

August 12 - Sept. #6, 1925;
Rio de Janeiro, Brazil,
and vicinity

#1 Ilha Paqueta, Aug. 19, ~~1925~~
littoral

2 Nictheroy, Aug. 22, littoral

3 Ilha Paqueta, Aug. 23, "

4 Pedra da Itapuca, Nictheroy,
Aug. 24, littoral.

~~5 São Francisco~~

6 Conto do Rio, Nictheroy,
Aug. 26; littoral

7 ~~Up river~~ Ilha Governador,
Aug. 27; up river.

8 Off Ilha Governador; Aug. 29;
oyster dredge ^{depth} 6 meters.

9 Off ^{boat} Ilha Paqueta; Aug. 29;
oyster dredge, ^{depth} 6 meters.

10 Off Ilha Paqueta; Aug. 29;
^{boat} oyster dredge, ^{depth} 4 meters

- 11 Off Ilha Paqueta, Aug. 29;
boat dredge
- 12 Ilha Governador, Aug. Sept. 1,
tide flats.
- ~~#12~~ ~~September 9 - Sept. 16,~~ ¹⁹²⁵ at Santos
Brazil
- #13 Ponta da Rio, opposite
ferry, Santos estuary,
Sept. 12, littoral
- #14 Collected on muddy, sandy
beaches between canals
#4 and 5 Santos estuary
Sept. 13.
- ~~September 18 - 26,~~ ¹⁹²⁵ at Villa
Bella, Ilha São Sebastião,
Brazil.
- #15 South of Villa Bella, Sept. 19.
littoral

16 ~~rd~~ Stony beach, south
of ~~Hotel~~ Villa Bella, Sept. 20.

17 as in #16. Sept. 21.

17a Tow net haul, in front of
hotel ~~at Villa Bella~~ ^{between} 7:30
p.m. (#6 net) Sept. 21

17 b. ^{lobbines} net dragged on bottom
for amphipods, ^{in front of hotel} between
7:30 p.m. Sept. 21

17c Tow net haul in front of hotel
9:45 p.m. (#6 net) Sept. 21.

~~#6a~~

18 Freshwater stream, south
of town. Sept. 22 ^{Rio Jaguanduba}

- 19 ~~Fresh water stream~~ ^{Co₂ #18} — ^{Rio Jaguanduba} north
of town. Sept. 23.
- 20 In front of hotel, Villa Bella
Sept. 23.
- 21 ~~Fresh water~~ Co₂ # 18 and 19, Sept 25.
- 22 Co₂ ~~no~~ # 18, 19, 21, Sept. 26.
- 22"B" Tow net haul in front of hotel,
#9 p.m. surface, ^{low over 2 feet} Sept. 26'
^{of water}
- 22"C" ditto 11 p.m.
- 22"D" do 1 a.m.
- Oct. 2 ~~at~~ ^{-3 1925} ~~at~~ Paranaqua, Paraná, Brazil
23. Oct. 2, 1925, tide flat
collections
- 24 do. Oct. 3.
- ~~at~~ [#] Oct. 4-10; ^{and vicinity} ~~at~~ São Francisco
dos Sul, ~~Paraná~~, Brazil,
^{Santa Catharina}
25. ~~at~~ Praia Enseada, ~~at~~
Oct. 6, littoral
- 26 Fresh water stream, at Ribeirão de
Bananal, Oct. 6.

- 27 Ponta da Cruz, Oct. 7,
littoral.
- 28 North end of Praia Enseada
Oct. 8
- 29 Fresh water stream at Ribeirão
de Bananal, Oct. 8.
30. Praia Utatuba in drainage
ditches. Oct. 8
- Oct. 10-15, 1925
#31. Rio Negro, Paraná, Brazil,
and vicinity
- #31. Along banks of Rio Negro
above ~~the~~ railway bridge Oct. 10
32. Along banks of Rio Negro, on
mafra side, above ~~the~~ rail-
way bridge, Oct. 11.
33. Dish ~~pot~~^{pot} in river, Oct. 12.
- 34 Drainage ditches, Oct. 12.
- 35 Dish pot in river, Oct. 13.
- 36 Cast net collection, 7-8 p.m.
in rapids above railway
bridge, Oct. 14.

37. Fish pot in river Oct. 15

38 Fish pot in river Oct. 16.

~~#~~
1925
Oct. 17-20, Castro, Paraná,
Brazil and vicinity

39. ~~River~~ Rio Japo,
near railway bridge
Oct. 17.

40 At Hacienda Marumbry
day's trip from Castro up
Rio ~~Rio~~ Japo Oct. 18

41 Rio Japo, above Instituto
Cristo Christ - Oct. 19.

42 Rio Japo, near railway
Bridge, Oct. 20.

~~43. do. ~~Oct 21~~~~

Oct. 21 and 22, ~~1925~~ Rio Negro,
Paraná, Brazil.

43. ~~Rio Negro~~ Along river,
Oct. 21

44. ~~do~~ Fish pot, Oct. 22.

~~#~~

Oct. 28 - 31, 1925, São Francisco,
Santa Catharina, Brazil.

45, Ponta da Cruz, Oct. 28,
littoral.

46. do Oct. 29.

46 B. do Oct. 29.

47. do Oct. 29.

48 Drainage ditches along
railway right of way.

Nov. ~~4~~ - 6. ~~São~~ Florianopolis,
Santa Catharina, Brazil.

49. North end Praia da Jora,
Nov. 5, littoral.

~~50~~ Nov. 10 - December 10, 1925,
Montevideo
Uruguay and vicinity.

50. Artificial lase in Prado
(6 miles E.)

51 with steam hauler, 10 fms

Isla de Flores, Rio de la
Plata, Nov. 13, 1925, 7 fathoms; mud

52. 7 miles ~~#~~ E.N.E. of ^{otter trawl} ~~pts.~~ Nov. 13. 7 1/2 fathoms, mud.
53. 5 miles ~~#~~ N.E. of otter trawl ^{otter trawl} ~~pts.~~ Nov. 13. 7 1/2 fathoms mud.
54. 4 miles ~~#~~ E of ^{otter trawl} ~~pts.~~ ^{8 fathoms mud} ~~otter trawl~~
55. 5 miles S. of ~~#~~ Isla Flores; ^{otter trawl} ~~pts.~~ mud
56. Punta del Este, Nov. 15, ^{otter trawl} ~~pts.~~ lateral
57. Otter trawl, off Isla Flores. Nov. 16. 2 hauls, 5 fms., mud.
58. 13 miles S.E. of Pontón Paro, ~~#~~ Banco Inglés, ^{otter trawl} ~~pts.~~ Nov. 18, 7 1/2 fathoms, mud.
59. 10 miles S. of Pontón Paro, Banco Inglés, ^{otter trawl} ~~pts.~~ Nov. 18, 7 fathoms
60. 15 miles S. of ditto. 8 fathoms mud.
61. E of ditto Nov. 18, 8 1/2 fathoms, mud

- 62 Punta Creta, littoral. ^{Nov. 21,}
63. 4 miles E. of Isla de Flores
Nov. 24, ^{otter haul} 7 fathoms, mud.
- 64 6 miles N.E. of Isla do
8 fathoms mud.
- 65 At Barro de Santa Lucia
Nov. 25, tide flat by boat
~~boat dredge and shore house,~~
collecting
66. do. shore collections
~~down stream~~ (down stream).
67. do. four boat dredge
hauls, 3-4 meters;
mud ~~at~~
68. Banco Arquimedes
Nov. 28, otter haul, 7 fathoms
mud
69. do. Nov. 28, do 7 1/2 fathoms
70. do. do do.

71. ~~The~~ Small stream tributary
to Arroyo Miguelete, in
Prado. Dec. 1.

Dec. ~~4-7~~ 4 and 5, ^{1925;} en route
to ^{Puerto} Sa Paloma, Uruguay.

72. ~~River~~ River at San Carlos,
^{Dec. 4,} tow net,

73. Crabs caught on baited
fish line, river at San
Carlos. Dec. 5.

74. Rocha, near at hotel,
Dec. 5.

Dec. 6-8, ^{1925;} at Puerto Sa
Paloma, Uruguay.

75. Between hotel and light
house, Dec. 6, littoral

76. Tow net haul from pier
near hotel, ~~Dec. 6~~
Dec. 6, 9 p.m.

77. Tow net haul in surf on beach in front of hotel.
Dec. 6, 9.45 p.m.
78. Far side of bay before hotel, Dec. ~~6~~ 17, littoral
79. West of light house, Dec. 7, littoral
1925
- ~~80~~ Dec. 9 - 13, Montevideo Uruguay and vicinity.
80. Crayfishes from General Bazzano's place just outside of Montevideo, ~~Dec 7~~ ^{Dec 10}
81. Canasco Creek, ~~Nov~~ Dec. 11.
1925
- Dec. 13 - 28, Buenos Aires, Argentina
(worked over museum collections)
82. ~~at~~ Isla Flores, ~~Dec~~
Tigre, Buenos Aires, Dec. 25.
#

Dec. 1966

Typewritten copy of these notes
filed with Bacon Scholarship
material in Expedition File.

United States

National Museum.

Bacon Scholarship
1925

Smithsonian

Institution

Stations 1-71

Waldo L. Schmitt

Book # 1. From Aug 1925 to Dec. 1.

James + Esther Bacon

Water sample 16 a² 1025
70°F

" " 18 = 1025
shade at 70°F ^{top of} ^{meniscus} _{1/20 height}

La Mer/la Mer dans La Nature
La Mer et L'Homme. / 40 francs

Par G. Clerc-Rampal/
Préface de A. Berget

636 photo reprod.

10. Hors texte en couleurs

16 " en noir.

316 Cartes en noir of dess. 145

Paris - Librairie Larousse

~~J.F. Prunter~~ Capitán Argimon
" Instituto de Pesca No. 1"
ex "Diez" ex "Princess Royal"

Tons Bratos 287

" Red 97

Año de Construcción 1906.

Eslora 140 pies 42 metres 67

Muesca 23 " 7 " 01

Calado 12 " 3 " 66

36 N.H.P.

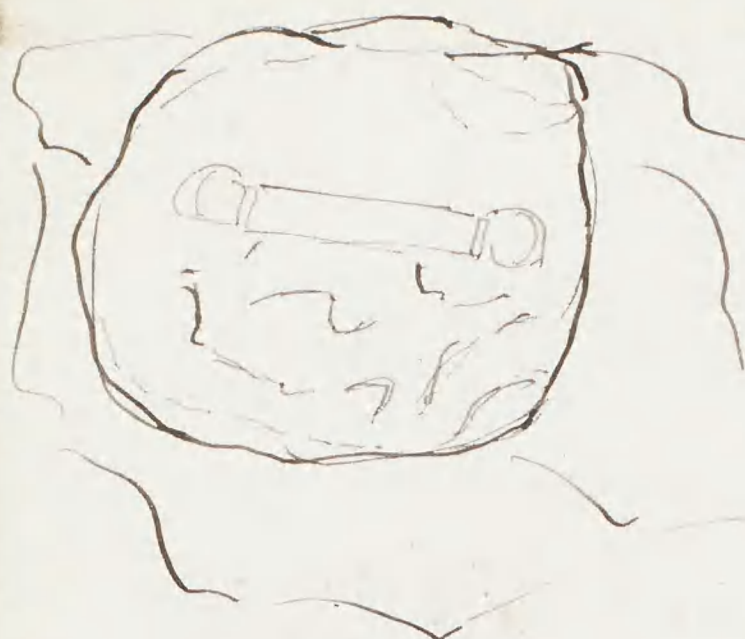
Construidos los Astilleros de A. Hall
Lda. Aberdeen

El Consultor Culinario por Pascal
Acaba de Aparecer 5^{ta} ed. \$1.00.

Friendships everything in this country
especially Brazil (old Spanish hold over
medieval when there were only friends &
enemies, & no law order or security)
It pays to make as many as
you can & keep them.

Dentist in Castro my tooth for
landlady is a factor

James + Esther Bacon



Face on
Bottom of
Bag in
(Hotel
Globo.

[Faint, illegible handwritten notes or scribbles]

TEMPERATURE RECORD.

1

Instrument used,

Current number of observation,

Date,

Paqueta Ilha

Locality,

Bearings,

Bay of Rio de

Time of day,

; of tide,

Janeiro
Brazil

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

✓
1 Aug 19 - 1925

REMARKS.

Syngnathia common everywhere but hard to catch.
Xanthids everywhere
two little Galathea like crabs from, soft bluish star, the large slender rayed one.
amphipods washed from sea weeds. collected abroad id, one or two crabs picked up on beach.

Callinectes from N.E section north of Brown place on warm sandy flats, shallow between boulders + along sea weed, on small Portulaca yellow brown from mud flats?

Callinectes ornatus for.

TEMPERATURE RECORD.

✓
Instrument used, _____
Current number of observation, _____
Date Wed. 19, Aug. 1925.
Locality, Ilha Paqueta, Bay of Rio de Janeiro
Bearings, _____
Time of day, 9 a.m. - 2 p.m. of tide flooding
State of sky, Tide begins
Temperature of air, tidal flats
" surface of water, _____
" at depth of _____ fathoms,
" of bottom, _____
Depth, in fathoms, Shore coll
Nature of bottom, Rocky, sand beaches
Direction of surface current, intervening, rocks
Force of surface current, fairly large,
Direction of bottom current, smaller ones in
Force of bottom current, one or two places
Name of vessel, This applies to most
To what service attached, of old, on west
Name and rank of commanding officer, side, going
Name and position of observer, road to north
where Depulus + Crangon were found

✓
Icarathus
Entr. de Rio
REMARKS.

2 Aug. 22 ~~nothing~~
Everything saved but
small representation of
life on rocks by Gouto
de Rio. Didn't have time
to collect more.

Small fishes from the Rio
a little stream running
through sand? but
just only had high water
strongly cut off at low
tide didn't seem to have
any current, but I'll have
to go back to look at it
Crabs came from little
pool bet. two large rocks
as did most of other stuff
worm tubes, bryozoa etc.

Green algae all over
rocks amphipods from there
& *Myria* *Syngnaja* everywhere
I think I have several of
largest; pool had a temp.
23° Cent, or maybe a shade
over water sample taken
of pool. *

✓
Brazil
TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date, Aug 22, Sat. 1925

Locality,

Bearings,

Time of day, 9¹⁵ - 10.30 a.m. Low tide

State of sky,

Temperature of air,
" in pool foot tide 18 inch
" surface of water, deep 3 feet long
" at depth of fathoms,
" of bottom, = 23° C.

Depth, in fathoms,

Nature of bottom, Sand beach betw
rocks

Direction of surface current,

Force of surface ~~current~~,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

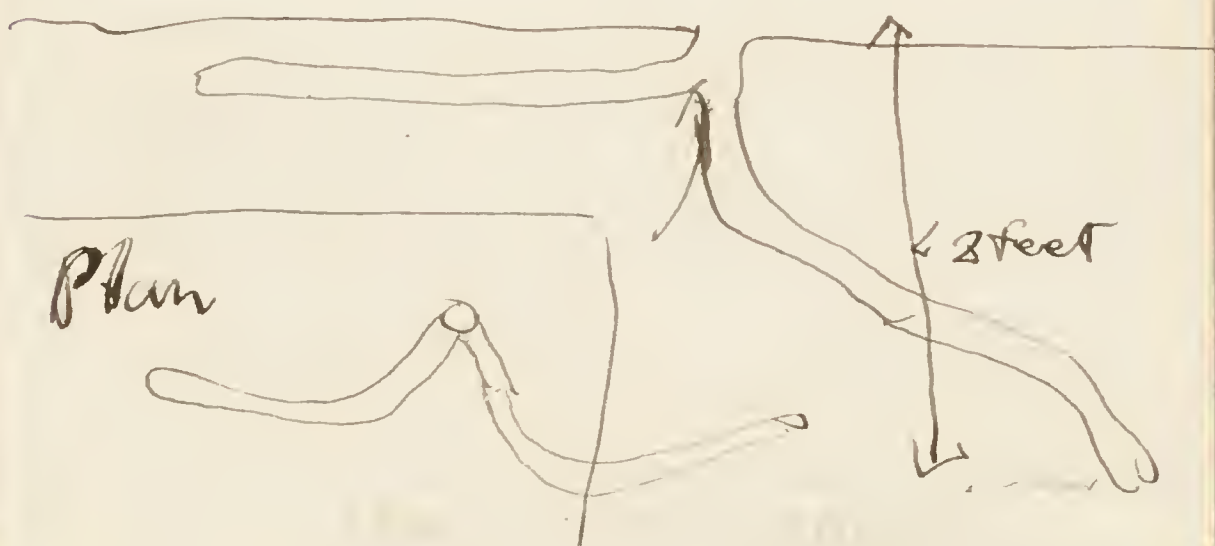
Name and rank of commanding officer,

Name and position of observer,

a boy watching
me pulled an
Erythra gonagra
claw from rock
crevice, same one
in which pool
was, but he
failed to get
crab.

REMARKS.

3 - Plug in holes noticed in mud flat between large granite boulders on east side got a lot of small fiddlers, and three ^{smaller} ^{than} ^{the} ^{others} larger crabs latter went as deep down as 2 feet. latter used shovel. just failed at getting a third of the 2 larger ones, holes seemed about 2 inches in diameter. always had a lateral passage near the surface.



3 TEMPERATURE RECORD.

Instrument used, *Paquela*
 Current number of observation, *Aug. 23 / 1925*
 Date,
 Locality,
 Bearings,
 Time of day, *2 p.m.* ; of tide, *low, about*
 State of sky, *in turn in*
 Temperature of air,
 " surface of water, *26°C.*
 " at depth of fathoms,
 " of bottom,
 Depth, in fathoms, *mud beach was completely uncovered today.*
 Nature of bottom, *small fiddlers caught by sticking forceps or rod in ground*
 Direction of surface current,
 Force of surface current,
 Direction of bottom current,
 Force of bottom current,
 Name of vessel, *at angle to intersect*
 To what service attached, *hole about 4 eds*
 Name and rank of commanding officer,
 Name and position of observer, *from N of same below surface crab always came up near in haste + w readily caught with fingers*

REMARKS.

4 Aug 24.

Unfortunately got over on Pedra da Itapuca, after tide had started rising and so was unable to get much other than small stuff.

Saw a large brown mottled Portunid but failed to get him. Current strong lot of sea weed, but short.

Scholites got after being scared out from rock let himself drift in strong current all huddled up.

TEMPERATURE RECORD.

4

Instrument used,

Current number of observation,

Date, Aug. 24 - 25

Locality, Pedra da Itapuca

Bearings, Bay of Rio, Nictheroy, Brazil

Time of day, 1.30 p.m.; of tide, 1/4 rising

State of sky, Clear sunny

Temperature of air, in little embayment of shore

surface of water, 25 1/2 C. = 77.9 F

depth of fathoms, 0 - 1/4

of bottom, Rocky

Depth, in fathoms, 0 - 1/4

Nature of bottom, Rocky

Direction of surface current,

Force of surface current, 8 or 5

Direction of bottom current, 9 or 6.

Force of bottom current, 10 or 12

Name of vessel, U.S.G.

To what service attached, U.S.G.

Name and rank of commanding officer,

Name and position of observer, Pedra da Itapuca

#5 ✓ Aug 25 9.05
 at 8:30 REMARKS
 Callinectes vociferus a.m.
 " Cirig" - puapa

(bead) spun all
 In morning + at night 4.30
 as tide all night.

out to curve, trunk of tree
 2 piddlers, 1 sandpiper
 yesterday 15,000 fish with 1 seine
 taken "tain bus" - muller

50 meters long
 1 meter at end
 8 in middle 24 min.
 for sample of things
 at this place
 10.40 am back to port

Caprella must have been
 on attached Gulf weed
 laterally by the pinnacles.
 Pieces of weed saved with
 algae. were stuck to algae
 by ant

new core with 1 cm to (4,000 sec)

#5 ✓ Aug 25 - 25
 TEMPERATURE RECORD.

1026 in Salinity with Nab.
 Instrument used, Resend Conell
 Temp. 72°F 1026.3
 Current number of observation. Temp. 71.9°F

(B.K.) Date, with B.F. 1024 to top of meniscus
 2nd read. Locality, Temp. 22 2/3 °C

Bearings, falling?
 " 2 "

Time of day, start, at 4 of tide.
 State of sky, Colombia in 11 "

Temperature of air, Colombia side
 9.26. 23 1/2 °C

" surface of water,
 " at depth of at surface on rock
 " of bottom. by seine haul.

Depth, in fathoms, 11.00 23 1/3 °C
 Nature of bottom, H.I. # 3 = 6.8 (5.0)

Direction of surface current, (2)
 Force of surface current,
 Direction of bottom current, #6

Force of bottom current,
 Name of vessel, over by crystal beds

To what service attached, 23 2/3 C. 11
 Name and rank of commanding officer.

Color of Name and position of observer, 8.3 only
 shade of darker
 time

2nd test = (8.4) done over days

#6 Aug 26/1925
REMARKS.

Went over to get water
sample in stream
found it flowing abt
On up stream side of
bridge got a few fiddlers
from holes in sand +
some amphipods. saved
a sand sample to
find out how salt it
might be; also water
sample.

There were some
worms that looked
like earth worms in
it.

few fiddlers from
same sand.

✓
Aug. 26
TEMPERATURE RECORD.
#6 Combs River

Instrument used,

Current number of observation.

Date,

Locality,

Bearings,

Time of day, ; of tide.

State of sky,

Temperature of air,

" surface of water, 25 1/5

" at depth of fathoms.

water of bottom. Sample B 3 - 4 in. depth
deep

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer.

Name and position of observer.

REMARKS.

#7 Aug. 27. Went up river on Governor head, shallow, muddy estuary big mud flats on either side, mangrove swamps full of crabs fiddlers etc. Large Callinectes in creek. Had to meet Fishers Society at 4 p.m. So could not put my specimens up. Hope to do so in a.m.

got lots of other debris + water sample.

No end of mud branches some paved, all over and through byzonia + sponges among byzonia on outside of latter only

#7 TEMPERATURE RECORD. Aug. 27.

Instrument used,

Current number of observation.

Date,

Locality,

Bearings,

Time of day, ; of tide.

State of sky,

Temperature of air,

" surface of water. 24.9.

" at depth of fathoms, 2 1/2 feet.

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current.

Force of surface current,

Direction of bottom current.

Force of bottom current.

Name of vessel,

To what service attached,

Name and rank of commanding officer.

Name and position of observer.

✓ Aug. 29, 1927 11:30

REMARKS.

8 oyster dredge

Saje de Tosa

6 meters } GOVERNADOR
= 3 fathoms

mud bottom shell
fragments 100 meters
off shore.

2 amphipods, an
ophurian, 2 star fish

lost tow net
got loaded with
mud.

Aug. 30 at
Pedra with
Orange + Green

TEMPERATURE RECORD.

Instrument used,
Current number of observation,
Date,
Locality,
Bearings,
Time of day, ; of tide,
State of sky,
Temperature of air,
" surface of water, 24° ?
" at depth of 0 fathoms.
" of bottom,
Depth, in fathoms,
Nature of bottom,
Direction of surface current,
Force of surface current,
Direction of bottom current,
Force of bottom current,
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer.

REMARKS *your lady*
 #9 off Paqueta
 12.30
 8 nos
 nearest point
 River but toward
 landing stage
 mud in last
 half of dredge
 sand in 4th
 half / 1 little

Crab, starfish
 + pagoda
 + keyhole
 (1) under
 26 m

TEMPERATURE RECORD.

Ubirajara

Instrument used,
 Current number of observation,
 Date,
 Locality, *Captains*
 Bearings, *pts of Costa*
 Time of day, ; of tide.
 State of sky, *paço da Costa*
 Temperature of air,
 " surface of water, *25.0*
 " at depth of *10* fathoms.
 " of bottom.
 Depth, in fathoms.
 Nature of bottom, *name of 4th Indian*
 Direction of surface current,
 Force of surface current, *helped the Portuguese*
 Direction of bottom current,
 Force of bottom current, *when they first called*
 Name of vessel, *Brazil*
 To what service attached,
 Name and rank of commanding officer,
 Name and position of observer.

REMARKS.

~~#10~~ This ten
not made got
sticks on bottom.

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide.

State of sky,

Temperature of air,

“ surface of water,

“ at depth of fathoms,

“ of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer.

Name and position of observer,

✓

Bar dredge
REMARKS. 2., 30 p.m.

10 Paqueta
4 meters deep

of road excavation
between
fenced place
near school.

many machines
2 starfish diff species
sandy with shells

✓

TEMPERATURE RECORD.

Instrument used,
 Current number of observation,
 Date, ~~Sept 11~~
 Locality, ~~Paqueta~~
 Bearings, ~~N 100 E~~
 Time of day, ; of tide.
 State of sky,
 Temperature of air, 25°C.
 " surface of water,
 " at depth of fathoms,
 " of bottom,
 Depth, in fathoms,
 Nature of bottom,
 Direction of surface current,
 Force of surface current,
 Direction of bottom current,
 Force of bottom current,
 Name of vessel,
 To what service attached,
 Name and rank of commanding officer,
 Name and position of observer,

✓ Boat ready 3 p.m.
 REMARKS.
 # 11 / 17 meters off
 end near
 Praia near
 road down

few shell frags
 soft blue
 mud black
 covered

✓

TEMPERATURE RECORD.

Instrument used,
 Current number of observation,
 Date,
 Locality,
 Bearings,
 Time of day, ; of tide,
 State of sky,
 Temperature of air
 " surface of water,
 " at depth of fathoms,
 " of bottom,
 Depth, in fathoms, *paraia do feria*
 Nature of bottom, *quai*
 Direction of surface current, *250*
 Force of surface current,
 Direction of bottom current, *Norculo*
 Force of bottom current, *Francisco*
 Name of vessel, *Leal*
 To what service attached,
 Name and rank of commanding officer, *Leal*
 Name and position of observer,

REMARKS.

Below bridge collection over mud flats. Under rocks + sponges plenty of latter several species yellow, some purple + white, encrusting with stalked byzonia algae etc. tiny Xanthidia in crevices + cavities got two small orange gray-bl. w. + translucent white gray barred. shed claws right away heard more than I could find! collected bunch of sponges + debris for washing out amphipods.

11/11/11

✓

#12 below bridge TEMPERATURE RECORD.

