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Daily Log
April 18, 1956
to
May 26, 1956 inc

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April 18, 1956 - MAY 26, 1956

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APPLIED FISHERIES LABORATORY
SEATTLE, WASHINGTON

Locality Seattle - Eniwetok Date 18 April 1956 - 21 April

Personnel Bonham - Palumbo Weather _____

Water conditions _____

Radiation level(s) _____

Operations:

Left Seatac at 8:30 PM, arrived
Portland 9:45 pm Left Portland 10:30 PM
Excess baggage 30 lbs - KB paid \$10.80 total
19 April, 1956

arrived Honolulu at 7:20 am, met by Mr.
Andrade of HCN who took us to Transient
area for briefing. Reported to Liaison
Officer [unclear] force for arrangements to
Eniwetok. Left for 0500 20 April.

20 April 1956

Left Hickam 0500 Crossed international
Date Line: date now 21 April 1956. Arrived
Kwajalein 12:35 pm, visited shell museum next
to the airport. Left Kwaj at 2:10 pm, arrived
Fiji 4 pm. Arrived Elmer 5:30 pm. Checked
in at Security, obtained Temporary Badges,
had supper + taken to quarters + tent in
military area. After dinner visited
"AEC barracks" + met Tom Hardison, Ernie
Wytkoop, Bob Taft, George Barrows, Jim
Jugder, Jack Livingston, Walt Gibbons
(UCRL), Jim Reeves, Ed Butts, Dr Mathews
(Astronomy Engineer, Albuquerque), Col Jattis [unclear]
[unclear]. Not much shop talk -

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SEATTLE, WASHINGTON

Locality Parry Island Date 4-22-56
 Personnel Palumbo & Bonham Weather E-20 in am. 10mph pm est.
 Water conditions _____

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Radiation level(s) _____

Operations: Exchanged temporary badges for permanent at Securi
 Our affiliations as to J.T.F. number are in such question that
 no mess hall seating assignment has been made, and we re-
 main in the military tent area. Ernie, Tom, & Ed will work it out
 when they get time. At EMBL, met Cassidy, instrument man for
 NYOO. Their automatic counting equipment almost fills the dehumid-
 ified rooms, but they will make us some room there. The warehouse
 has been cleared for other uses and our equipment moved to EMBL
 to which a northward extension of about 12 feet has been added for
 storage. This is not yet completed but has to be equipped with
 shelves. It now houses NYOO samples. The main lab is crowded with
 glassware from the warehouse, but the 3 cabinets on the south wall
 are about as we left them in November, 1955. The AFL cabinet
 was likewise undisturbed. Careful search failed to reveal plankton
 collars w/bayonet coupling, net ends, Waring Blendor, counting
 rate meter, typewriter, gunny-sacks of field shoes, rotenone
 distributing sacks, or refrigerator. We uncrated a 215-lb box
 of compound microscope and light. Both freezer boxes, on porch
 and inside are operating, ~~but not~~ ^{and} the walk-in box. A concrete
 pond adjoins the porch, south side, but no water ^{in it} yet. The oots,
 aquaria contain living spider snail, anemones, stone fish. On the
 porch are NYOO equipment and a large wire fish trap, rubber boat
 package, Gilmartin's cans of plants (in good shape), and the 5
 cabinets of museum specimens, 3 of fish, 1 of invertebrates, and
 1 of bottled algae. We walked to and from lab, since transpor-
 tation is about as scarce as housing. Tried to clean up
 some of the mess in the lab.

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Locality Parry Date 4-23-56 Mon.
Personnel Palumbo & Bonham Weather Sunny
Water conditions _____

Radiation level(s) _____

Operations: Planned tentative schedule of pre-collections for the week and interviewed Tom Hardison to arrange transportation. He said we had been wrongly assigned to Headquarters and that for smoothest operation we should be in T.F. 7.1 rather than in his group 7.5. So he sent us to Cdr. A.G. Jackson, T.F. Supply Officer (J-4) who after discussion w/ Admiral Hanlon (sp?) arranged an interview w/ Dr. Ogle, Scientific Advisor to Adm. Hanlon, Dr. Felt, Commander T.G. 7.1, Los Alamos, Major Chiment of Group 2 (Scripps), and Jim Reeves, head man of A.E.C. Ogle asked for clarification of the problem by a statement of our purpose. We mentioned radio-biological monitoring of aquatic organisms, possible crash programs, and the oceanic survey on the destroyer Walton June 10-20 and again in September. This was news to them. They apparently knew nothing of the oceanic survey or of the Walton in the ships' movements, and Ogle expressed the feeling that this may duplicate work planned by Scripps' and other ships in the area, except for work on fish. They put us in 7.1 rather than 7.5 since the latter simply serves 7.1 during the operation. If we were in 7.5 (AEC) requests for services for us would be out of order, while if we were in 7.1 that group would care for our needs as part of their responsibility. Jim Reeves assured us further that this interview was essential that our situation had to be thus clarified. Tom the Armand Kelle will try to locate us in a barracks of 7.1 and will get us a brown (photographer's) badge, as he will do for others of our group who

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Locality

Date

4-23-56, ^{Mon} Cont'd.

Personnel

Weather

Water conditions

Radiation level(s)

Operations:

arrive later.

Arranged an L-20 trip to Janet for tomorrow morning, a trip to Vera for the next day, and if Major Perley can arrange it, trips to Leroy and Henry, and to Belle before the end of April.

Tom Hardison through Col. Kerwin arranged for us to get a vehicle on temporary basis from Major Bowen at the Motor Pool.

