingers which are just as dark. Male fingers are much lighter

#39-30 Aug. 3, 1930. Male Upogebia operculata - CONTINUED

and with only a little bit of color. In female chela yellow is on bottom as well as top, though may be a little lighter below. Male had both ~~large~~ chelae, female only seemed to have the one.

#39-30 Aug. 3, 1930. Little green claw Synalpheus without eggs--male? In vial with Gebias.

Large chela bottle green on upper edge and partly on outer lower face, and shading (fading) out to sort of apple or oil green on inner face.

~~Flagella~~

Flagella, peduncles, and third max. sort of sage green. Eyes black, body well spotted with crimson all over, including fore upper edges of legs. Greater part of carapace except posterior third more or less pale transparent hair brown, tending to conceal a mask of red coloration which shows very plainly on posterior third indicated in sketch. (These colors of a dead, but presumably not long dead, synalpheid.)

#39-30. Aug. 3, 1930.

Squilla bright apple green, darker almost or about oil green on margins and eminences of telson, because chitin is thicker at those places. Body, eyestalks, and all with little whitish specks all over. Uropods becoming olive yellow.

Legs citron yellow X gamboge yellow.

Scale like legs, flagella yellow like legs, too.

This joint and spine distally with touch of turquoise blue inside showing through, same is true of rostral spine.

Hairs of uropods dead white.

Outer black line ochraceous,  
inner light; core or cornea = fawn color.

green like body

#40-30 Collected by young Longley from turtle grass 1 small Mithrax and a little Pitho female.

Latter coral sand white on carapace with light olive reticulations, with tiny blacker spots of same along lines of reticulations. Corneae #5 slate grey, speckled with white (little crystalline looking spots of white). Eyestalks white with line of broccoli brown on median line of upper surface. Chelae, particularly, and legs with an intermediate color between that of chelae and carapace reticulated with a bice green.

Little Mithrax of ~~the~~ this #40-30. Carapace white reticulated chromium green. Legs alternate bars of white and white reticulated with drab. Chelipeds, whole chelipeds chromium green finely speckled with darker of same.

#41-30 August 4, 1930 Mithrax

Medium sized one mostly chestnut, hazel, and cinnamon shades. ~~Chelae~~  
Chelae same, lighter distally, white specked fingers on cutting edges and somewhat toward extreme white tips with slight flushing of pale solferino.

Smallest one, dark bottle green, bice and sage green. Chelae between parrot and bice green. Last mm. or two to tip of fingers china white.

Largest one, sort of raw sienna with greenish cast as though some olive buff were mixed in. Chelae tawny ochraceous, whitish specked, tips white with little touch of solferino flush before white tips.

Sandy pea to sage green, specked somewhat with the dark of near bluish of bottle green. ~~Hard~~ one like this from burrow on July 27, 1930, #34-30. Fingers dark clove brown, little whitish at extreme end of cupped part. Eggs black of bottle green (black olive with greenish cast).

#41-30 Aug. 4, 1930. Larger soft Squilla in bottle with one from #39-30..

? recently shed Pseudosquilla I found pieces of cast shell in debris in bowl into which I put cracked ~~rocks~~ rock frags., on one was telson, there was no mistake about the identity of "shell" exuvia.

Much mottled and spotted (generally light in appearance, dark almost black green spots; pale sage green and some chromium green especially on last abdominal somite and telson.

#42-30. Female spider crab. Aug. 4, 1930

Sponge beneath ascidian raw umber. Ascidian is deep almost black Indian purple, with white speckled (whitish here is a pale lavender). Basal joints of legs and chelipeds at first glance suggest ~~urx~~ rufous, but one much brighter more chinese orange after all, make ring of bright colored spots around edge of abdomen. Legs of crab and chelipeds very fuzzy of the black end of bistre. Maxillipeds and most of under side of rostral region around antennae and antennular orbits more a tawny ochraceous ~~showing~~ showing through the fuzz like that of legs, but ever so much thinner here, letting color show through. Basal half of fingers #5 slate grey next more distal quarter sort of vinaceous rufous shading into the white terminal mm. of tips. Teeth of cutting edges also china white, dactyls with slate cast to basal half, more distal quarter color of fuzz on legs, terminal mm. corneous of raw sienna color.

Aug. 5, 1930. a.m. Long Key coll. by young Longley along with 1/4 pail of  
Cenobites.

Sesarma.

Carapace generally liver brown to  
brick red. Five light spots = cream within  
dotted areas. The whitish parts of  
wood brown X whitish parts Isabella color  
from the same and margin all around  
carapace ditto.

Legs more or less mottled, more barred on propodus, and finely specked all over  
light bistre on generally light of wood brown ground; rather more greyish  
hair brown tinged beneath, more or less light clay color. Under parts like  
under side of legs anteriorly with faint flushing of pinkish vinaceous.



#43-30. Aug. 5, 1930. Medium specimen. Smaller with spined chela.