Instrument used, *no record*
 Current number of observation, *Aug. Sept. 1.*
 Date, *11/11/11*
 Locality, *Elba Gobernador.*
 Bearings, *still*
 Time of day, *10.07*; of tide, *run out of stream*
 State of sky, *clear*
 Temperature of air, *24 1/3 °C.*
 " surface of water, *24 1/3 °C.*
 " at depth of *10* fathoms.
 " of bottom, *water 20 fms*
 Depth, in fathoms, *10 fms.*
 Nature of bottom, *water 20 fms*
 Direction of surface current, *over 8 but*
 Force of surface current, *color too*
 Direction of bottom current, *deep.*
 Force of bottom current,
 Name of vessel,
 To what service attached,
 Name and rank of commanding officer,
 Name and position of observer,

Presidente "Z 11" Estado Rio
São Francisco
Sr. Victorino ~~Fei~~ Teixeira

Gomes
Victorino ~~Teixeira~~ Gomes
50 meter ^{sardine} seine

Rozza
Sr. Alexandre ~~Robze~~
Presidente "Z 1" Dist. Federal
Ilha Governador

Charge of Fisheries. } President of
entire
Confederation

19
30
31
60
61
66 / 97 (1)
Lucien Jouenne
"Pendant vos vacances,
pêchez au bord de la mer
Prix 12 francs. (Coll. Baudry de
Savniere; E. Flammarion, éditeur).

as 25 25 25

Wac...
D. 14
Rou...
C. F. ...
A. ...

La Pêche et Les Poissons
nouveau dictionnaire général des
Pêches /par/ Henri de La Blanchère
préface par Aug. Duméril.

Paris, Libraire Ch. Delagrave
" " 15, Rue Soufflot, 415
has "silence".

mailler un filet.

Diccionario, ilustrado, descriptivo
valorado etc. /por/

Benigno Rodriguez Santamaria/
Cabo de mar de puerto del.^a clase,
Conservador de la Sección de Pesca del
Museo Naval.

Madrid Artes Gráficas "Mateu"
Paseo del Prado, 30
1911

Federico Schweizer

✓ Fiddley crabs.
 # 12 ^{REMARKS.} Olha Grenadier.
 up river at
 old bridge culvert
 water temp 31 + °C.
 water sample
 An. ussony hds.
 Ruined good picture
 of hole in ground
 by tamping off back before
 inserting slide. Got a
 good representation of
 fiddlers wh river where
 I was the other day.

✓
 TEMPERATURE RECORD.

Instrument used,
 Current number of observation.
 Date,
 Locality,
 Bearings,
 Time of day, 12 noon, of tide, just about
 State of sky, shortly after sun
 Temperature of air, running wh slowly
 " surface of water, temp + sample
 " at depth of fathoms, taken off
 " of bottom, old culvert
 Depth, in fathoms,
 Nature of bottom,
 Direction of surface current.
 Force of surface current,
 Direction of bottom current,
 Force of bottom current,
 Name of vessel,
 To what service attached,
 Name and rank of commanding officer.
 Name and position of observer.

✓
14 Sept 13, 1925. REMARKS. 25.

Collected on muddy sandy beaches
between canals 4 + 5 Santa.
and on mud flats about # 5.

My shoe got too little
Uproxiae color of my tripod only took
lighter. // on mud flats ^{#5} under rock
found an eel, and number
of xanthids + graptoids
+ Uca.

got a few ascidians attached to
side of rock among worm tubes
in shallow tide pool.

Saw a brownish alga in
small pool under rock but failed
to get it was darker than gelatin.

Boys got a few Ciris (Potamocoris)
and number of hermits.

From Parsloe: Santa Fisheries ponds
organized, ^{Sept. 11, 1925} price of fish high.
Shrimps run from 4-10 \$000 per kilo + wh
as high as 20 in times of scarcity
Rice prices run from 2-3 - 7 lbs latter
being the high figure. Fishermen are mostly
poor + have only canoes, motor boats are 30-40
M.R. per hr.

TEMPERATURE RECORD.

- Instrument used,
- Current number of observation.
- Date,
- Locality,
- Bearings,
- Time of day, ; of tide,
- State of sky,
- Temperature of air,
- “ surface of water,
- “ at depth of fathoms.
- “ of bottom.
- Depth, in fathoms,
- Nature of bottom,
- Direction of surface current,
- Force of surface current,
- Direction of bottom current.
- Force of bottom current.
- Name of vessel,
- To what service attached.
- Name and rank of commanding officer.
- Name and position of observer.


✓ *Sep 19* 1925
REMARKS.

#15 South of Villa Bella

Sao Sebastião

Collected along beach to south of Villa Bella, sea-weed washed for amphipods. One pc. of gulf weed attached had number of *Eupallia tuberculata* forms + several shrimps. 2 of about same size were blackish, maybe clove brown with white marks in middle of back, rest + frontal + lateral margins whitish, dirty () next to largest one

read brown with white marks in middle of back. Largest one rest of dorsal under x roots brown + whitish marks in middle of back. Rest brown, rest of fading into sage greenish distally, rest between largest + white pointed in color. but without white fronts. *|||||* 5 tiny shrimps 2 with spines on carap. (1 = blackish bottle green with last 3 seg. of abdomen + tail fan dirty transparent brown. other = speckled sandy with of drab grey + clove brown spots mixed or color they would produce) *|||||* two with *→* rest. = olive x max yellow, 1 one with slenderest rest.

all with transparent with  double stroke of olive yellow, mixed with little ochraceous on abdomen. *|||||* latter + tail fan ochraceous rufous with transparent clear spot on base of telson as indicated. *|||||* little hermit with sage

green + olive markings spots, a narrow bands with wide bands of dirty whitish tinged with same color, but just degree lighter than dark spots.

3 small spider crabs dark muddy green algal color *|||||* like empty alga. *|||||* Algal thens.

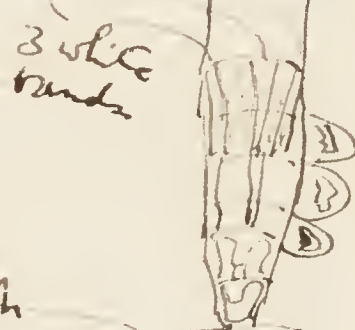
Hazel Xanthus white bellies dark fingers legs cinnamon

small hand similar

bars of bluish spots on large head

TEMPERATURE RECORD.

Instrument used,
Current number of observation.
Date,
Locality, *bertalloe with*
Bearings, *enough brick red spots to give at little distance bet stroke purple + china blue color*
Time of day, *all noon, all day* of tide. *Collect with morning*
State of sky, *Cloudy, threatening rain* *low tide at 7:10 tide ebb coming in by 4:30*
Temperature of air,
" surface of water,
" at depth of fathoms.



Depth, in fathoms, *Done* *Samp at 6.30*
Nature of bottom, *m 20* *water at surf. 71 1/2 F*
Direction of surface current, *major* *air 69*
Force of surface current, *S 1/2 E* *air at 7.30 71° F*
Direction of bottom current, *water sample saved*
Force of bottom current.

#15a Name of vessel, *at night used tower*
To what service attached,
Name and rank of commanding officer, *and got any quantity of life of all kinds. Just larvae*
Name and position of observer, *fish larvae amphipods + some ostracods. one would think the amphipods were luminous.*
net dragged back + forth few times 2 - 2 1/2 feet water / 10 p.m
6 x x net. Bur. Fish.

1925
 #16 Sept. 20 Collected
 on stony beach, point
 beyond where we were yesterday
 south of. Got number of Crangons
 and one Upogebia

Pontonid chitin pale salmon buff legs palest
 of pale olive buff, ovaries + egg mass showing
 through bright cadmium orange to orange not all solid one color
 alimentary tract in body sort of green-olive brown-black

Synalpheid pale buff pink with trace of
 vinaceous cinnamon mixed in edges of
 distal half of palm + all margins of fingers with
 fine line of bottle green, alimentary tract as in
 preceding.

Upogebia, now in dish mottled pea greenish underlaid
 with tinge of eggstone yellow
 1st seg + telson without yellow, in both edgelen
 hands chelipeds pale ochraceous buff which was
 color when caught. under stone in crevices in
 gravel + sandy, some mud, but mostly with
 coarse gravel. Carapace also with all yellow, chitin with
 yellow + green mottling
 legs all white light

Crangon #A. Dist of glass bottle + surge green
 hands mottled with milk blue, back with
 finer mottlings + blacker. legs sort of salmon buff
 ant. third of abdominal somites white, not
 def. marked off, irregular line of white same
 time of tail fan throughout length of pale orange
 rostrum, 2nd + 3rd epimeron with black
 spot near hinder margin, flagella sort of cinnamon
 + hair from, which also seems to suggest tinge of
 body at times. in parts orbital hood white buff
 for black cornea white area narrow in first few
 somites very wide behind, half of last somite
 edge of tail pale tawny ochraceous to ochraceous

Crangon #B. Much like preceding but general
 color very dark black green like myrtle green, main
 through no blue seen in green (black bottle green) blue
 there are tinges of heliotropic purple in sides. epimeron
 which are mostly whitish but with noticeable, like the black
 part of indigo blue narrow margins. Tail fan dark
 all blue, black little white on margins, and 1/4 or 1/5 of abd.
 somites white, making rather definite + conspicuous stripes
 as compared to black green which is faintly speckled with
 dirty yellowish white. black spot on 2 + 4th epimeron as
 in preceding. hairs of tail fan ditto but paler, center
 orbital hood white quite white around black cornea with
 tinge of lemon yellow (rest dirty white grey) tail fan beautiful
 mottled blue

Chelipeds about uniform (Berlin blue) bottle green
 a grey green as it were than bottle green

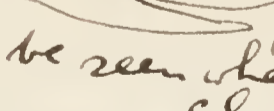
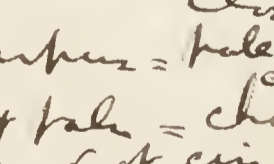
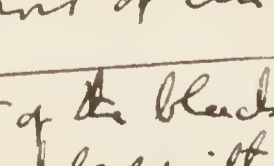
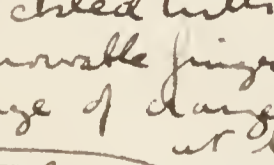
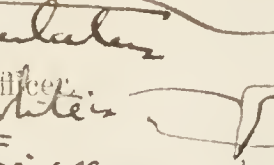
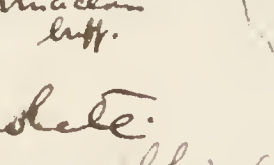
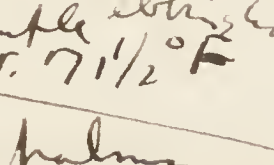
TEMPERATURE RECORD



Crangon #C abdominal carapace + frontal
 appendage oil green tail fan + flagella lighter
 hands darker = bottle green more, in fact color
 from hinder end gets darker forward to hands.

Tip of margin of lower band white distal half of lower
 margin + tips of fingers of small band tawny
 hands not speckled but body color is, is made
 up of mottled apple green, with sort of muddy fuscous
 range? mottling gives? green effect. legs salmon.
 orbit whitish

Crangon #D. Color very much like B. is a
 dark blackish green crangon but without white
 very little white scarcely any spot at base of
 tail fan, not black spots laterally, only orbital
 hood whitish, body mottled like preceding but
 effect darker like "B". little blue no white
 red on distal half of tail fan practically
 none on base


Petrolisthes distal joint at least of 2nd
 maxillipedes lighter ultramarine blue, hairs of
 same range

Depth, in fathoms,  Part of fins
 Nature of bottom,  light coral
 Direction of surface current,  red, not to
 Force of surface current,  be seen when fins are caped
 Direction of bottom current,  closed
 Force of bottom current,  pale coral red x
 Name of vessel,  change range
 back of crab sort of the black part of
 olive green speckled with (finely)
 apple green; tip of movable finger with faint
 tinge of orange (and red
 at base)

#16 Eupallium tuberculatum
 Name and rank of commanding officer,  faint brown
 Name of carapace pinkish white rings
 = finite with bluish pale vinaceous
 where joints white buff.
 Name and position of observer,  propod
 legs without have a chocolate. of last
 two legs white
 with brown band
 dirty white
 cheliped ditto

#16a main water sample bluish
 Air 69°F water 71 1/2°F
 #16b water except palms
 bluish tide over distally + most of movable
 Air 72 1/2°F fingers = dove brown almost black
 water 71°F

✓ #17 same place as 16.
 2 spec's **REMARKS** Sept. 21/25 #15
 Orange same as one noted and #15
 eggs ferruginous, carapace
 12 more shells
 stippled all over greenish
 slaty black (2) = grey black
 blackish slate
 dirty blackish white
 = large of flamm
 - slaty black
 - white
 - brownish black
 point indistinct white
 - white
 black with shiny indigo blue
 bay fringe
 blind (3)
 - last one



3 smaller greenish crangons
 2 larger speckled generally
 ferruginous in appearance

2 green dented small forms like Saluzian
 large little green legs pinkish
 large brownish. Eggs + alinae
 give it an almost dented brown
 appearance. (apparently in ditto. Looked Bay.)

1 with all green jaws
 1 Urocybia shed both jaws.
 tail fans dark abd. red with color. abd.
 translucent but above looks colored due to eggs.

#16 continued. Hydromus a ditropis
 legs olive & olive green, darts
 with white stripe down inner + outer
 sides, tip of claw black, but just before
 it spot of reddish end. range. flagella red
 horn, base of flagella blood red. distally
 antennula peduncle rufous. distal end of
 last joint = azure blue?
 Abdom. dark red and spines brown ground
 color with spines? spots of yellow
 flagella peduncle rufous.