Ken Perry of Security got the shotgun out of their safe for us. George Bernier says we can get some film from them, in all probability, if ours does not arrive in time.

Background on counter is 19.2 @ 1400 V. Plateau run. Proximity of multi-curie sources is impeding low-level counting by NYOD.

Prepared for tomorrow's trip to Janet.

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Locality Elmer - Janet Date 4-24-56
Personnel Bonham - Palumbo Weather Rain showers
Water conditions _____

Radiation level(s) at Janet in rat colony 1" - 3ft r. was 4mr/hr } "Cute
range 0 - 8mr/hr } "Pie"

Operations:

Obtained shoes and coveralls from Rad Safe,
take off at Elmer at 0805 by L-20, land at Janet
at 0825. Looked for rats in usual area without
success. Looked for cucumbers east of lagoon
without success. found 3 west of pier 200 yds
long 6' pipe. Collected plant specimens and
surface soil in rat colony, also water in lagoon.
Continued looking for rats and finally RP saw
three in bunker area west of block house.

Kelly saw one other. Caught ^{Fork Copepod} ~~one~~ _{major work}

Returned to airstrip. take off 11:35 arrive

Elmer 12:05. Put specimens in freezer etc.

*
Paul { Called Frimitok PXre Beane Pats. They do not have
any at all! Poor sellers.

Made arrangements with Linda Perley for boat and
air service to Vira for 4-25-56 and to Belle for 4-26-56.
Contacted Burgess, Hanson et al for Intracord & beating
Caps etc. Kelly picked up, we packaged enough for
Vira collection and Belle collection and arranged for letter
to be boat freighted to Gene for pickup there with
No explosives allowed on aircraft since one accident had
already occurred or near aircraft.

4 pks Kodachrome and 1-95ft roll of Tri-X film arrived
today from Seattle

Picked up Jeep in exchange for 3/4 hrs we had been

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Locality

Date

4.24.56 Tu. Cont'd.

Personnel

Weather

Water conditions

Radiation level(s)

Operations:

using.

Dried samples of island soil and bottom soil plant specimens and algae (*Spirangium* very abundant) from Janet. filtered water sample w/o section thru MF. will add solid $(Na)_2CO_3$ to 10 ml sample. And see if get any count. don't expect to, but want to try out the procedure.

Am checking the counts for background and standard counts.

Prepared algae plate for counting here and for assays here. Major first sheet collections of all organisms will be made at Vera and on Bethel Janet (rats, ~~sp~~ tape tried again. If time permits) and plankton-pelagic fish if time and support permit.

We may get helicopter service early next week to Troy - Henry. these items are at premium and we may have to resort to boat in which case will plankton fish also.

Hank Burgess helped us round up primacord, caps, generator, tape, and grease; stored in EMBL over night.

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Locality Ursula, Vera, & Elmer Date 4-25-56 Wed.
Personnel Palumbo & Bonham Weather Cloudy a.m., clear p.m.
Water conditions _____

Radiation level(s) _____

Operations: 0800 water taxi to Ursula; collected 3 H. atra & 1 stichopus. By DUKW to Vera, ~~at~~ southern end, lagoon side. Spread 1 jugalug of rotenone (in sack); while it worked, collected mantle of 3 Tridacna crocea, 10 Acropora, 3 encrusting sponges, 3 H. atra, a fan, and a black warty cucumber; collected the fish kill - fair. Shot 30' Primacord in 6' of water ^{mid-island, lagoon side,} but got no fish; any present were obscured by turbidity or hidden in coral crevices. Lack of time prevented another attempt, but rotenone sample will do. Dug out 1 Ocypode; found no Coenobita. Survey meter readings beside road, south end, using "Cutie Pie" U.S. NRDL-NN-0321, El-tronics Model CP-3DM, gave 1-2 mrep/hr either 1" or 3" from ground. 1330 hrs DUKW pick-up to Ursula & Tilda air strip and L-20 @ 1415 to Elmer. Put specimens in freezer. Visited by Burch, 7.1 Safety advisor re. storage of primacord & caps: Said ²⁸ caps in locked safe, ok. Should remove primacord to explosives shed - will do tomorrow.

Two 4' rolls of 2" hose or tubing in burlap arrived % Tom Hardison for Donaldson; stored on porch; also 2 crates.

Collected algae and land plants as per proposed schedule for monitoring; at south end of Island near K beacon - Lynghya, Hali meda and Caulerpa; Messerschmidia, Scaevola and Triumfetta. Collected 500 ml sample lagoon water and bottom sand below low tide, also island soil top inch south end island in several spots.

Other lab occupants busy in lab and we had to work around them some. Saw up and

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Locality

Date

4-25-56

Personnel

Weather

Water conditions

Radiation level(s)

Operations:

Chased around for discussion w/ Armand Kelly. Our position not clear yet. We may end up in Headquarters. Put in for missing typewriter. No work shoes available from supply - my 10B. Bad safe boots are almost wide enough for me. I have been wearing LRD's old sneakers - priced sneakers in P.X. \$2.30, but supply limited to size 12! Others at \$3.05 available in all sizes, but are low. Suggest you bring own shoes if you need cord widths. There are no old shoes kicking around.

Water samples filtered, plants & soils drying ^{into} oven, and prep for tomorrow's Belle trip.

Looks like Belle and Vera will represent our pre sample. May have trouble getting in heavy stuff for Ed since plans are being hurried and things are getting tight. But will do our best, Ed. We plan a jellyfish trip maybe for Sat if possible with fella's fishing. