Dr. William H. Longley
Dr. David Hill Tennant
Wm. Randolph Taylor
J. M. Valentine
Paul Conger
Harry N. Miller
Dr. Caswell Grave
Dr. Albert Mann

Dr. H. Boschma
Dr. H. V. Wilson

Bartsch - last two weeks
TORTUGAS - 1925

May 30-31.

Spent night at Over Sea Hotel. Had nice, third floor front room with Conger for $2.50 each for the night. Longley paid for meals at Victoria Restaurant. Had with Conger 35¢ worth of ice cream each at Curry's.

Fare $63.75, of which $15 = sleeper. Station check $.10, porter $.25 Friday dinner enroute $1.50
Breakfast, Saturday, $.90
Car porter $.50
Baggage check $.20
Sandwich & milk $.25
Ice cream $.35
Gator farm $.30
Carfare $.30
Lunch, Saturday, Jacksonville $.90
Station porter $.10
Saturday dinner $1.50
Sunday breakfast $.80
Car porter $.35
Papers $.20

June 1, 1925.

Trip down was uneventful, with Dr. Mann and Conger. Dr. Mann is the best sort of travelling companion, and a joy to be along with.
June 2, 1925. Tortugas

#25-1 (had June 1 on label).

Collected with Conger and Miller on and in front of first rocks below Lab. pier, west side of Loggerhead.

1 large *Mithrax hispidus*, found under large rock which I overturned.

Miller got a lot of *Clibanarius tricolor* and *Calcinus tibicen*. Some amphipods and isopods washed from sea weed. A number of *Mithrax coryphe* from holes in rock.

The fauna of the first rocks and in the eel patches off of them certainly seems richer in point of numbers than last year. The small sea urchins planted here have reached a good size, as large as any that Tennet used in his experiments last year, which Dr. Longley said indicates a year's growth. Can it not be that it is the second year, the small half-dollar ones being one year old?

Valentine brought in an Ocypode from the beaches.
June 3, 1925.

#25-2. Went out tow-netting with Dr. Mann and Conger. Got a lot of pelagic stuff—copepods and Lucifer, which was not represented in last year's collections. Taylor brought me a *Mithrax sculptus* from the Fort and a *Callinectes*.

#25-3. In afternoon went down on rocks about west side lighthouse pier and did some collecting, mostly *Mithrax coryphe* and *sculptus*. Looked through 8 Pinna shells, but got nothing. In evening, after supper, scattered Pinna bodies on sand in cove at north end of Loggerhead key and saw one *Hippa* burrow in sand with pc. Found a *Hippa* by strewing remains of Pinna bodies along beach in little cove at north end of island. Shortly afterward saw a small one scuttle into sand where I happened to be looking, but not near any Pinna meat so far as I could see. I scooped up a double handful of sand, and there I had it; put it in a baker and there I found it.
June 4, 1925. In Laboratory

Will stand quite a lot of poking to antennules, which are white just color of coral sand. Back is black speckled, so that when exposed looks like white sand and black interstices. If touched from behind, rotates backward; in much bothered cases making a complete revolution so that it heads other way. Seems almost, if not quite, incapable of going forward; sickle-shaped dactylar terminal joints of appendages all working in rotation and alternation quickly bury animal. Often just antennular flagella only exposed; and after little space with eyes and antennular peducle sticking out. Shifted position twice in 45 minutes.

Fooled with animal again. No matter what I do, will not go forward. It certainly looks as though it is incapable of forward movement. For a full minute poked and shoved and put glass rod on tip of antennule, twirled it on the point. Did not respond, but as soon as I took hold with forceps (but as long as I didn't pull, didn't mind) and gave a pull, it backed up and pulled entire body back and under. When the antennules lie on ground, look just like straight edge of broken shell.

Four minutes of nine pulled under. At 11:15 still couldn't find it; still so at 2:00. Found antennules out after return about 4:30 from collecting.

June 13 [sic]

Yesterday I noticed particularly that the animal used a sort of circular motion in trying to dig in; hadn't noticed it before. Maybe used this method because weaker. Other one died three days ago. Would spin itself more or less like a wobbly top on hinder end in getting under sand, especially where thin over glass bottom.
June 5, 1925

#25-4. In lab in morning. On Bank Key reef in afternoon, 2-5. Got some amphipods and isopods washed from eel grass debris brought up in seine in 4-4 1/2 feet of water.