✓ #17 a Tow net haul
 Sept. 21/25 net #6 xx
TEMPERATURE RECORD.
 on porch of hotel from
 Instrument used, 7-7.30 p.m.

Current number of observation
 #17 b. with bobbinet
 Date, dip net dragged
 Locality, along at bottom
 Bearings, 7.00 - 7.30 p.m.
 Time of day, of tide.

#17 c 9.45 p.m.
 State of sky, still north wind
 Temperature of air, surface of water,
 " like breeze statures
 " at depth of fathoms.
 " of bottom, but tide quite
 Depth, in fathoms, low as usual low
 Nature of bottom, joints
 Direction of surface current,
 Force of surface current, must have been est
 Direction of bottom current, as other two
 Force of bottom current.

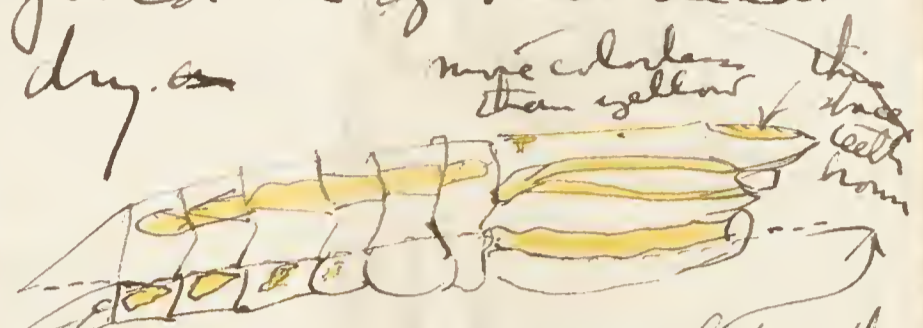
#16 b. a second haul
 was service made at this time
 Name and rank of commanding officer,
 I intended tried to
 see if Newton Harvey could
 Name and position of observer,
 find luminous organism
 in it

#18 Sept. 22, 1925.

Collected in stream for fresh water shrimps got several species, one of them with yellow marks. Climbed out of 8 oz bottle traveled 1 1/2 meters 1/2 across table over across wood floor & through hole in wooden partition & 1/2 over dry clay tile under door & across granite flag walk in hot sun & was found on ground dead belly dry.



Large chela like & similar shape to (last) purple as I remember it.



only lower lateral stripe in the carapace bright yellow & two submedian in abdomen. rest fainter yellow speckled with dark color. telson with just a fleck of yellow at base in rear blade of fan with oblique yellow spot. spines with a tiny one next spine. Two last 4+5 abd segments with bright yellow on carapace black of midline. dark color = tinged with clear brown. lighter below dotted line = hazel transparent yellow = lemon yellow. tail fan = dark of margins darker basally transparent blood red. x = rider. x' = maroon purple. legs, margin rest of blade = winey black blood red. flagella colorless.

fine clear

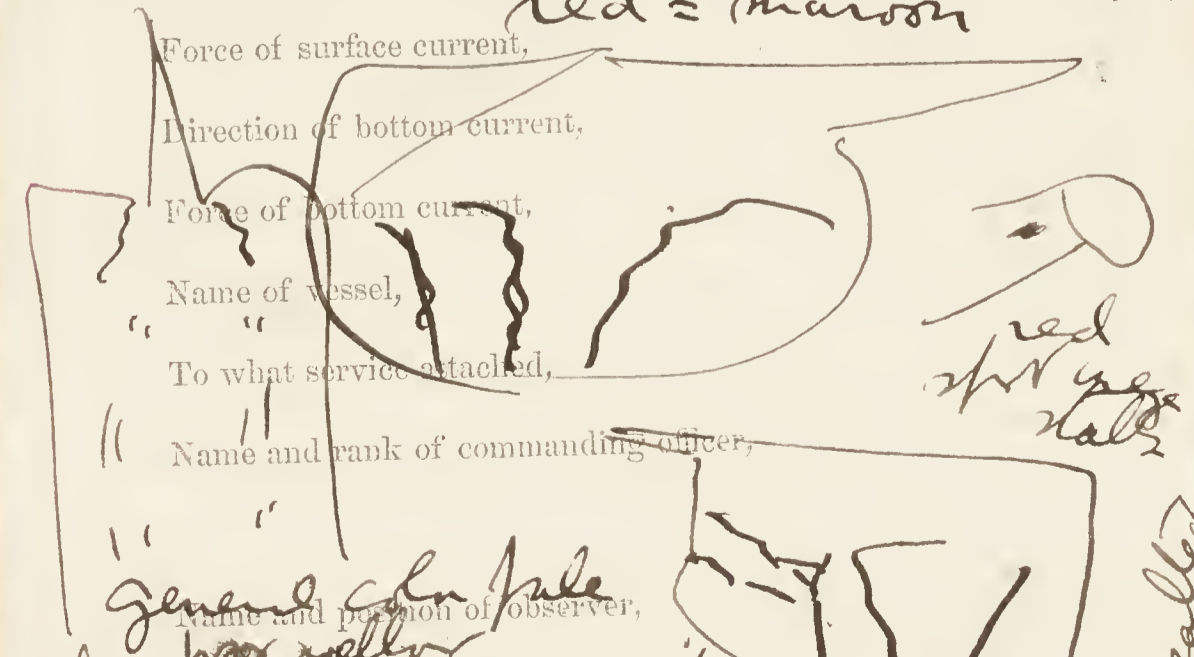
one of three fair sized young of same case same species

Translucent light green

Pea green with a black green line marking ant. margin of 1st, both margins of 2nd, & hinder margin of 3rd abd. somite, other 2 somites behind edges of tail fan & telson margined with Carapace with tracings of blue blue green

Sifts of fingers & articulating margins of joints range ochraceous as one rains Oct. ventral spines spines of chelae blackish brown number given then darker appearance than rest of ground color

Acanthurus vertically red striped in carapace from irregular bands and of which runs forward at right angles to frontal margin red = maroon



General color pale
 Name and position of observer, was yellow
 Chelae pale pea greenish becoming sort of china bluish distally. articulations red spot
 rest of range ochraceous as in distal end of tail fan at base of fingers, both distally stock with rest

of many called.

acanthus continued

REMARKS
lit. numbered sp.

3 stipules spots 2 ant. v
red middle one of midsize
inner margin of antennula peduncle
blue, continued on scale as line
of dots

Shrimp x prox half of fingers
blue articulation of movable
finger ^{orange} ~~orange~~ stomach
shiny tough, otherwise pale
shiny yellow. In dark hair
brown. eye stalks with thin above
round region, back fine, black
with black.

Atya large one dead = a
black green, (over brown + min
blue + little green?) with
light stripe down middle
of back.
small live one, transparent
with small dark green speckles
giving it a dusky appearance
median dorsal stripe spread out
on each side + little irregular
curvature, opaque yellowish white
with black speckled. stripe little white
than live but tail fan as spread
with black line yellowish
spot 2/3 black, speckled eggs
showing trace + articulation
dark color of abd. color of
dead large spec. sides with
more a suggestion of light colored stripe
like in back, but more a sort of mottling.

Tiny shrimps, almost dead transparent
pale blue speckled scattering except on
tail fan which is ~~tinged with~~
margined with pale tawny, its color
blue spots little larger in groups
of four on median line of hinder
margin of eye. abd. white, never
red. pale dorsal blue stomachs

TEMPERATURE RECORD

Instrument used,
Current number of observation,
Date, ~~ant. half of interesting~~ Bay of
under ^{thick} antennulae ~~yellowish~~
same but much paler, ~~the~~ ~~traces~~
antennal flagella even paler +
distally without color, corners
Time of day, black center tide. black spot at
middle, outer clear margins with
suggestion of brown
Temperature of air, (11.5) ^{mid of hour}
in outer
side

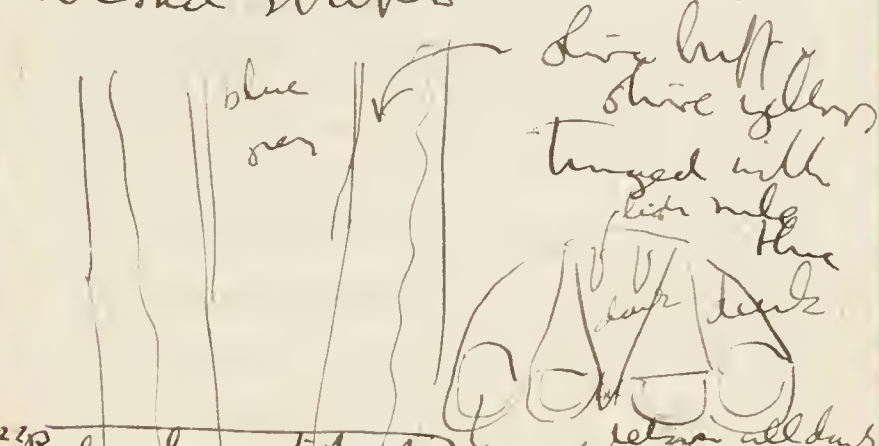
carapace ^{surface of carapace} ~~suborder~~ of legs
only ^{at depth of} ~~at bottom~~ ^{of bottom} appendages
noticeable just little dark colored
didn't notice any of these with eggs

Nature of bottom
with ~~stipules~~ acanthus of this day
with ^{direction of surface current} ~~direction of surface current~~ pea green eggs
with more ^{Force of surface current} ~~Force of surface current~~ thick + heavy speckled
with red ^{Force of bottom current} ~~Force of bottom current~~ joints dark, fingers are
flecked above. specimen with
oblique red stripes

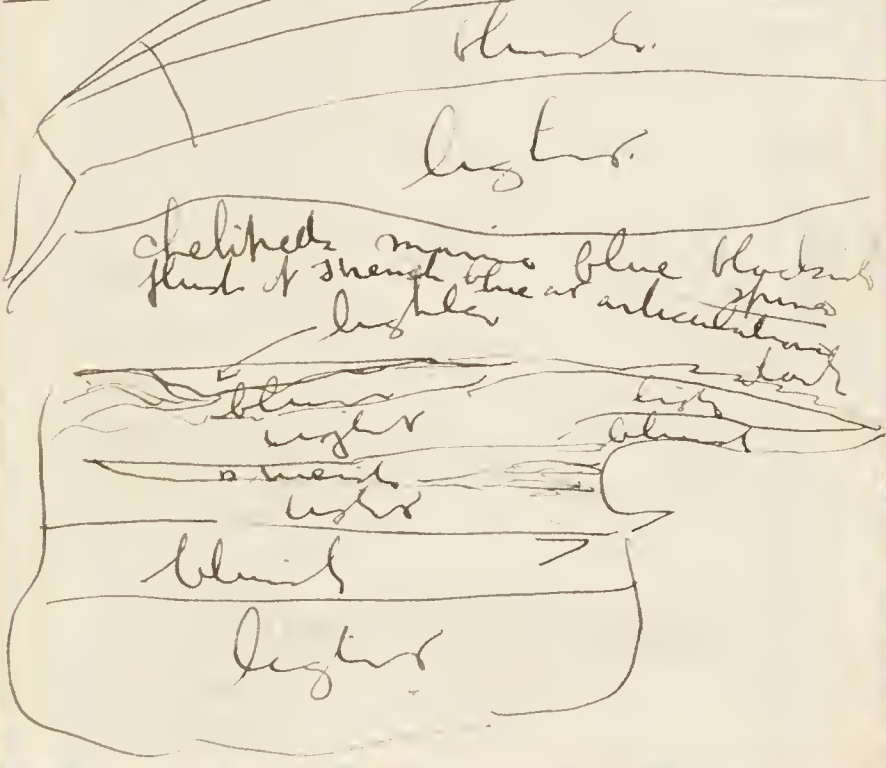
Name of vessel
To what service attached
Name and rank of commanding officer

Midriff of root reddish.
Name and position of observer
Sept. 22 - 1925 #18
water sample taken out in
front of Hotel. low tide
beginning of flood. water 77 1/2° F.
Air 76° F.

#19 Set No. 23 fished
 REMARKS
 same sheen again
 got 2 large *Jamaica*
 are quite a greenish blue
 marine blue x pencil green
 broad stripes



Red color on tail due to partial madder brown
 (mild condition) chin orange edge
 not seen in life's blueish
 these big ones



dark blue above lighter below
 TEMPERATURE RECORD.
 whiteish large

Instrument used, Keel
 Current number of observation, couple of Atya's were
 Date, night in bay with brownish
 Locality, sand + white grains
 Bearings, in it Atya which were
 quite dark green like sand
 under rocks assumed
 Time of day, general tawny olive color
 State of sky, whitish stripe down back became
 Temperature of air, wood brown in middle + cream
 surface of water, luff at water, stripe good 3 m wide
 at depth of fathoms, in largest spec. irregular black 1 m wide
 at bottom, nose a less regular ridge of median
 stripe, rest of animal the tawny olive
 Depth, in fathoms, with mottling of black but not
 much of black
 Direction of surface current, in water mottling = more reticulation
 Force of surface current, of tawny + clay color. spines of
 legs dark like number legs than
 Direction of bottom current, leaves with faint a rinceous a
 Force of bottom current, between legs

Name of vessel, little shrimp of 2 kinds?
 To what service attached, one lot quite trans. with grey
 Name and rank of commanding officer, black markings very little blue a
 green appearing + dragon's head
 Name and position of observer, red stomach almost black = A
 One lot quite greenish with
 dark almost black little green
 stomach + green black the
 markings on back of abd. = = = =
 = B (rest same coloration)

Sept. 24-1925

REMARKS.