Gland space in abdomen only running through third, orange ochraceous color. General color of chitin a milky buff yellow or the whiter parts of orange ochraceous. Carapace the same, little darker anteriorly. Large chela along top and ~~anterior~~ ant. margin top of movable finger and cutting edge of fixed finger pale ochraceous; along top and front edged carpus and distal upper third of outside of merus, ischium white. All joints of legs tinged with yellow and <sup>with</sup> ~~which~~ ischia white. Antennal flagella with roughly every sixth ring crimson, antennular flagella with about every third or fourth red with perhaps a little fleck of red on upper surface ~~xx~~ between rings in some cases. Eyestalks red spotted and pale long red bar (of tiny spots) on distal joint of peduncles, eyes clove brown with little reddish tinge?

#43-30 Aug. 5, 1930.

Smaller specimen with unspined larger claw. Largely dead white with yellow (= a "deep chrome" with milky look due to superimposed white shell (chitin)) glandular space in 1st, broadest in second, and tapering in third off to nothing in fourth. Large chela from upper margin down a fourth of the way outside also merus a pale rose purple, color almost over outside face of carpus, upper third of inner face of joints lighter less red more a lilac. Anterior <sup>margin</sup> ~~margin~~ of carapace also a pale rose purple. Movable finger colored; fixed white, ~~xx~~ though with a sort of lilac tinge in large chela. Walking ~~legs also dull white~~ legs also dull white, perhaps with faintest suggestion of the rose purple, or is it imagination. Peduncles, flagella, and eye stalks, pure white, eyes clove brown.

#43-30 August 5, 1930.

Brown edgings of chelipeds of larger spined hand Callianassa larger,  
but spines in both specimens are white. Colors like smaller specimen .

? Except <sup>?</sup> ant. darker, not the brown but a sort of light wood brown. Distal  
half of ~~anterior~~ spines white.

#43-40 Aug. 5, 1930 Small Squilla

Whitish sand speckled with chrome, yellow alimentary tract runs through center line throughout. Eyes and eye segment perhaps clay color, ~~with~~ made lighter by fine white specks. Little suggestion of buff toward epimeral margins except on carapace, which laterally is clear transparent.

Ant. central part of carapace with little touch of ochre yellow, diffused true enough, but giving in dotted area merest suggestion of golden color.

fig

About Aug. 5, 1930. Seined at Long Key seining beach. Portunus ordwayi?

Carapace largely chestnut with lighter stippling and some small grayish splotches, distal mm. and a half of frontal teeth, including inner orbitals, cinereous with white margins. Light margin of orbit except for inner orbital tooth light hazel or vinaceous cinnamon. Antero-lateral teeth ~~XXXXXXXXXX~~ ~~XXXXXXXXXX~~ with touches of claret brown.

2nd & 3rd ambulatory legs hazel X dragons blood red. 1st ambulatories more dragon's blood red. Chelipeds with slaty nuances (#6 gray) over chestnut. Ant. of merus with carpus, and carpal spines ringed ~~with~~ proximally with a deep red (? crimson of) <sup>maroon purple distally with a prune purple density,</sup> sort of rufous X chinese orange red, reddish flushed (tinged) white between.

Depressed patch on outer oblique face of chela below upper ridge and first of outer highly irridescant (brilliant irridescant green from one angle, at another brilliant irridescant solferino; on a slope at times just a dull heliotrope, <sup>or at times aster purple</sup> with what looks like little dull, deep dark red spines sticking up inside.

Upper movable finger, spines on edge of merus mostly white with 4+6 red base. Fixed finger like movable, except, 4, 5, and 6 all dense purple red color. Hairs on fore edge of merus deep flesh color, spines on hande white banded, and extreme tip white between two whites, narrow rufous band.

Inside face of hand <sup>white</sup> which, merus where lapped by ~~gap~~ carapace, white of a very pale pinkish buff tone. Hairs on hinder edge of merus, carapace, and paddle limbs white.

About Aug. 5, 1930. Portunus ordwayi? CONTINUED

Paddles more or less transparent, translucent, white tinged and rimmed with pale raw <sup>sienna.</sup> ~~sineea~~. This corner of penultimate joint much like paddle, other joints much like ambulatory legs which are lightest in dactyls and darkest in meral joints. Dactyls distal half and all of lower margin orange rufous.

On side of carapace about 2 mm. from edge *between* 2nd & 3rd ambulatory legs a deep white indentation white center with plumbeous ring around sides.

Articulating membrane ? of first joint of paddle limb with carapace as viewed from above light pearl blue with couple of dark red (pansy purple) spots.

Antennules light white grey, #20 pearl grey.

Under parts light vinaceous (at first ~~glance~~ glance said to myself dark salmon) with rufous membrane where legs articulate with sternum.

~~Paddles more or~~

August 5, 1930. Collected along shore of Long Key near seining beach by Bullington. *Portunus depressifrons*.

Of paddle legs last two joints "pale blue."

4th legs dactyl

3d. leg dactyls & propodus

2nd leg dactyl & propodus

Tips of dactyls except first ~~xxxx~~ ambulatories = 2nd leg, distal 1/4 with touch of salmon. Extreme tips of all dactyls light gallstone yellow corneous.

Hairs ~~xx~~ on first ambulatory auricula purple from a larger specimen which lacks chocolate strip down middle. \_\_\_\_\_ of carapace more or less symmetrically mottled washed out pale blue, all over color like Bull. 152 or vinaceous pink; first ambulatory dactyl quite prune purple, purple margined and tipped except extreme yellow tip with flush of vinaceous in transition zone.

Teeth of fingers dahlia purple and spine and eminence carrying it, at articulation of movable finger on outer face of hand bright rich purple. Inside ~~xxxxxxx~~ articulation also purple and most of distal half of fixed finger. Almost entire lower edge or kante of this finger purple. Basal half beginning from end of purple toward \_\_\_\_\_ flushed with ~~xxx~~ china blue getting lighter on palm, hairs on upper edge of movable finger light wine purple but looks almost faded out.

Back brownish sand color with some rufous markings (clay cinnamon and cream buff) principally a streak ? from ~~xxxx~~ within 3/16 inch of front to 1/4 inch of back about 1 1/2 mm. wide.

August 5, 1930. *Callinectes ornatus* (*ordwayi*) of seine haul, Bush Key - Long Key seining ground.

Colors much as described for one in Bull. 152 except distal half of marginal teeth are white for distal half, orbital and frontal margins and margins of orbital fissures white, suborbital teeth white above, abdomen as seen in dorsal view white.

Paddle limbs look quite strikingly barred in male.

Dactyls of ambulatories largely <sup>(I would say 1931 orange rufous)</sup> cinnamon rufous marginally and distal half centrally and proximal half tinged with the blue, fringing hairs below propodus and dactyl light clay color (dirty color).

Female, legs and chelae much lighter more white, hind legs more white than barred, quite blue near articulation more blue and less area than in male. Distal half of paddle reddish carmine tinged, inside of base of fingers flush ~~off~~ of prune purple have the blue normally here. Carapace more light hair brown than sage green. Eggs hair brown.

Both crabs have <sup>white to whitish</sup> a line about a mm. wide from middle of front to middle

of intra medial area.

subfrontal tooth has white

tip and margins but rest of

its upper surface color of

~~xxx~~ carapace.

*fig*



August 5, 1930. Callinectes ornatus (ordwayi) - CONTINUED

Taken from little specimen! Didn't get color of fingers inside; inside of base is ? reddish purple while on outside is hair brown? Red brown on upper movable finger and blue on ventral shows ~~through~~ pale hair brown very slight toward base. Fingers are really as described all white on outside only. Dactyl has little hair brown near tip on outside near articulation.

Aug. 5, 1930. Tiny Callinectes collected along shore of Long Key near seining beach by Bullington.

Very light color, nothing distinctive about it. Very largely cream buff and wood brown and some small lighter ~~px~~ spottings of cream. Legs ditto with barring or banding of clear opaque white and bands of blackish dots. Dactyls also black specked but of an ochraceous color. Carpal joints of chelipeds darkest (darker parts of) wood brown color. Chela lighter than carpus with a transverse whitish patch behind articulation, fixed finger wholly china white, movable distal and second fourth white, basal fourth more blackish like leg bands, third fourth wood brown. Outer face of hand on to proximal third or fourth of fixed finger wood brown with blackish stippling. Margins of carapace fore and aft, distal third of all antero-lateral teeth, and distal half of long lateral spine white.

#44-30 Aug. 7, 1930. Dug from sand, seine ground, Long Key.

4 little Crangons sort of pale pea green. Sort of Mars brown? Alimentary tract in carapace, telson almost clear transparent, chelae sage to pea green, markings about white area quite dark along transverse edge against which dactyl closes. Tips of all movable fingers sort of pale salmon color.

Widest strip of color on movable finger of large hand.

Taken from little specimen. Didn't get ~~the~~ color of fingers inside;  
~~xxxxxxx~~ inside of base is ? reddish purple while on outside is hair brown?  
Red brown on upper movable finger and blue on ventral shows pale  
hair brown very slight toward base. Fingers are really as described all  
white on outside only. Dactyl<sup>1</sup> has little hair brown near tip on outside  
near articulation.

#44-30 Aug. 7, 1930 Dug from sand, seine ground, Long Key. Single Crangon.

Large chela largely tawny olive with light areas light whitish parts of fawn color, largely vinaceous with many small whitish markings of cream buff. Flagella, but not peduncles, very pale olive buff. Peduncles like body, scales lighter=more transparent. Legs likewise paler vinaceous buff, eyes a grey with almost a greenish cast with small black center. Eggs oil green. Epimeral regions and hinder third of carapace and branchial regions lighter, ditto distal half of last abdominal somite and telson.

#44-30 Aug. 7, 1930. Dug from sand, seine ground, Long Key.

Where circle is is not color, that  
is where pleopod is attached. Markings  
shown in outline buff, anterior corner  
pair larger, seem to begin at center  
line up in preceding segment

On either ~~side~~ edge of telson on its  
antero-lateral corner are black spots  
of

A black spot above insertion of  
uropods on upper surface of carapace. A suggestion of one very pale and  
scarcely noticeable [spot] above each pleopod, except that on second free  
thoracic somite is black. Pleopods and legs perfectly white, and few spots  
on antennae. Ocular segment and eye-peduncles show some cinnamon rufous color  
between or beneath opaque white spots. Ant. scales with one spot at articula-  
tion with ? . Corneae covered with opaque white spots and <sup>tiny</sup> central ~~max~~  
black one.