On Bush Key reef got a little white dromid, light creamish-white, with light salmon tipped fingers, eyes dark, almost black brown, alga on back light malachite green. Little crimson-burnt carmine red Portunid on bottom of overturned rock. Tip of rostrum and x areas white.

Can this be a Stenopus laevis?

All rest, including eggs, except finger tips and basal part of eye stalks crimson x burnt carmine.

Antennal and antennular flagella distally white, basal half with distant bands of reddish basally suffused with red.

Walked to south end of island and back with Longley.
June 5, 1925

Helped Dr. Longley open up fish stomachs most of forenoon, dynamited fish from just inside of reef.

Worked on them in afternoon and again morning of 6th. Got some very interesting things, a Pinnotheres depressus and Processa that I hadn't seen before. In all, found four species new to fauna.

Worked at stomach contents until dark and missed a most beautiful sunset. Walked around lower half of island with all except Dr. Mann.

June 6, 1925.

#25-5. Bird Key reef in afternoon. Fish stomachs all morning.

June 7, 1925

#25-6. Another batch of fish stomachs; worked at them all day. Went over on Bird Key reef again; tried a few pictures of reef and Fort on way back to supper.

June 8, 1925

Worked on fish stomachs all day. Took couple of photos and sorted over a bucket of algae for amphipods all afternoon.
June 9, 1925

Put up another (3rd) lot of fish stomachs for study. Took most of fore¬noon, after writing letters to Al., Clarence, and Bryant before breakfast

June 10, 1925.

Dredged with Dohrn. Left early, before 7:00 a.m. Passed buoy at 8:00 a.m.

Haul #205
Boat dredge
30-31 fms.
9 mi. S.

at due S. of buoy, east side channel. Put boat dredge over
at 9:30, up at 9:45, 30-31 fms., No. 2 buoy, about 9 miles South.
Fine sand, washed out shell fragments.

Haul #206
Boat dredge
35-37 fms.
10 miles S.

Boat dredge over at 10:10, about 10 miles south, 35-37 fms.
Coarse sand, bottom rough, with many Bryozoa. Got a Holoma-like
that I thought at first was a Cymopalia — Ethusa mascarone
americana.

Haul #207
Boat dredge
37 fms. About
11 miles S.

Boat dredge up at 11:00 a.m., 37 fms. Sponges galore, Bryozoa,
and shelly sand. Pail full of sponges; kept for sorting over.

Haul #208
Boat dredge
11:50

Boat dredge out, about 12 miles south, 50 fms. Soft grey
ooze; quite cold to touch, much colder than quite warm water.

Haul #209
27 ft. otter
trawl.

Try out of otter trawl, about 12 miles south. When put out,
death was 50 fms., at end of haul 87 fms., but net did not touch
bottom. No catch except a mashed salpa or two and one curious-
looking siphonophore twice length of my thumb and about same
diameter. Seemed to be made up, as it were, of a series of nested crowns
with strand of reddish through middle with little humps of red
attached, but not appearing as conspicuous or many as in preserved
spec., which for greater part has broken apart and separated.

Had some trouble; one chain had become wrapped around lower
hinder eye bolt. Fixed this and it fished fine.
June 10, 1925 - Continued

Haul #210  Tried to get otter trawl (27 ft.) on bottom at 87 fms. sounding, 27' otter trawl but it was let out so slowly that by time it was hauled up we were about 13 mi. south in 45 fms. as sounded at end of haul. Very rough bottom. Gorgonians, crabs, and Bryozoa, few algae. Net was stripped for better part from cork and lead lines and latter was broken. Bottom was too rough for character of net. Hauled net up and got home by 7:30 for late supper.

June 11, 1925

Haul #211  Second and last day's dredging with Dohrn for 1925. 9:20 -
Boat dredge 10 fms. 9:30 a.m., first of three cross-channel hauls from black, mid-channel spar buoy to east channel red buoy. From S.1 to N.2. Muddy sand, algae, chiefly broken Halimeda, few living shells, 2 Parthenopids.

Haul #212  No crustacea. 2nd cross-channel haul, 10 min. tow up at 9:40. Boat dredge 10-8 fms. Ran from 10 fms. at end of previous haul into 8 fms. Muddy sand of very firm consistency.