Portunid from beach
General color rest of range
green x hair brown. molt

Weeks from coast is from 100 ft

Gallinectes ornatus - porcelain white
max yellow



teeth whitish behind white like tooth + front dragging blood red.

Chelipes largely same as general color of carapace, hair brown x greenish tinge spines nearly all porcelain white their hinder margin + ant margin of carapace between the chelae brown. inner face of hand + carpal articulation dim blue fixed finger all white; movable one white



crab red to scarlet. China blue stippled stronger distally back on nerves to hairy line

paddle large like chelipes margins of joints by articulations. callosity prox half of paddle + adjacent joint white. distal half rest of row venous x gill line yellow. transparent in case of white + yellow of paddle. Underparts whitish.

Sept. 24-25 Thysanura brought me 2 well developed offersi + ♀ of same size + a Jamaicense ♂ + ♀ were of a general Vandyke brown color the males over laid with Bistre or olive

other speckled underneath with madder brown. These days color were general + mottled

TEMPERATURE RECORD.

under all being a sort of gray x cream buff color which showed through in hairy lines on carapace mainly

on sides and on front + 3 d abds. white extending down on sides along

Locality, Bearings, Time of day, State of sky, Temperature of air, surface of water.

to top line of epimera. The lister speck had a blue black (dark) green cheliped; the other black brown feet black

from legs of both marga less transparent of feet suggestion of faint marine blue spotting in bands of second + third. prolegs brown.

♀? " at depth of fathoms more sunset in color marked like miles of blue almost white with few dark mottles of brown on anterior face large chela mottled with large patches of marine blue light on

margin + inter margins + fingers in a faint pea (bluish) green ground portions of 2 miles 1 + 3 behind deep area much darker than any other part of body + blackish

The Jamaicense has long stits of marine blue black bottle green after of Bull but have lateral purple bright yellow mottled like rest brown

yellow on 2 d of wing been green in length of body + subd. Segs china blue mostly chela purple purple light (or sunny purple) with tips of fingers + basal half of fixed one white at distal end of gape + front

red brown mottled spot. Same chela marine blue pointed out to whitish on spines and fixed finger margin of palm curves and short distal part of spines. Telsonate

21* Sept 25 - 1925

REMARKS.

went back to stream to see if I could find young *jamaicensis* but things I looked at the all afternoon + in a.m. of 26 could make much out of lot. Got however 3 fair sized? *jamaicensis* with black cross bands like one also noted under # 18. And one striped like one like we had been offering reward for but not in red-brown. hatched in real. that can be the red ones have just recently shed and the blue-green ones with yellow stripes are about ready to shed. I would say so because in days red-brown does get blue.

offerin great jumps, can sing themselves almost a foot through the air 6-8 high + foot away. and walk as well as 4 footed animals.

* = Rio Taguanduba =
22 Sept 26 - 1925

went back to stream for *pligochaetes*. Soederwall has then all quite a number. Also, incidentally got seven shrimps, one cross banded *jamaicensis* like one under # 18, smallest *jamaicensis* I have seen which I think is that species (But what is the long-banded ones?) Two *acanthurus*, also smallest I think so far rostr + red stripes on carapace definitely identify it. Also an *Atya* with light stripe down middle.

And 3 characteristically speckled *altersii* with dark cross bands on hinder margins of first 3 abd. somites; darkest and most conspicuous band on hinder margin of 3d. with charac. clear transversely rectangular area in front of it.

Sept. 26 - 1925 # 22

Clear sunny day. Water temp in Rio Taguanduba where we collected. = 69.75°F

TEMPERATURE RECORD.

Instrument used, Current number of observation.

Date: Water sample # 22-A.
Locality: Out in front of hotel surface, 1 ft. water.
Bearings: Time of day, 5:45 pm.
State of sky, Air 74° F. temp in front of house = 78° F.
Temperature of air, Water 74 1/2° F.
Surface of water, just after turn of tide.
at depth of 1 fathoms, Tide high just beginning to ebb.
of bottom, Depth, in fathoms, 1.30 p.m.
Nature of bottom

Direction of surface current, H.I. = 8.4 on dark prism.
Force of surface current, Density 1023.5 at 1 ft.
Direction of bottom current, Force of bottom current, of meniscus
Name of vessel, Temp. 72° F

To what service attached, Capt. Wilhelm Theodor Meissner
Name and rank of commanding officer, Villa Bella, Ilha São Sebastião
Name and position of observer, Litoral do Est. São Paulo
Crest of tide at a just before 22°C. Intermittent moon
Ill. = Shr. Clouds.
Townethay at 4 p.m. 22°C. 11 p.m. 22°C. 1 a.m. 22°C.
in front of hotel 2 feet water surface tow

#23 + #24 both Paranaguá, Brazil.
Tide flat collection

REMARKS.

#23 Oct. 2, 1925
Collected ^{very} ~~about~~ Can lam
of bonde of Paranaguá
Got a few small fidalgos
some small thurs they
went all to pieces. The
Crangons in the bottle with
them are part of Oct. 3
collection. which I have
give #24 Oct. 3/25

Things its hard with
while to keep separate
journal of bottles 3 amphipods
are with little Pin. thurs
for Villa Bella white paper
take in my gill net.

The squaring grahroids in both
#s were from higher up on beach
than other crabs in #23 well back
in puddle in almost dry land.
The Portunids are only for #24
Things are separate except for
Crangons & Gylis for #24
which are with #23,

#23 Oct. 2 Clear day few ^{high} ^{tidal}
large clouds ^{sun}

TEMPERATURE RECORD

#24 Oct. 3 Overcast, ^{rain} ^{drizzle}
Instrument used, drizzle in p.m., cloudy
Current number of observations, but clearing it
Date, clears at 12 o'clock
Locality, tide low at about
Bearings, 8 o'clock sunrise
Time of day, ; of tide. later.

State of sky, #24 tide flats off
Temperature of air, last pair to N. at
" surface of water, Paranaguá rocks
" at depth of covered with dead
" of bottom, flour living crustaceans
Depth, in fathoms, on sandy mud
Nature of bottom, flats
Direction of surface current,
Force of surface current,
Direction of bottom current, Paranaguá Brazil
Force of bottom current, #23 + 24
Name of vessel,

~~XXXXXXXXXX~~ Oct. 2 + 3

Got one broad 1925
Name and position of observer, Plawed Uca
this afternoon as took picture of ship. flattened her
out with tripod head. Shown
same place as morning collection.
but in afternoon 2:30 p.m. with high tide

Oct. 6 left at 9.15

REMARKS.

17 dbr
2 families de
Ribeirão de
Bananal.

3 hrs full hour
Arrived 12.30
mangrove mill.

all girls but 2 had to be
opened up after leaving house at
house

2:30 at
after coffee

3:15 To Praia

Grande
Got 5 p.m. started back to
Hotel about 10.30 with 3 other
anyway, one at mangrove mill for
shrimps + other prints + last for milk
to eat. Praia da Enseada

Oct. 6 - 1925.

"25." Air temp ~~67~~ 67 3/4 F

Got a Lepidopa and 1 tiny
Hippa on beach in front of
German house facing light house.
Before that I had got 3 mollusks
at the end,
at house got some shells

At Praia Grande got lot of
Hippas few quite large but
not so large as natives claim
they come.

And a few amphipods, Praia
Grande is across two points of
land behind house.

Sea was very rough + high due
to high winds night before really
should have made trip, but in
town didn't realize force of surf on
outside of island.

(26) Oct. 6. Children at

mill got me 2 crabs +
several shrimps from stream
back of mill. One shrimp
Instrument used
Current number of observation
Date
Locality
Bearing.

was quite young in life looked
like the heads of Trout from
name of land number,
all over clam too.

The largest of the Trichodactyl
was generally (only one alive
near a.m.) a raw remora
Time of day, of tide.

dark on carapace due to
State of sky,
spottings + mottlings chocolate
Temperature of air.

+ mar brown, some on upper
margin of all appendages, weakly
surface of water
at depth of fathoms.

in large cheliped, on upper margin
only; joints + narrow leg, but
Depth, in fathoms,
Nature of bottom,

in case of legs extended, back on
upper hinder face of joints
except in distal end of carpus
Direction of surface current.

carpus + pedipalp + legs almost all
Flaw of surface current
Direction of bottom current.

dactyls however, nearly uniform
raw number, little lights on
Force of bottom current.

lower margin, eye stalks spotted
Name of vessel
Name and rank of commanding officer.

with red brown, mottlings have
more of brown a maroon color
than what I have said above especially
on eye stalks

Other shrimp show color of
Name and position of observer.
dorm, on casual examination
of dead specimens next
day.

São Francisco do Sul
Santa Catarina

#27

Ponta da Cruz ^{São Francisco}

REMARKS.

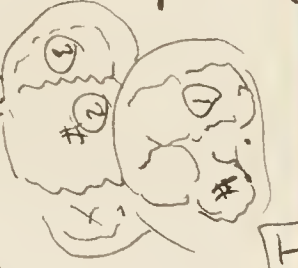
Apr 72

Oct 7 1914

Oyster formation

Point of land north of main part R.R. Sta.

Large rocks for most part covered below high water line with oysters



Got 2 holothurians
One star fish.

Oysters + oyster crabs
2 Gebrás + pc. of rock.

1st shell = Chinese oyster
2nd = shell crabs
3rd = shell crabs
4th = shell crabs
5th = shell crabs
6th = shell crabs
7th = shell crabs
8th = shell crabs
9th = shell crabs
10th = shell crabs
11th = shell crabs
12th = shell crabs
13th = shell crabs
14th = shell crabs
15th = shell crabs
16th = shell crabs
17th = shell crabs
18th = shell crabs
19th = shell crabs
20th = shell crabs
21st = shell crabs
22nd = shell crabs
23rd = shell crabs
24th = shell crabs
25th = shell crabs
26th = shell crabs
27th = shell crabs
28th = shell crabs
29th = shell crabs
30th = shell crabs
31st = shell crabs
32nd = shell crabs
33rd = shell crabs
34th = shell crabs
35th = shell crabs
36th = shell crabs
37th = shell crabs
38th = shell crabs
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40th = shell crabs
41st = shell crabs
42nd = shell crabs
43rd = shell crabs
44th = shell crabs
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86th = shell crabs
87th = shell crabs
88th = shell crabs
89th = shell crabs
90th = shell crabs
91st = shell crabs
92nd = shell crabs
93rd = shell crabs
94th = shell crabs
95th = shell crabs
96th = shell crabs
97th = shell crabs
98th = shell crabs
99th = shell crabs
100th = shell crabs

#27
Density = 1022.2
Temp. 72.5.

Oysters very abundant on rocks. very salt taste.

80-100 oysters gave small quantity of meats + juice. cup =

TEMPERATURE RECORD.

6 high x 6 1/2 cm wide overall, juice drained off, left meats 2 1/2 cm from both edge of cup. meats small + very salty to taste. oysters hard to open very irregular.

in about 90 oysters found 4 prs. and 3 others of which one or two were in shucked oysters and there is one with the amples for.

about 12 crabs in about 90 oysters

The interesting thing is that always found male with each oyster female no exceptions! among all stuff found a male

Kind of legs in 9's at least carried up over back like dromids are very help less outside of oyster do not seem to be able to balance. always pecking to hang on to something with hindmost legs.

Name and rank of commanding officer.

Name and position of observer.

Oct 8, 1925 #s 28, 29, 30

REMARKS
Left at 3:30
arrive at mill
#28) Op. 32 at beach
at beach at

near low tide } #1
low at 11.

Air 72 1/2 3.50 p.m.
Water 71 high tide

Left at 2.45 arrive
Praia da Enseada
28 water sample; Arthropods
#28 molt from rocks at beginning
of Praia } #28 Density = 1025
facing lighthouse. } to top meniscus. Temp. 73°F
São Francisco, Sta. Catharina, Brazil.

#29 at mill again
Collected myself one spider
got another cup shrimps & larvae
be very rare - perspective near
in way to Praia like long rock
São Francisco, Sta. Catharina, Brazil.
Gorse egg brought to me by
Hen Conconi

Praia Utatuba
water from Ribeirão
Bananal
TEMPERATURE RECORD.

#30 Oct. 8, 1925
Instrument used drainage
from ditches near Praia
Current number of observation facing Cifer house
Date, São Francisco, S. Catharina
Bearing, fish and mollusks
and few insects

Time of day, 10:10
State of sky, Oct 10 (II) 61°F air
Temperature of air, 7.50 a.m. in my hotel
surface of water, under sill, sky overcast
bottom, in spring = 61°F
Depth in fathoms, nature of bottom, of stream 61 3/4°F
Direction of surface current, Force of surface current, On under sill in shade
Direction of bottom current, Force of bottom current, bright sun at 12 noon
Name of vessel, #31

To what service attached, Oct 10 Collected along
Name and rank of commanding officer, bank of Rio Negro, above P.R.
Name and position of observer, Bridge where boat of hotel
30 mg is tied. Got insects
and I Conconi did not
get a fish on hook line though
we ran many.

Used small birge net. #32 (made longer haul in river + in bank)
 Oct. 10 Sunday REMARKS.