Body clear transparent, but with  
scattered white opaque spots, color  
markings except black spots are  
inside, black spots outside.

Carapace has 2 black spots on hinder  
third as shown, and one median one.  
Telson clear transparent except for  
opaque white spots where indicated and  
median buff double line.

#44-30 August 5, 1930 Shrimp from weed Visscher collected off Bird Key Reef.  
page

Two larges non-ovigerous, like this side of notes.

Abdomen striped, stripes a very light (pale?) transparent apple green with crimson spots along it, giving it at little distance a brownish look, sort of russet color. Eystalks have double row of red spots on top front surface, no other color, otherwise white. Stomach has a cinnamon rufous color on which silver white Y sits with red spots over it on shell of animal. In the specimen stomach is more a mummy brown and stripes look light olive to light bistre at little distance.

3, 4, 5 legs, dactyls seem to be without color. Carpi and propodi Indian to saffron yellow ~~yellow~~ red spotted appearing as in book, between carpus and body transparent and red spotted. Basal and coxal joint of last ambulatory quite a French blue. it seems.

3d. max. 2 distal joints = light end of Berlin blue (to a light end of hyacinth blue in other specimens) red spots over color and on more proximal colorless joints.

Thick part of bifurcate ant. flagellum thickly and densely red spotted. Both flagella of this part short and long quite red, crimson throughout.

Tail fan without stripes, seems quite without color. Uropods outlined with tiny red spots as in telson, which, in addition, has a median line little colored, alimentary tract and median line of red spots.

#44-30 Aug. 5, 1930 Shrimp from weed ... CONTINUED

There is a ~~tiny~~ tiny specimen, smallest of all, I ~~xix~~ didn't notice before, as was caught in surface film on next smallest brush of hair on antennules bright green = apple green, in fact antennules and max. too.

The smallest specimen of these four (non-ovig.) is quite transparent throughout, with scattering of tiny opaque white spots on legs as well, carapace largely opaque white above to crowding of spots in this place, as is upper side of eyestalk and line in extension of preceding across surface of eyeball, with underneath has a small spot of drab as core? of cornea. Chitin with palest kind of a flush of pea green, merest suggestion of this color, a ~~xx~~ slight peppering of tiny specks of darker color, as though color might be dark (near blackish) parts of sage green. Antennal flagella distal half very faint suggestion of crimson color. This specimen and tiniest one above have hind edge of uropods and tip of telson of opaque white with ? ? bar of white made up of two curves on basal joints of uropods. Red strip on eyestalk, tiny red bar on cornea and median stripe (all of red spots) down length of body.

Ovig. next to smallest specimen much like preceding; less opaque white and what there is is finer. Eyestalks with white stripe extending over ball to with either side of it on cornea a vinacious <sup>e</sup>cinnamon bar. Ant. part [of] carapace with inside organs a compact mass [of] olive color X Prouts brown with little hinder patch of olive above.

Abdomen behind where eggs show through quite transparent, no white flecks, and only very tiny inconspicuous dark one like above specimen. 1st, 2nd, and 3rd segments where eggs show through look hair brown when viewed from above, or drab? with spots (eye spots of eggs) color of darker parts of these colors showing through.

#44-30 Aug. 7, 1930 The Xanthid that was shoving rock to cover Callianassa hole.

Coral sandy mud color, legs barred with hair brown and lighter, carapace mottled with same and bice green and lighter shades. Eyes perhaps clay color.

Abdomen carries most striking color.

*Yucca...*





On label in  
bottle

#45-30.

Eyes black, line of carmine  
dots connecting ant. margin of ey  
single row of dots.

Body, peduncles and legs gamboge yellow, legs and small cheliped and ant.  
third of dorsum of carapace darker denser yellow, abd. lightest particularly  
on dorsum where articulating membranes are white. Greater central part of face  
of large chela that shows uppermost chrome yellow, in fact is so from any  
angle, margins where curvature and thickness show like body gamboge yellow.

Movable finger and small portion of fixed one  
bright smalt blue ant. part of chela at base of  
fixed finger and no blue on little chela,  
fingers look sort of hair brown, only faintly  
so herpaps toward tips due, I believe, to dirt in hairs. Flagella and scales  
without color. Alimentary tract in carapace shows little darkly through  
yellow, palely clay color, little olive on stomach?

Two larger specimens in same bottle eyes black, fingers of chela blue  
is ~~was~~ washed out (sort of pale indigo) deader when collect. on bottom  
screen. Smaller eyes side with two red bars about  
grey cornea is deep blue.

gamboge yellow like smallest of three in this bottle described above. Largest  
is more of an ochre yellow cast, though still unmistakably of the same kind  
as the other two.

*As this is  
light place  
it has in the*

*Small  
specimen*

*Which  
does this  
refer to?*



On label in  
bottle

#45-30.

Eyes black, line of carmine  
dots connecting ant. margin of eyes  
single row of dots.

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screen. Smaller eyes side with two red bars about  
grey cornea is deep blue.

gamboge yellow like smallest of three in this bottle described above. Largest  
is more of an ochre yellow cast, though still unmistakeably of the same kind  
as the other two.