Haul #213  Third and last cross-channel haul; at end was 5 fms. No more hauls made because ground could be covered with launch if necessary. Rocky bottom to which was attached lots of Gracellaria (Amphioxus), long slender alga.

Haul #214  Ran 40 mins. south of Red No. 2 buoy. Net towed from 9:55 -

Haul #215  In 18 fms. net towed from 11:20-11:40 a.m. Great mass of algae, several buckets full, matted tangle; had quite a number of broken coral rocks. This kind of bottom is what Mills called Red Snapper Bank, where they fish for red snappers. About 6 mi. S., #2 red buoy.
Haul #216  Net down at 12:00. Bottom coarse grey sand, shelly, few sponges.
Boat dredge 2  Amprioxus?  (Amprioxus, 1 tiny)
20 fms.
7 mi. S.

Haul #217  Net towed 12:35-12:50 = 25 fms. Great sponge haul, sponges of all kinds. Shrimp and crabs in some, and red ophiurans also.
Boat dredge 25 fms.
8 mi. S.

Haul #218  Out 10 mi. S.W. of buoy, 45 fms. Soft grey, cold ooze, and straight, transparent worm tubes.
Boat dredge 45 fms.

Haul #219  West of 218: Depth 45 fms. sounded at beginning and end.
3 ft. Blake trawl.
45 fms.

Haul #220  Net towed in 30 fms. from 3:45-4:00 p.m. Got back about 6:00, passed buoy (red) about 5:30. Soft grey ooze and some sponges.
3 ft. Blake trawl.
30 fms.

When washed out considerable shell fragments left and some live shells.

June 12, 1925

In lab forenoon writing up these last two days' notes, such as they are, and pickling stuff obtained. Afternoon back on fish stomachs.
June 13, 1925, Saturday

Last evening Miller brought in a Physalia. Kept it into night. Was not phosphorescent when I first looked at it in dark near 9 o'clock, nor when irritated or stirred up. Of course this is but one isolated case, but it was not luminous anywhere or in any sense. The blue at pointed hinder end most intense hyacinth blue, fading out to Antwerp blue anteriorly, same in folds of crest. Edge of crest rose purple, also shorter tentacles below, fading into lilac. Long tentacles dark **auricular** purple, or almost dahlia purple.

Measured fish and opened stomachs and intestines all morning. Looked at balance of June 9 fishes; to date have looked through 264. Knocked off at 3:00 p.m. to write this and some letters.

Dr. Mann's birthday party. Made candles in test tubes. Cook made cake and put flag over door, also special soup, which we ordinarily do not have for supper.

Chester got a conch with a Petrochirus in it and also got two Porcellana sayanas out of it—first I had seen. Larger of two was between **dragon**'s blood and coral red with whitish spots, smaller liver brown with spots more nearly white.

June 14, 1925, Sunday. 6:30 a.m.

Wrote letters last night and a little more this morning to Stummy. After the Dohrn goes will be a day of fish stomachs, all day until bedtime.

June 15, 1925, Monday.

All day on fish stomachs.
June 16, 1925, Tuesday.

All day on fish stomachs; off from 2:00 to 4:00. Dohrn arrived. Read mail. Some of these fellows have all their second class mail sent down. Makes a nice showing and passes time.

Valentine collected erosa on Bird Key reef—Vinaceous—Cinnamon, generally some Vinaceous and Buff Pink, with madder brown (obscured) bars on legs and chelipeds. Thoe prunella and some Mitrhax coryphe taken, too, 1 Microphrys and E. gonagra and two Gonodactylus.
June 17, 1925

Other day about 4:30 or 5:00 put Hippa in aquarium; it burrowed right under. That evening about 9:00 o'clock I went out to look at aquarium. Portunus depressifrons had it half (3/4) eaten, bottom legs all gone and shell empty except at extreme hinder end.

Calappa supports itself on last two pairs of legs while eating, passing food up with 2nd and 3rd pairs chelipeds, merely holding rests on flat edge of propodus to keep from sinking in sand. When walking legs are very tactile in function, feeling and testing out ground ahead as crab moves, twitching and nervous much antennules.

Taylor went dredging 3 miles north of Loggerhead on 10-45 foot depth shoal. Got nice lot of crabs.