Collected along tributary of Rio Negro, on Napra, Sta. Catharina side of river, entering above R.R. bridge. More insects & a turned humb. died latter for small spring on bank where I fished. Later on way back to hotel dug into a termite nest, hard sand & clay mound and got a few specimens for Sept. It's not the stuff he wants but it may be of use to him. Collected up a few ^{small} stumps & collected ^{single} ^{ants} present were ^{mostly} ^{two} ^{species} of ants in some stumps. I have bottled lots for each stuff all together (but ^{separated}).

In afternoon collected in holes in brick yard from which days had been dug.

2 o'ring lets me they are flooded during high water in the rainy season.

TEMPERATURE RECORD.
 Date: _____
 Locality: _____
 Bearings: _____
 2 met. & several tadpoles.

Time of day, 12; of tide. #33
 State of sky: #12 Monday

Temperature of air, _____
 " surface of water, _____
 at depth of _____ fathoms.
 8 o'clock this a.m. 66 along shore Rio Negro, Parana side

Nature of bottom, _____
 Female that carried young having both antennal flagella & one st. dila.
 Force of surface current, _____
 Dactyls pale turquoise blue beneath, first pair above too, carapace dark, black bottle green. ^{1st} half of fingers dark, ^{2nd} half legs more or less green above, black abdomen shading out to roof of sea green in second ^{1st} ^{2nd} ^{3rd} ^{4th} ^{5th} ^{6th} ^{7th} ^{8th} ^{9th} ^{10th} ^{11th} ^{12th} ^{13th} ^{14th} ^{15th} ^{16th} ^{17th} ^{18th} ^{19th} ^{20th} ^{21st} ^{22nd} ^{23rd} ^{24th} ^{25th} ^{26th} ^{27th} ^{28th} ^{29th} ^{30th} ^{31st} ^{32nd} ^{33rd} ^{34th} ^{35th} ^{36th} ^{37th} ^{38th} ^{39th} ^{40th} ^{41st} ^{42nd} ^{43rd} ^{44th} ^{45th} ^{46th} ^{47th} ^{48th} ^{49th} ^{50th} ^{51st} ^{52nd} ^{53rd} ^{54th} ^{55th} ^{56th} ^{57th} ^{58th} ^{59th} ^{60th} ^{61st} ^{62nd} ^{63rd} ^{64th} ^{65th} ^{66th} ^{67th} ^{68th} ^{69th} ^{70th} ^{71st} ^{72nd} ^{73rd} ^{74th} ^{75th} ^{76th} ^{77th} ^{78th} ^{79th} ^{80th} ^{81st} ^{82nd} ^{83rd} ^{84th} ^{85th} ^{86th} ^{87th} ^{88th} ^{89th} ^{90th} ^{91st} ^{92nd} ^{93rd} ^{94th} ^{95th} ^{96th} ^{97th} ^{98th} ^{99th} ^{100th}
 black ^{1st} ^{2nd} ^{3rd} ^{4th} ^{5th} ^{6th} ^{7th} ^{8th} ^{9th} ^{10th} ^{11th} ^{12th} ^{13th} ^{14th} ^{15th} ^{16th} ^{17th} ^{18th} ^{19th} ^{20th} ^{21st} ^{22nd} ^{23rd} ^{24th} ^{25th} ^{26th} ^{27th} ^{28th} ^{29th} ^{30th} ^{31st} ^{32nd} ^{33rd} ^{34th} ^{35th} ^{36th} ^{37th} ^{38th} ^{39th} ^{40th} ^{41st} ^{42nd} ^{43rd} ^{44th} ^{45th} ^{46th} ^{47th} ^{48th} ^{49th} ^{50th} ^{51st} ^{52nd} ^{53rd} ^{54th} ^{55th} ^{56th} ^{57th} ^{58th} ^{59th} ^{60th} ^{61st} ^{62nd} ^{63rd} ^{64th} ^{65th} ^{66th} ^{67th} ^{68th} ^{69th} ^{70th} ^{71st} ^{72nd} ^{73rd} ^{74th} ^{75th} ^{76th} ^{77th} ^{78th} ^{79th} ^{80th} ^{81st} ^{82nd} ^{83rd} ^{84th} ^{85th} ^{86th} ^{87th} ^{88th} ^{89th} ^{90th} ^{91st} ^{92nd} ^{93rd} ^{94th} ^{95th} ^{96th} ^{97th} ^{98th} ^{99th} ^{100th}
 Name of vessel, _____
 To what service attached, _____
 Name and position of observer, _____
 Saw two joints of 3d max. top blue.

Second specimen with only one claw. Ischial & basal joints, white rest of legs long & glaucous blue beneath, abdomen all blue beneath, sternum brown, margin

Oct. 12 (#33) cold

REMARKS.

above card + abdomen allie
Bakke x myrtle green ~~trans~~ brown
side + on rest.
Spicks them up by one leaf + the flag
dead all spread out.

largest spec. instead of blue has
flum purple ^{end} stem of blue above +
royal in under parts. stem
and letion practically white with
faint traces of purple.
articulating membranes coral red
Carapace black of bitre with
yaws under on high parts. hands
Indian purple. max part of pedicel
root of buff color. fingers distally
prune purple. Zornig says he has
seen quite red ones.

Oct. 12 (#34) collector
with dip net through Ben

Zornig's garden stream.
Got but few fish + small tadpoles
Doris film by photographs. Sorted at
Zornig's wonderful garden. Visited museum at
Convento fine little place + some rarities. Brazil
is so little known, that you never can tell what
will turn up. Birds, mammals + stone implements
OOO got about a dozen different
sizes of shells to know for each
Big fine collection of ~~and~~ guests. Pictures of mammals
with Rei Temperer. ~~stuff~~ off mounted ~~stair~~ or of Mexico.
how living in Rio Negro.

Oct. 13 #35

Color still
recognizable
Feb. 27, 1940

TEMPERATURE RECORD.

Fish pot. Carapace +
Abdomen of legless dark
Instrument used,
Current number of observation,
Date,
Locality,
Bearing,
Membrane bet. abd + vent
maroon or dark brown.
Says marine or indigo blue
Carapace of helpea grass green
little on distal portion of ~~membr~~ ^{membr} ~~provisionally~~
Time of day, of tide
State of sky, ~~membr~~ ^{membr} ~~of~~ ^{of} ~~hand~~ ^{hand} ~~are~~ ^{are} ~~dirty~~ ^{dirty} ~~cream~~ ^{cream}
Temperature of air, surface of water,
fingers, ~~leaves~~ ^{leaves} ~~legs~~ ^{legs} ~~right~~ ^{right} ~~side~~ ^{side}
Tending distally near tips into
at depth of fathoms,
royal purple; Under parts
of bottom,
dirty cream buff. max faintly with
Depth, in fathoms,
blue. + ~~leg~~ ^{leg} + ~~had~~ ^{had} 2 or 1 abd ~~quite~~ ^{quite}
faint with green + purple like frog
Nature of bottom,
daged carter eggs with paas legs
Direction of surface current,
Force of surface current,
Spinous whitish or concolor tipped.
Direction of bottom current,
Force of bottom current,
~~7-8 p.m. Cast net,~~
To what service attached,
Name and rank of commanding officer,
#36 Oct. 14/1925
at ~~trati~~ ^{trati} rapids above R.R.
Name and position of observer,
bridge at Rio Negro, Guyana.
#36 Oct. 14/25
In other notes in legless ~~see~~
net base.

7-8 p.m. Cast net,
maybe a dozen casts.
#36 Oct. 14/1925
at ~~trati~~ ^{trati} rapids above R.R.
Name and position of observer,
bridge at Rio Negro, Guyana.
#36 Oct. 14/25
In other notes in legless ~~see~~
net base.

37.

Oct. 14
3 4 Aegean in fish pot

REMARKS.

Air 58° F
Rio Negro by fish pots
near bank.
in water 64° F.
1 foot deep

1 smaller of one first stage
all over legs green; legs flushed with
purple dactyls fingers too.
legs purple
under parts dactyls quite auricular
creak purple purple feet lighter than body.
with
2nd stage of the stage quite blue
Carapace both dark blue
green
fingers + ant. half of palm
of one ad dactyls buff
purple blue of other
sea green
short + several underturns
abd. white like ant.
parts of hands + dactyls
green blue one last
+ legs + let. dark orange
blue below of quite white
Must live in crevices, he freezes
then picked up is hard + spread
eagle effect when you try to lift then
not a little prob end just. Rear
quite strongly.

36 Aegea dark ^{plumbeous} little green on back
+ abd. legs white + palms bright green
green absolutely dactyls buff - carapace buff.
fingers tipped + edged with the buff. hairs
at margins of joints and articulated members
dragons blood red. Underparts + let. +
+ last 3 abd. white (these vent under all
plumbeous buff. maxillipeds too.
This was cut net. Oct. 14 night.

Oct. 15 Got 1/2 dozen A.
37a

one had young
one had peculiar swelling
under abd. what is it?
Instrument used, feeding and stuff attached?
+ roots in upper and lower parts.

TEMPERATURE RECORD.

38 Current number of observation.
11 was cut this a.m.

Oct. 16 Boy went down + got
trunk brought me 3 A.

Beings
else yesterday all three were unpaired
lives with touch of blue green, very dark
small over just little muddy + greyish in
nature lines dark distinct hair

Temperature of air
Fingers of hands
margin with orange
shape dark purple light
color not of pushing
maxillae from one spot
at articulation. Dactyls distal half
rather red + orange chroma light. flesh
at beginning green basal half; larger
spec. of surface current, central portion of stem
- touch of cerulean blue? let. + abd. +
folded under and, under side of propods
carapace under side of hands +
maxillae brownish green. Under
parts of propods dark white. Antennae
like black antennae little brown grey
To what service attached,
Name and rank of commanding officer.
Can you tell themselves very readily
laering cold and little was freeze
when taken by key not so big as



39 Oct. 17 Cleared the animal
of Aegea. 9.30 a.m. Air. 72
water 66
Dactyls nothing
not.

Called on Giffis is afternoon.

#40

REMARKS.

Oct. 18 Sunday
By Hacienda Marunby
with Werner hiked + rest.
got couple dozen *Aegle* +
number of insect larvae
Air. 68 water 70?

#41 1980

Oct. 19 Monday with
midstaff to rapids
beyond Smith to about
30 mins in rain return.
got 9 *Aegle*.
Air 67 water 69°F

Get weather Bureau data

Oct. 20 #42 Tuesday

got about 2 doz more
Aegle a few as
large as any I've seen
but still smaller than the
folks here claim they grow.
2♂♂ out in S' eliptical dot
quite largest. 1 male near large size
not as much as 1/4 in shorter in car.
1♂ + 1♀ small to show size diff if any.

Oct. 20	Black boots	3.000
	White	5.000
	+ chub	1.800
	Fish pot	2.000
Dentist		10.000
Auto to dentist + Dinner		9.000

TEMPERATURE RECORD.

Instrument used.
Auto to dentist + Dinner 9.000
Current number of observation.

Wednesday 21 #43 2 *Aegle*
Rio Negro but fish got empty
Bearings.

Thursday 22 #44 2 *Aegle*
Time of day, ; of tide.
in Rio Negro, got one
State of sky,

Temperature of air, surface of water, largest *Aegle*
yet seen at depth of fathoms,
of bottom,

Depth, in fathoms,
Nature of bottom,
Direction of surface current,
Force of surface current,
Direction of bottom current,

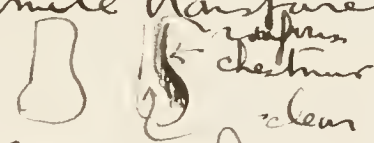

red + less white
lateral stripes only
with half of
shimmering + cut
some level
in carapace

belongs to #45 tiny *Pontonid* in
Name of vessel, *Bruno* of *Gebia*. Long striped with
To what service attached,
Name and rank of commanding officer,
spot markings, leary and part of
Carapace, trans + colorless except for jet black
eyes which look like crangon, lateral stripes
was over carapace + abdomen up + on to lots of
angular pedicels, all stripes with glass =
+ having crumpled white spots arranged in
Latin. *Chelipes* red + white + not at all

✓ #45

Ponta da Cruz
REMARKS. São Francisco
Sta Catharina

Oct. 28 Wednesday
Low tide at about 7 a.m.
Went back to where I got *Gebia*
before to get some pictures &
found such a number & excellent
chance to study them that I have
decided to spend a couple of days
here. Got several *Gebia* &
smallest one, ant. half

each abd.omite transverse chitin
Post. half =  clear
legs colorless
chelicids, maybe ochraceous, upper
becoming more brown with a touch
of olive above & before groove, lighter
below under groove almost white as
in  lower half of fingers
in larger more ovig specimens, brown
bands are wider & when abd. is extended
hardly see colorless areas, telson
distal two thirds brown, remainder almost
colorless.

Carapace of each with brown saddle above
on post. 1/4 light nearly clear on sides
& before saddle stomach, a dark greenish
brown (? brown under & olive) depressed area
a large broad coat of pale olive suff. on
rest of disc yellow, legs at distal ends
of joints & on upper margin with a narrow
line of vermillion. Larger specimens very
brown on dorsum of carapace. almost
the black, at least the dark of Vandyke brown.
greater part of epinota colorless, only
post. 1/4 or 1/2 brownish. Carapace above
same dark brown. Chelicids like preceding
carpus like hand, merus like legs.

TEMPERATURE RECORD.