*Dark  
thin red*

*What  
does this  
mean?*



on label in  
bottle

#45-30. Aug. 8, 1930.

2 citron yellow synalpheids with pink fingers, larger was well alive  
and swimming about dish when color noted.

bright peach blossom pink = transition color sort of flesh.

Everything yellow (~~over yellow~~) except flagella. Small chela shows no  
~~shows~~ color other than yellow unless extreme tip where not noticeable.  
Glands and stomach in carapace ~~xx~~ pale wood brown.

With amphipods was put much faded out yellow synalpheid which had  
double red line between eyes as above, but movable finger of large chela much  
faded at most pinkish buff, but mostly white above cutting edge.



#45-30 Aug. 8, 1930

Finely red spotted Synalpheid, legs too. Ground color (of chitin) little lighter than spots but together the whole color is a sort of faded out orange to vermillion to coral red. Ocular spines colorless, marked area on rostrum |||| = dark part of poppy red.

Rostrum proper chitin yellow (light ochre yellow perhaps) centrally only margins clear transparent colorless. Peduncles to a 50% degree like body by only half amount of color, flagella colorless, perhaps a little dusky. Eyes #3 blackish slate, fingers of chelipeds and distal parts of palm faded out oil green, dull, muddied by admixture of red spots on rest of chela, which, in turn, is a darker red than body because somewhat muddied by faintest tinge perhaps of green. Cutting edges of fingers yellow corneous, touch of light gallstone yellow.

Larger red synalpheid ovig. female in ~~xxx~~ same bottle without large claw same color only darker, white areas on red rostral patch have shoved back red to mere 1/3 mm. wide marginal pattern, eggs dull dark green about olive green in color.

#45-30

1 small depressifrons and large Portunid with first 2 ~~ambulatory~~ ambulatories quite burnt carmine. 3d ambulatory, dactyl, and distal third of propodus burnt carmine, first 2 dactyls quite a pansy purple. Distal 2/3 of fixed finger and upper side and extending past base on to palm below prune or dahlia purple. Movable finger terminal 2/7 dahlia purple, next seventh white, basal 4/6 to articulation distal the purple shading proximally into almost mouse gray and olive. Inside of hands white top cross barred.

Carapace largely fawn color with hinder margin and row of granules more or less purplish. Other markings and eminences more or less washed out china blue.

Art. of paddle legs, legs with body above orange, paddles distally (1/5) tinged with burnt carmine, rest of limb like proximal 2 joints of preceding leg sort of fawn prox. to clay color distally ~~mottled~~ mottled with white. Basal half of paddle either side of midriff with suggestion of pale lilac. Spines on chelipeds, tip ochraceous rufous, middle = white band basal half behind olive, before white upper surface of joints much like carapace mottled with white, antero-lateral spines much like those on chelipeds, eyes color of carapace--fawn is it or something like.

#45 - 30 Aug. 8, 1930.

Add to color notes on smaller of two Portunids with burnt carmine 2 & 3 legs.

These notes on larger specimen:

Teeth of both fingers purple, basal half of movable finger on outside face only quite azure blue up to white band; spot of purple marks articulation on ant. end of palm. Articulations of all legs including paddle leg on proximal side of each articulation marked with small touch of blue.

#45-30. August 8, 1930. Good sized Peneid.

Antennal flagella except for basal half inch crimson as is outer margin of outer blade of uropods. Hinder margins of uropods and distal mm. or two suffused with magenta. Otherwise, uropods and telson spotted with crimson, body otherwise ~~thin~~ thinly spotted with vermillion, thicker on rostral ridge, lateral ridges, anterior sides of carapace, ~~lateral ridges, anterior sides of carapace~~ and antennular peduncles, antennal scales almost white. Whole animal pale translucent white, legs whitest.

#45-30 Sicyonia

Dactyls and propodi of legs burnt carmine, rest of legs paler to about white toward juncture with body. Eyes more olive gray. Distal (terminal) half inch ant. flagella drab gray, next half inch china white, basal inch and a half pale rose purple little darker to white stretch, hairs grey, distal half somewhat saturn red. Body largely ecru drab with some cinnamon markings in depression, granulations and eminences white, teeth on carapace and ridge of abdomen on dorsal ridges russet, stripe of this runs down center line of telson, either side of which is lighter than inner branch of uropods and, like them, pinkish vinaceous, outer branches <sup>pure</sup> fine china white, inner margin with mere line of crimson, of outer branch only exposed part is white. Fringing hair of uropods and telson drab gray.

Between red and dotted line faintest,  
very faintest, stain of citron yellow.

Blades of pleopods burnt carmine, lighter than on legs. Spots on inner branches of uropod from below fit into this color scheme and of course are duller seen through from below than from ~~eye~~ above.

#45-30 Aug. 8, 1930

Little white shrimp, mostly transparent and hard to see, like, but lacking opaque white of, small shrimps described #44-30. Few tiny red crimson spots at base of scales and out on eyestalk, two thin rows a dot wide each. Eye little grey, ~~xxxx~~ couple of darkish oblique lines on sides of carapace.

#45-30. One very small Crangon formosus in same bottle. Typical colors.

#45-30. Aug. 8, 1930. Portunus spinicarpus

Like color notes in Bull. 152.