Dr. Longley and I used diving board for rocks and turtle grass roots. To get food fishes feed on fairly successful though no large numbers of Petrolisthes.

June 18, 1925

Fish stomachs all day.

June 19, 1925

[See pp. 140 & 141 for color notes on Cycloes bairdii, Calappa, and Synalpheus.]

Taylor dredged down toward old wreck S.W. of Loggerhead in about 20 ft. of water; got 4 Portunids and few hermits. Two smaller ones here described; smallest much like two larger, sand grey, closely mottled.

[See pp. 142, 143, & middle section 144 for color notes on Portunids.]
June 19, 1925 - Continued

Valentine went alcyonarian collecting off first rocks below Lab. dock in about 4-4½ ft. water, just before sun down. Saw the Calappa gallus half concealed in sand. Presumably, like so many crustacea, they are nocturnal and so probably can be more easily found six toward sun down.

June 20, 1925

Fish stomachs. Conger gave me a vial of a townet sample, "Off reef near wreck west of Loggerhead Key, Tortugas, June 20, 1925, 10:00 a.m., bright, windy." Got in with my stomach vials unlabelled.

June 21, 1925

Fish stomachs all day.

June 22, 1925

Fish stomachs all day and evening. Crowded in some caring for specimens early this a.m. right after breakfast. Got up at 4:30, at least was waked up by Dexter and Charley, who took us out to make a few townet hauls. Made one 7 minute tow from S. of old wreck S.W. of Loggerhead Key to old wreck. Then made a dredge haul with new small rock dredge that Mills built on the lines of the Puget Sound one across the shoal off extreme south end of island (Loggerhead). Then steamed up to white shoals buoy and made a townet haul 7 or 10 min. running north of that and dredged back. Then made another dredge haul on eel grass just off north end of Island. Got on large thick cake a urchin; had a little white carapace crab, brown legs on it but Dexter lost it changing buckets.
June 23, 1925

Fish stomachs all day. Opened fish in forenoon. for Taylor in afternoon.

June 24, 1925

Attempted to get up early to dredge and townet, but, through misunderstanding, Charley and Dexter failed to wake me. Changed alcohol of jars and at 8:45 began on fish stomachs again.

June 25, 1925

Fish stomachs.

June 26, 1925

Fish stomachs.

June 27, 1925

Packing. In afternoon at 3:00 tried out dredges and watched from diving hood. Mills dredge worked best 9 ft. water, 8 fms. rope 3/4 inch at slow speed, 2 miles per hr. Big rock pattern dredge with 6 fms. rope, 9 ft. water at half speed, 4 miles per hour worked O.K. Little dredge not so good.

Small rock dredge built by Mills to fit his small was too light to be of much use. Too light and middle cross bars tended to block opening too much. More line and heavier weight might have helped, but fact remains that Mills dredge proved most satisfactory.

[See p. 148 for sketch of big (or larger) rock dredge built by Mills.]
Night of the 27th. Had quite a squall and heavy rain. Heaviest I believe I'd seen or heard in two seasons. Leaks which ordinarily didn't exist in light rains showed up everywhere. Slight one over my left ankle, which a towel over the mosquito net took up, though just off that corner quite a leak poured down on the floor.

But Valentine: it came down so on his bed that he was drenched, had to take off his pajamas and dry off his body. And on his bed were at least two great big puddles that made one laugh to look at them. Miller pointed his flashlight close to them and all three of us had a good laugh when, at about the worst point, Miller said, "It ain't goin' to rain no mo'." Valentine had to wait until the rain was over, then turn his mattress, and put on his bathrobe to sleep. Night was cool enough thereafter for it.
Department of Marine Biology
Established 1904. Name changed to Portugas Laboratory in 1923. Activities terminated in 1939.

Directors: Alfred G. Mayer 1904-1922
William Harding Longley, 1923-1927 (Administrative Officer); 1928-1937 (Executive Officer)
David Hilt Tennent, 1938-1939 (Executive Officer)

Staff Members
Paul S. Chamber, 1924-1929, 1937-1938
Albert Mann, 1919-1933
John W. Mills 1906-1939

Other Scientists and Scholars Associated with the Department

Waldo L. Schmitt, 1924, 1929-1931
Clarence R. Shoemaker 1925