Chopped per lot of soft rock & got
quite a number of *Gebia*, in first
rock photo, triangular about a foot in
a side & forming rim in the small part of
6 inch thick got 4 pairs (8 specimens)

Then chopped up a more long combed
rock, measured a nice brown female
seen to be in *Gebia* burrow exact
for small hole in water outside of plug
in burrow found males, or at least eggs

Instrument used,
Current number of observation,
Date,
Locality,
Learnings

Time of day, : of tide,
State of sky,
Temperature of air,
surface of water,
at depth of fathoms,
of bottom,
Depth, in fathoms,
Nature of bottom,
Direction of surface current,
Force of surface current,
Direction of bottom current,
Force of bottom current,
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer.

Black mud
50 fms
40 fms
20 fms
pocket for turning
where the bottom
is
This is the
same
but better
the whole
of the
side
of the
rock
& got a
number of things
2 small fish &
just one fish
sponge fragments
we would
not have
just hand
Lepidoptera
specimens

St. Francis
#45
member

St. Francis
#45
member

#46 (29th) Oct } Pontal Cruz
 REMARKS. } Sta Catharina

Combined with 45
 Temp air at 12 noon 71 1/3
 water in evening tide 71.

Good lot more Gebias
 Can stand very stagnant
 water in which all crabs died
 naturally in pockets & rocks where
 they live must be one very bad
 in course of tide.

I found 4 small red crabs
 crabs lying against mud
 wall of tub. The red is quite
 intense & pretty red. & the lateral stripe
 across the epimeron in the strongest
 & most conspicuous.

There were several green
 I have colored them. Bands the dark
 of bottle green pea green speckled.
 finger tips & a little along cutting edge
 ochraceous, hairs fringing telson & lateral
 flagella where they attain & surface fringe
 same color. Commae black.

Port. 3 parts of abd. 2 white
 bottle & large red green on a
 porcelain white ground but not deep
 Only in case of cara & abd. unlike chelae
 is in sheath & white in ground. Port margin of
 telson & tail fan white thin just before the bands
 of blue (faint) then bottle green.

Of the tiny fiddler crabs only
 saw 2 or three holes got
 1 male + female
 also found within Gmagra 3 spec.

Of the Urogebiae the abd. of
 most is bright or pinnel
 orange TEMPERATURE RECORD
 legs white, chelae with flush of
 buff pink or vinaceous pink.

They legs of a pale white; telson
 mostly transparent, stomach
 showing particularly on sides,
 bet. slate + indigo, many have
 carapace & central third of median
 dorsum of abd a sort of slate grey.
 not noticeable in tide
 white plate after some hrs.

Hairs on fore part of carapace, dirty
 cream buff.

Got one at depth of fathoms
 " of bottom.

Depth, in fathoms, with torthless net =
 (46 B) mostly transparent.

most conspicuous thing was
 apple green stomach above which
 carapace was colorless in area
 which & on sides were faint red
 or opalescent, abdomen with
 scattering of red spots, eyes blue black
 legs blue like water milk. Cheliferous
 a maybe maxilliped, among the heavy
 anterior limbs with darker red & one faint
 blue spot below distal margin of ante-

penultimate joint red (dark)
 General red flecks = pretty
 dark red = pretty with dark
 blue spots = azure about
 a crab.

good, inhabits Gebias burrows.
 little red
 in cracks or under

REMARKS.

47 Oct, 30

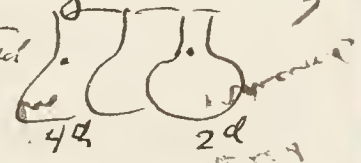
Went back & collected in rain.

got fiddlers out of sand near shear just one little piece

Fringer of large delta white, outer side of palm + carpus + some little distally flushed with ochraceous, in some spots about lemon yellow, which is color of legs; back slaty + green mottled.

* note above on Green Crangon

Black spots as indicated on 2nd + 4th spines near hinder margin before articulation



48

TEMPERATURE RECORD.

Oct. 30. San Francisco.

large day before ship sailed

Instrument used,

Current number of observation

Date,

R. R. Dutcher

Locality,

Bearings,

Fisher mass F.W.

Time of day,

State of sky,

Temperature of air,

surface of water

at depth of

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

Sept 30th went with me he picked up lot of stuff I had gotten before but I saved it as I had to throw it away.

Thurs day Nov. 5 { Quiet day }
 #49 REMARKS: { very day }

Collected at rocky point
 at end of Praia da Sora
 toward bridge but mostly
 on rocks at end of
 Praia / 8:30 a.m.

Air. 71° F
 Water sample Water. 71 1/2° F.
 Tide nearly at just before slack.

3 Palaemonis seen four in
 shallow water about rocks.
 over sand water about a
 foot deep; just happened
 to see them moving and I picked
 up crabs. Had to see apparently
 before sand bottom.

1 of Palaemonis was in sea
 weed with amphipods, when I
 scratches up weeds he tucked
 out fishy him + other two with red.
 Amphipods thick in ulva. *Sagitta*
Pluteus

two amphipods one in road home from
 Praia, other among leaves of trunk
 above rocks.

In way back collected graptoids on sides
 of (sewer?) small stream into which tide
 backs. got lot all sizes

Palaemon faintest kind of trans
 lancy **TEMPERATURE RECORD.**
 under margin
 of abd. somites, with row of bristles

Instrument used *Hand lens*
 Current number of observation. *mixed with*
 Date *raw under across* 12-15 on 3 d
 Location *chrom*
 Bearings. *yellow spots*
 Time of day. *margin with color of tide*
 State of sky. *near Dunder margin*

back of rostral teeth + carapace
 with dark lines as shown one
 under eye extends along anten-
 nular peduncle. Tail also
 margin with color like abd
 somites + carapace stripes
 Nature of bottom. *Deep China blue darker on upper margin*
 Direction of surface current. *distal*
 Force of surface current. *fingers with quite a convuls*
 Direction of bottom current. *red band of orange or rackets*
 Force of bottom current.
 Name of vessel, *BB*
 To what service attached.
 Name and rank of commanding officer.
 Name and position of observer.

lost a nice vial of ascidians,
 + though I went back just before
 dinner and looked high + low
 couldn't find it.

#50

Nov. 12-25.

REMARKS.

Prado with F.F.
a.m. 4 F.V. fish
water for mudlog + log
for log.

Shear = Arroyo #2 Borda
Miguelete

Volto Vuelto

Bamada = Lapas.
from Lepas?

TEMPERATURE RECORD.

Instrument used,

Current number of observation.

Date,

Locality,

Bearings.

Time of day, of tide.

State of sky,

Temperature of air,

“ surface of water,

“ at depth of fathoms,

“ of bottom.

Depth, in fathoms.

Nature of bottom.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current.

Name of vessel,

To what service attached.

Name and rank of commanding officer.

Name and position of observer.

✓ About hundred riders on way to Malheur.
REMARKS.

County is like Kansas prairies flat & undulating but very nice & green & though flat well watered; trees appear in clumps & may have been just have been planted. People the common people seem more upland than run of Brazilians or do I imagine it.

Felip. is station of what did he say ^{with 18} 18 years ago? Old sea calf was out has bridge a house

Day hot as blazes.
Boys & many men run around all day with long lines dusters of mud & ~~straw~~ duck.

Grapoids under rocks & #56 Nov. 16, 25 continued in seaweed on mats in water or where there was water. tide pools etc.

Syngia common under rocks some very large ones among them, got only one or two for specimens

~~TEMPERATURE RECORD.~~

- Instrument used,
- Current number of observation.
- Date,
- Locality,
- Bearings,
- Time of day, ; of tide.
- State of sky,
- Temperature of air,
 - " surface of water,
 - " at depth of fathoms.
 - " of bottom.
- Depth, in fathoms,
- Nature of bottom,
- Direction of surface current.
- Force of surface current,
- Direction of bottom current.
- Force of bottom current.
- Name of vessel,
- To what service attached.
- Name and rank of commanding officer
- Name and position of observer.

Nov. 13 Friday

REMARKS

#51 5.35 - 5.50 a.m.

#51 (= #1 Instituto de Pesca)

2 small crabs one with madder brown eggs
1 isopod + several Pasiphaea

1 isopod Isopod

2 crabs 1♂ 1♀

8 Pasiphaea Pasiphaea

1 Xiphopeneus Xiphopeneus

1 Peneus setiferus

Peneus setiferus 5 species

51 } Crustaceos

52 } all combined

53 } number of Pasiphaea

54 } Chimaerae kept

shells in stomachs saved some

Callorhynchus callorhynchus L.

↳ Gronovius for Bon.

"Gallo-Quimera" 1754

#51. TEMPERATURE RECORD.

Instrument used, C thermometer on ship.

Current number of observation. # 1.

Date, Nov. 13 1925

Locality, E. Isla de Flores

Bearings, (Approx 6 millas) Approximately

Time of day, ; of tide,

State of sky,

Temperature of air, 19°5

" surface of water, ~~19~~

" at depth of 7 fathoms, 19°5

" of bottom.

Depth, in fathoms, 7 brazas 7

Nature of bottom, barro (mud).

Direction of surface current,

Force of surface current.

Direction of bottom current.

Force of bottom current.

Name of vessel,

To what service attached,

Name and rank of commanding officer.

Name and position of observer.

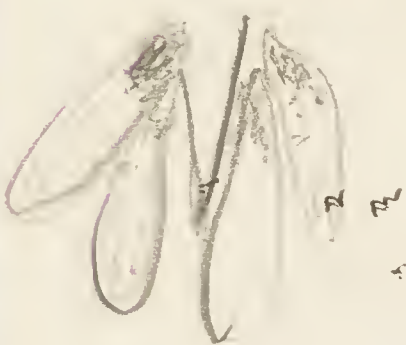
Color of water green

REMARKS.

✓
Pazfluo cated
Corona +
Porch
(mid shift man)

Pazfluo tail

Carime not
taken but
bases of ~~mouths~~
in spots. little
distally



Chimaera

at 2.00 p.m.

A.I. (8.15)

Sample of water saved

#52 = (#2 Instituto)

TEMPERATURE RECORD.

Nov. 13, 1925

Instrument used,

Current number of observation,

Date,

Locality,

Bearings, E.N.E. Isla de Flores
(Prose 7 millas)

Time of day, 9 a.m. : of tide.

State of sky,

Temperature of air, 22.0

“ surface of water,

“ at depth of fathoms,

“ of bottom, 19.5

Depth, in fathoms, 7 1/2 brazas

Nature of bottom, barro.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

Water saved.

#54 # 4

REMARKS.

Sta 3.
E. Isla de Flores (about 4 mi.)
8 fms. land
Air 26° water 20° 5
Verde.

#55
Sta. 5. (= 55) #55

S. of Isla Flores
about 5 miles
land
Air 26 water 20°
Verde 2 P.M.

#55 Density 1006.51
Temp. 70.5 or 6°

#53 = # 3,

TEMPERATURE RECORD.

Nov. 13, 1925

Instrument used,

Current number of observation,

Date,

Locality, N. E. Isla Flores
Bearings, (Approx. 5 millas)

Time of day, 11 ; of tide,

State of sky, Cloudy

Temperature of air, 24°

surface of water,

at depth of fathoms,

of bottom, 19° 75'

Depth, in fathoms, 7 1/2 brasas

Nature of bottom, hard

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

Watacola Verde

#56 Nov. 15, 1925 #56 Excursion Train

REMARKS: Hotel fueled to Maldonado. As I asked called me at 29. I + I had at most of my jacket to star. F. came by in taxi at 5 to 6. On way train first they changed over to a very crowded one; these people hold seats right + left + it's hard to get an unoccupied one. Ex. all girls it seems but very few good looking ones look like. Don't know who the train starts but there seem to be two sections standing on the tracks.

Such a jumble, & I can't understand a word right or left. Car we are on sort of buffet car four folding seats opposed or dining? at end in side to note lot of tables in, behind a little counter. I thin ones.

the young monks are walking up + down outside walking to the car. Skirts aren't so short as in Brazil.

A priest with bloody hat accompanied by a Dominican had green ribbon in hat. Every body at least all women clapped hands when he went by + had some smiles + nodded to coaches right + left of train. The main black mass are common here as in Brazil.

In the midst of leaving hotel got catch on my head instead of hat. Glad I dressed + took my old clothes + shoes along. The world didn't have let me about the case. This is a regular Sunday excursion in very sense of the word.

There is a special catholic excursion on, two + girls have tied green ribbons around head. was note in paper about arrangements for the day. Arrived Maldonado 11 a.m.

To auto to Juan. 30 each, walked to Burnett's for lunch. ate lunch checked for a ride with taxis to Punta del Este wanted 3, 4 + 5 ea. higher than next one. tried here + there but to again finally asked police man outside of church + told us of a man of 100 per

head + return + two hr. stop. Punta del Este looks like a good place, + we will go back for Fri. Sat. + Sunday of this week. got a few things.

#56 Punta del Este #56

Instrument used. Density 1014.00
 Current number of observation. Temp. 70.5 or 6.

Came back to church. Service going on fine. most people filed out.

F. wanted drinks we went across park for upstream Uruguay club was dancing. back in park fellow was speaking. stars + bands utter noises. (Couldn't by any pictures, but unlike Rio Negro most came in

quite early dunes house with thick thatch. (Can almost tell part of country by percentage of house that)

Sight of Punta del Este Maldonado light. Camera got bluish + I took today 4th in case fortunately.