Quite transparent except for opaque white elongate patches around edges.

Part of paddle prune purple

outer margin light wood brown.

Midriff clearer than side parts which are very slightly tinged with the very light wood brown.



#450-30. Put in bottle with color noted Peneid, Sicyonia, and Parthenopid.

Porcellanid-galathinus typical coloration.

Little sponge carrying spider like one already color noted this day #457?

Larger spider with much projecting red sponge is light grey sand color below and where exposed above the same.

Podochela sand grey legs and mottlings on carapace of a sort of vinaceous ground color.

#47-30 August 8, 1930.

Little red spider under red sponge. Sponge = crimson X pomegranate purple. <sup>(and chelipeds</sup> Legs) poppy red, eyestalk ditto with narrow white stripe above. Tips of fingers white and dactyls look mostly white, but cannot see for attached debris in live crab. Corneae like legs with **mere** touch of hazel center.

#47-30

Large (medium) sized <sup>crab</sup> spider/with distal half of fingers bay with extreme tips white, dactyls distally whitish. Otherwise, whole crab, legs and all, is sort of deep buff yellow. Corneae more tawny. Growth on back is mixed reddish and dull greenish algae, Dictyotia. Bottled with #45-30 Portunid color noted.

#47-30

Little stomatopod larger dull, pale, olive yellow with whitish spots. Fringing hairs and uropod azure blue, corneae grey.

Inside, at end of chela as viewed from above two small dark purplish looking spots black of prune purple?

#45-30. Aug. 8, 1930      Is this synalpheid?

Tiny Synalpheid, and a smaller one same color. Body pale vinaceous. Carapace region, due to stomach and glands, bright orange. Chelae like body, fingers and distal margin of large hand orange, little hand, fingers ditto. Corneae greyish light vinaceous with grey black = #4 slate color centers. Legs and chelipeds, except hands ~~sixxi~~ and telson, quite colorless.

#47-30 Little Xanthid bottled with little red spider.

Carapace light part of orange ochraceous, legs and chelipeds largely dull china white with suggestion of cross banding made of stippling of clove brown. Fingers of chelae #12 pale smoke gray near articulation of movable finger, on ~~finger~~ finger few small irregular spots of russet, <sup>spotting</sup> /on hand and carpus this color. Chelipeds are not banded. Fixed finger less grey than movable one.

#47-30. Small Podocheltes herewith.

Legs and carapace ~~largely~~ <sup>largely</sup> dull parts of burnt carmine. Chelipeds ditto, <sup>above.</sup> marked with white, fixed finger white with 2 separated spots of burnt carmine. Merus white with long bar of the ~~above~~ red, carpus and palm largely red. Below chelipeds and sternum mostly white, legs colored as dorsally.

#48-30 Aug. 9, 1930

Large Portunid, like smaller one color noted yesterday. Second and third ambulatories burnt carmine. Articulating membrane of hind legs with carapace, above bright ~~red~~ cadmium orange. Hind border of carapace (naked line) plum purple. Other markings more heliotrope purple. Hind fifth of paddle orange rufous, proximal half of outer face of chelipeds and most of upper oblique surface ferruginous, basal half of movable finger a little more azure blue, except depressions filled with grey fuzz.

#48-30 Aug. 9, 1930

Squilla quite dark clove brown, two distal joints of last three thoracic legs and accessory branch to first of these rufous with many small cadmium yellow spots giving them an orange aspect, dactyl, propodus, and carpus of subchelate max. same color, ant. scale last joint of antennular peduncle and ant. and antennular flagella same. Rest of joints of peduncles colorless, distal half of outer and inner blades of uropods but not bifurcate basal spine.

Pleopods all dusky like body, fringing hairs of uropods, pleopods, and ant. scale ~~xxxx~~ French blue? Eyes like carapace, cornea black.

This joint of chelipeds  
pinkish vinaceous.

#49-30. Aug. 9, 1930

Mithrax largely burnt carmine X poppy red on carapace mixed with some crimson bands, mostly crimson. Spoons of fingers whitish, single tooth of movable finger whitish, and round spot on movable finger just at articulation on outer face china white (is a <sup>worm</sup> ~~XXXX~~ tube on either side ~~XXXX~~ but misleadingly symmetrically placed). Legs all <sup>fuzzy</sup> ~~fuzzy~~ sand color due to dirty hairs, hind part and lateral portions of carapace ditto.

#49-30. Found taking refuge in big tubular (cup) sponges.

Red striped, bright carmine stripes.

Legs, flagella, and peduncles bright

red. Antennulæ solid red, antennal

with long red bar. Body beautifully

? Eyes black, stalk with ?  
deep red bar above which seems to

connect with similar red splotch  
marking hinder margin of orbit.

Two put in alcohol and one in strong

formalin. Distal half of dactyls white.

#49-30. Aug. 9, 1930. Little transparent shrimp. Palaemon.

Bottled with alcoholic red striped shrimp. Few dark lines under sides of carapace, on gills? Eggs very pale pea green. Narrow band of sage green about middle of each finger of large chelae.

#49-30 2 spec. of this species, blue-clawed and blue legged Synalpheus.

Spec. of good size.

Flagella, peduncles, scales, free part of rostrum, legs, chelipeds throughout pale azure blue.

Movable finger and outer to dotted line on large chela color is muddied by sort of greenish blue

? Nile blue, with areas sort of pale ochre marking?  
yellow tinge of which may be the making of  
the near Nile blue coloration.

Body pale translucent colorless with fine red dots, thicker in rectangular patch

behind eyes and hinder part of carapace,

though on all abdominal segments somewhat

thicker on hinder half. Gland regions of

carapace and abdominal epimera with tinge

of pale gallstone yellow. Stomach proper

#5 slate grey. Tail fan quite transparent

and colorless, red spots inconspicuous.

#49-30. Aug. 9, 1930. Little synalpheid, ♂ ♀ near latastei tenuispina  
paulsoni group. Little blue clawed, greenish ~~xx~~ fingered Synalpheid with  
red design between eyes. Small specimens.

Chelipeds and second legs china blue, ambulatories purplish looking due  
to red ~~px~~ spots. Have a sort of clear area either side of fore part of  
carapace. Are these small editions of larger blue-clawed of this day's  
collections? Ant. part of chela and movable finger green, light parrot  
green? Touch of this green on scales and peduncles. Antennular peduncles  
only ones with red spots. Rostrum transparent green and very light colored,

ocular spines colorless. Sort of red design  
between eyes at base of rostrum. Stomach and  
glands in carapace quite dark, dark of olive  
green. Abdomens with slight tinge of most  
transparent blue to chitin with red spots  
of good size and everywhere giving it  
slightly purplish cast like legs. Red per-  
haps crimson. Eggs of female olive green.  
Bottled separately.



#49-30. Aug. 9, 1930. Little transparent shrimp. Palaemon.  
Bottled with alcoholic red striped shrimp. Few dark lines, iridescent  
ca

#50-30 Aug. 9, 1930. Blue-legged Synalpheid loose in catch.

More or less orange ochraceous.

Edges almost orpiment orange

Shading into a myrtle green

into indigo blue

Carapace <sup>n</sup>glads quite marine blue. Peduncles, flagella, and legs and maxillipeds azure blue, as is balance of cheliped proximal to carpus.

Carapace and orbital hoods without color.

Red spotted like blue legged ones from 49.

In this one of them clear area either side of front. Abdomen quite dark in forepart like

carapace, changing to green in hinder part

on fourth segment and there ending, 5 & 6 tail fan without color, just red spotted.

August 12. 1930

Amphipod found by Marsh on his Valonia opaque white, eyes with little faint ~~reddish~~ reddish color, cast, or hue suggested.

*Fig. 1 - 1930*

August 12, 1930. Squilla, dip net, Long Key seining beach.

Median line roughly 1/4 inch wide on free thoracic segments and first three or four of abdomen, tapering to width of telson ridge behind and little narrower in anterior part of carapace, and taking in median 3/4 or ocular  
 ? figured in pinkish buff to light clay or cream buff graded in color in various parts. About next quarter in either side dark burnt umber or the black end of Prouts brown, with figures on median line extending on to this brown a little bit from ~~above~~ above and #9 grey figures of next quarter inch which is mostly grey figures except for a 2-3 mm. dia. central area, which is quite black, which color also underlies grey figures last quarter inch each side, over and including epimera, rather closely figures with drab markings, leaving no or very little of brown ground color to show through.

Where  
 down  
 the  
 line } This spot is only well developed of 1st and 2nd thoracic and 1st abd. and penultimate abdominal to a lesser degree and much less markedly on others.

black 1/4 inch drops out of narrower carapace and next to median line area on last abd. somite and ~~xxxxxxx~~ on telson black.

August 12, 1930. Squilla, dip net, Long Key seining beach. CONTINUED

Three pairs legs on free thoracic somites same color with some ~~small~~ opaque spots which ~~are~~ become quite close together proximally so that just before

stalks between oil and olive green. Corneae largely broccoli brown striped longitudinally with narrow whitish stripes between darker. Antennal scales transparent except basal third with opaque white and few darker spots. Antennal peduncle ~~white~~ with white and broccoli brown barred flagella; antennular peduncles likewise barred, flagella light transparent broccoli brown.

August 12, 1930. Squill, dip net, Long Key seining beach.

Median

August 12, 1930

General color close to mummy brown and bistre, also might be described as cross between vandyke brown, burnt umber, and prouts, with dash of olive, legs and chelipeds, too. Chelae whitish on inside and below.

*Fig. 10*

August 12, 1930, seined. *Callinectes marginatus*

Back variegated ~~blue blacks, blacks, and tans~~ blue blacks, blacks, and tans (tawny olive russet and cinnamon). Margins, marginal teeth wood brown and lighter, terminal 3 mm. of tip of lat. spine light. Ambulatory legs sort of indigo blue, for propodi and dactyls, latter with margin line, it seems of wine purple next to dirty hairs, almost ~~sepia~~ sepia in color. Blue of second dactyls has almost faded to white. Carpi duller and blacker as though Indian purple had been mixed with blue. Meri ditto, getting lighter in proximal half, toward body and quite blue on under margins distally, quite white proximally.

Paddles orange ochraceous to ochraceous, with lateral margins thin line of Indian purple. Penultimate joint duller in color, ditto for carpal joint, too. Margins of propodal joint more indigo blue, margins of carpus somewhat dusky. Meri like preceding but tan almost smoky with hair brown overlay or cast, last two joints quite dark. Under parts salmon buff, abdomen and sternum and coxae. Legs below pale ~~china~~ china blue. Basal half of meri dark and vinaceous pink. Corneae light vinaceous cinnamon, eyestalks whitish, smoky streak on top. Hind edge of carapace behind marginal ridge salmon buff.



Aug. 12, 1930. Electric light. Surface, dip net. 8:30-10:00 p.m. S. to S.E.  
Loggerhead Key Light.

(Over night in ice box, blue when examined by light night before.)

Antennular flagella transparent, with opaque white spots about 6 to the flagellum. Terminal joint of peduncle, distal  $1/3$  opaque white, basal  $2/3$  sort of brick red; ant.  $2/3$  middle joint brick red, rest transparent, same true of basal joint. Antennal flagella with opaque white spots about  $3/16$  inch apart with faint dash of palest brick red between each two.

Scales only last 3 mm. of spine only on edges with red, and blade last 5 mm. red across whole tip. Little scales either side of rostrum, brick red X coral red.

Just upper flat face hairs white.

Corneae light parts of bottle green.

Red = quite bright scarlet

Whitish with few red speckles of red, 2 joints of stalk speckled with carmine, as is carapace quite thickly and abdomen to lesser extent, color spots form a sort of median streak (stripe) along alimentary tract, and more along hinder margins of somites than fore margins. Hinder

margin of 4th quite red in several patches,

deepest about notch of almost vermillion, same but?

on 5 about notch by only either side of

notch, not with the accessory lateral branches.

Red between coral and vermillion. Three pairs

chelae white, no color, ~~legs~~ legs ditto with

few (thin line of) brick red spots on upper

margin of joints. First pair ambulatories like

chelipeds

without color. ?

Second pair of ambulatories

Aug. 12, 1930. Electric light, etc. CONTINUED

Tinge of yellow shows through (or stains?) epimera over the basal attachment of each pleopod. Large joint of pleopods to which blades are attached spotted with brick red—first and second pair. 2nd pair with opaque white spots tinged with turquoise blue in part and others with ~~ix~~ crimson.

Aug. 14, 1930

Get lighter to dotted line, which I have put in to show approximate limits of brown. Underlying stripes of brown dots (of black end of mummy brown) are stripe of ochre yellow, 2 each side of white area, with lighter, almost straw yellow, between. Legs ochre yellow. Eggs and under parts of abdomen straw yellow. Third maxillipeds real dark, almost clove brown.

Aug. 16, 1930 Living Upogebia

Right cheliped and left chela without red spots of other spec. Ant.  
part  $1\frac{1}{2}$ -2 mm. of meri of 2nd legs with red spotted  
triangular area.

Fore part of carapace, in front of cervical  
groove cinerous. Red = poppy red.

Typical somite showing spotted areas.

Red spots in all but clear areas, but

where marked bluish are underlaid by blue,

which color also tinges carapace in these

regions. Blue = dark of china blue

also at little distance with red chromatophores

looks almost plumbeous.

Eyes = corneae black of bay, real dark bay

tending to clove brown.

Aug. 16, 1930 Upogebia. Dynamite. Spec. dead little while.

Red look like poppy red throughout.

Legs semi opaque translucent white. Chelipeds with two double lines of small red dots on either margin of narrow flat upper surface of propodus, outer face of carpus, and about base of white upper anterior carpal spine, and on upper margin of merus and flat dorsal triangular area at junction with carpus. Ant. part of body, dorsum of carapace and to a much lesser degree branchial regions tinged with maize yellow and no spots, first abdominal somite the same. Deep seated alimentary tract maize yellow, giving abdomen a faint trace of a tinge of this color. Hinder half of abdominal somites behind first and whole of epimeral regions red spotted; almost whole of last abdominal somite ditto except two translucent white semicircular areas and two post. spots with red dots. Ant. central half more or less (thick part of telson) red spotted, hinder and more lateral portions clear, quite transparent. Uropods, clear transparent, ant. margin and midriff red spotted, all ribs translucent white, but accessory rib of outer branch between mid rib and ~~on~~ ant. or outer margin without red spots. Eyes bay. Eggs between gallstone and ochre yellow, or maybe like light parts of ochre yellow. Pleopods clear colorless.

~~Aug. 1926~~ Aug. 16, 1930. Dynamite in flat by seining beach, Long Key.

Small Peneus

*Small Peneus?*  
Translucent white with opaque white spots and sparsely over carapace and abdomen, black of Vandyke or mummy brown spots very sparingly on tail fan and a little cluster at distal end of first (prox.) seg. of antennular peduncle, otherwise scales, peduncles, and flagella are quite free of colored spots though having plenty of opaque white ones. Ant. scales, basal joints of antennular peduncles and free part of rostrum transparent except for opaque white spots, legs and pleopods ditto. Glands in carapace showing but faintly a very pale wood brown color. Distal  $3/4$  of tail fan, including telson, transparent like legs and scales.