Did Curamba when I told him I was not going to be in washing water complex at about 3.33, tide just after turn turn well marked. Broke thermometer.

old but not he had learned English in last three months + that I was sure H. Smith had written he know no English. but I said why he doesn't know now. Good philosophy when you write it.

On train del. would stay in great, crowded or did not. Train was due to start back at six hours, started yet at 7 p.m.

Beer 504 Boy 209
 Auto 609 the 39
 go back to 51 Auto 100 round trip

57 Nov. 16, 1925

REMARKS

Ret'd to hotel from Maldonado at 11:30 left again at 12:30 for trawler. Net was put over in a.m. but I was sleeping roundly at hotel night before I only slept from 2:00 to 4:30 didn't wake me till 25 mins of 4 so I am thankful didn't see sleep night before have everything before I went to bed. It made me miss a couple of good tows hauls in a.m.

Very large haul of this about 3 times what I saw on Friday last. Sawed 1/2 doz. Callinectes fish.

Little *Discus* *Coronata* + *Pescadilla*.

57 water temperature 3 9 a.m. air 9.7

Second good haul only 1/3 size of first both start 2 1 mi inside one night after the water couple raised bottom five arms reach muddy. = 5 fms. H.I. about 9 a.m. = Ph. 8.4 good test. contents speckled shreds? = fishes; water worms. *Pescadilla* small equalid + *Pomphili* = *Pastinaca* *Coronata* = shells.

57 Density 70.5 or 6 1011.1

Pescadilla = *Moray* = 29 cm. long.

TEMPERATURE RECORD.

Instrument used, *Moray* had 1 big *Pescadilla* inside 29 cm. long.

Date, Small flat shark sword had shrimp inside.

Bearing, *Pescadilla* same *Scemolera* tells me the glut them rather with *Pomphili* *radachia* in season.

State of sky, *Coronata* eat shells like rat fish.

Temperature of air, *Palometta* eat shrimp.

surface of water, Skate worms of which a few fragments were saved.

Depth, in fathoms, # 57 Applies to two hauls

Nature of bottom, Direction of surface current, Force of surface current, Direction of bottom current, Force of bottom current.

When I hauled *Chimera* and of ice (out of box pushed in ice) a one of large was found two pieces of which I thought was *Spur* and mouth, though measure of bands lips or lining of mouth had roughness off. *Discus* of waste paper had thrown it to one side later when I got to bottom of box realized what I saw another in ice that they were parasitic worms. When alive were thin, thin transparent (= translucent) body. *Pomphili* marks made me think of pictures of glass larvae of eels.

#58 ^{Should be 1815} Nov 17 1925
 Nov 18.15 REMARKS. S.E. Pontón Páro
 Banco Inglés ^{3 mi}
 7 a.m. 7 1/2 fms. mud. Density 1012.10
 70.5
 Air 20° Water 20.25
 Water green.
 = sta #1 of Inst. Becu for the day

A.I. = 8.8. 530-6
 Tow net haul yielded many
 stenophores, interfere with
 haul. From large shark took
 two isopods from
 saved few fish. hinder dorsal fin
 Pc. of albatross came
 up off ~~Boya~~

#59 Cut open number of doz
 fish got from them + worms
 + mollusk + 1 young dog out of squid
 sperula small
 mollusk 2 got two crabs found 2 square
 sperula out of another
 " 2 spots of crab legs out of
 another
 Saved Corvina stomach full of
 eggs.
 Pcs Bryozoa / off / of / other boards

#59 Pescadillo did not have much
 of anything today
 ditto sting ray +
 sea robin

#59 = (#2) Nov 19 1925
 9 a.m. S. Pontón Páro Banco Inglés
 (Approx 10 millas, 7 fms. mud bot.)
 Air 20° Water 20.25
 TEMPERATURE RECORD.

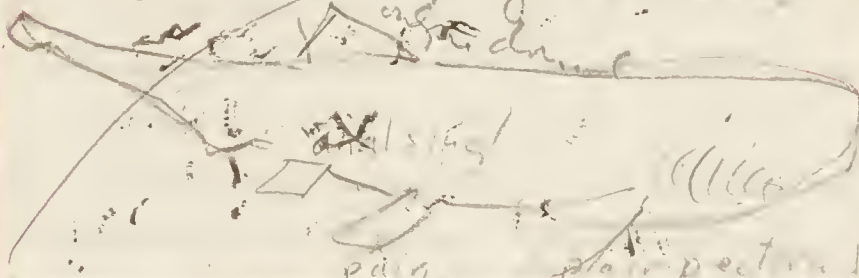
#60 (= #3) 1 p.m.
 instrument used.
 S. Pontón Páro Banco Inglés
 Current number of observation.
 (Approx 15 millas) 8 fms.
 Date.
 Locality. barra
 Air 21° Temp. water 20.25
 Bearings.

#61 (#4) ~~castro~~
 Name of vessel; of tide.
 E. Pontón Páro Banco Inglés.
 Temperature of air, surface of water, at depth of fathoms,
 8 1/2 brazas barra
 Air 21° surface of water, Water 20.5.
 " at depth of fathoms,
 Verde
 " of bottom.

Depth, in fathoms. Got two Corvina the gra
 Nature of bottom. One at first haul out
 Direction of surface current. 2 1/2 feet by one at last
 Force of surface current. Haul 4 feet long.
 Direction of bottom current.

Force of bottom current. Larger spotted sharks
 Name of vessel. had much digested fish frags
 in stomach, of longer fish in
 Name and rank of commanding officer. all but one. One none were
 fragments recognizable.
 Name and position of observer.
 Sort of holly on way back to
 Interider.

62. *Panula caneta*
 Nov. 21, 1925
 4.30 p.m. few crabs
 amphipods & isopods.

Med. development in terms
 of length of yellow labellae
 large size 17 gill slits


63. Nov. 24, 1925 H.I.
 8.41
 5.45 - 6.30 a.m. Townet
 already for *Torpedo* sample
 light Density 1.01309 Temp. 77.54
 lab.

Shark 4 3/4 long
 1st gill slit 5/8 from snout
 beginning of pectoral nearly 7/8
 beginning of dorsal 3/8
 upper lobe of tail
 base 1 + 1/2 + 1/3 + 1/4
 only one little dorsal
 animal got black spotted
 white below.

63 (#1)
 Nov 24 / 1925
 TEMPERATURE RECORD.
 hora siete
 E. Isla de Flores
 Instrument used, (Ahmed 4 millon)
 Current number of observation,
 Date, siete horas
 Locality,
 Bearings, Sur
 Air 19° water 20°
 Time of day, meride of tide,
 State of sky,

Temperature of air, (#2)
 surface of water,
 at depth of fathoms,
 Nov 24 / 1925.
 Depth in fathoms, nueve
 Nature of bottom, N.E. Isla de Flores
 Direction of surface current, Ahmed 6 millon
 Force of surface current,
 Direction of bottom current, Sur
 Force of bottom current,
 Name of vessel, Sur
 To what service attached, Air 20° water 20°5

Name and rank of commanding officer,
 Name and position of observer,
 Put one oyster dredge twice at con-
 clusion of other haul put over oyster
 dredge in 7 fms. for 2, 4, 10-15 min
 hauls. got very soft mud, worm tubes &
 clams, + 1 shrimp (*Diplopenaeus*).

#65 REMARKS. Nov. 25 - 1925
 Water Temp. 22.5 C
 11.35 a.m. Density 1000.05
 Temp. 64°F
 Boat house Ph 76.5
 3.53 p.m.

3.53 one oar from bridge about
 #66 about rocks + roots
 of grasses 5 p.m.
 #67 few amphipods.
 Nov. 25, 25 = #67 1st haul day
 Made about 4 boat dredge
 hauls in river channel
 below bridge all same
 sort of stuff, once when
 net was empty it had
 a couple of branches of
 dead trees juncr coated with
 barnacles of which we raised
 a few sticks. one of them
 hauls had a number of
 flat graboids in them
 The depth was bet 3-4
 meters. water was very
 turbid + bottom was soft
 black ooze.

Barru Santa
 #65, 66, 67 Sucrea
 Uruguay
 Inland Fernandez
 Nov. 27 Thomsen brought
 me in a few eglea +
 amphipods

TEMPERATURE RECORD.
 Instrument used, []
 Current number of observation, []
 #68 (on transfer of
 Just de Lexa 1.)
 Date, Nov. 28, 1925 } Made tow
 Locality, } net haul
 Bearings, } 4.55-5.10 a.m.
 Time of day, 7 o'clock a.m. }
 Bancor Arguimedes } see #69
 State of sky, 7 Brazas, brt = barro
 Temperature of air, Air 17° surface of water, water 18° 5'
 water color = barroso
 of bottom, (2)

#69 (2) 9 a.m. Nov. 28, 1925
 Bancor Arguimedes }
 Nature of bottom, 7 1/2 Brazas brt = barro }
 Direction of surface current, Air 17° water 18° 5' } and dec
 Force of surface current, water color barroso } shell
 Direction of bottom current, Got many a pumpkins } with
 Force of bottom current, } bryozoa

#70 (3) 11 a.m. Nov. 28, 1925
 To what service attached, 7 1/2 Brazas brt = barro
 Name and rank of commanding officer, Bancor Arguimedes
 Name and position of observer, Air 18° water 18° 5'
 water color barroso }
 # very muddy. } Very rough day
 } Loyel sung sick in part.

#71 ~~Dec~~ REMARKS.

Dec. 1st. 1925

In little tributary to
Arroyo Miquelele in
the Prado. Tried to catch
big Aeglea with hook net
& meat but caught only
a little one, main stream
very muddy. Tributary
clear & very shallow.

Temp. of main stream 28.5°

got about 3,000 bottles nearly
full all sizes from medium
to small but large ones are
the one said to equal Idich's
find.

Went with Tremoleras.
Aeglea thick under grass &
leaves in water especially plentiful
probably due to lunchroom, meat
remains thrown in stream
by picnickers.

TEMPERATURE RECORD.

Instrument used,

Current number of observation.

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water.

" at depth of fathoms.

" of bottom.

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer.

Name and position of observer.

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation.

Date,

Locality,

Bearings,

Time of day, ; of tide.

State of sky,

Temperature of air,

“ surface of water,

“ at depth of fathoms,

“ of bottom.

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current.

Name of vessel,

To what service attached,

Name and rank of commanding officer.

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,
Current number of observation,
Date,
Locality,
Bearings,

Time of day, of tide.
State of sky,
Temperature of air,
 " surface of water,
 " at depth of fathoms.
 " of bottom,
Depth, in fathoms,
Nature of bottom,
Direction of surface current,
Force of surface current,
Direction of bottom current,
Force of bottom current,
Name of vessel,
To what service attached,
Name and rank of commanding officer,

Name and position of observer,

✓

REMARKS.

Two largest grasshoppers from
 Olha Govenada Aug 27, 25
 backs a dirty black with
 cinereous markings and
 lavender grey blotches
 branching region where
 thighs of hinder legs fold
 over their eye stalks and
 legs what I would call
 a mahogany red with black
 brown spots (meri)
 of all but last two pairs
 of legs with whitish spots
 maybe pencil gray. Red is
 almost crimson x orange
 shading off in bases of palps
 to saturn red to primrose
 yellow to nearly white



red saturn red
 primrose yellow white distally

I turned down part
 bet. eye stalks real dark
 deep red like eye stalks.
 Propodi of walking legs sort
 of ochre yellow as is
 all joints of legs of 3 mulls
 tawny except meri which are

color of backs this is more
 amber than in large spec 3
 2 after meri, not last two
 joints more white blotches
 than in large specimen
 Cheliferous colored same
 as is large ones. Under
 parts yellowish like
 hands. which color
 runs over to prox half
 of under side of meri
 of walking legs & entire
 under side of cheliferous

18 de Julio
Requena de Murcia 1860.

C. de S. de M.
No. 15
A. de S. de M.

Dr. Garibaldi. V. Dehincenzi
 Annali del Museo Nazionale
 de Montevideo. Ser II, Entrega 4
 pp 97-138. Montevideo. 1928

Sept 19. Choc 4.200	25 shells can 300
Oct 8.500	Boys
1.800	Can
10.300	Can. human
5.200	Fishers
2.000	Boys
300	Boys
300	Boys
15.000	Boys

Kurt Faber: Rund um
 die Erde
 1869
 No. 11 Jan. 1924

One heavy ^{2 left} ^{of gloves and} ^{one over other} ^{for better protection}
 for grabbing crabs under
 water & under rocks
Canvas buckets
2 at least

- Trays to fit sieves & vice versa
- chest spigons 1/2 doz (10 gal sieves in line)
 - 1 of 2; 8 gal. tanks
 - 1 chest equip ment
 - Boat photo. equip. + few extra bottles
 - standard 5' x 10' with tanks. not antique? with extra
 - Boat dredge
 - sieves + trays
 - tools
 - Boat
 - mic. nets
 - ditto nets with divided handle + several nets to bottom as also trays
 - Canvas buckets
 - stern net

M. Meheut \$40
 Étude de la Mer
 Faune et Flore
 de La Manche et de l'océan.
 Texte par M.-P. Verneuil
 Preface par M. Yves Delage.
 (Nouvelle Edition)
 2 Vols. I + II
 Editions Albert Lévy
 Librairie Centrale Des Beaux-Arts.
 2, Rue de L'Échelle - Paris
 1924

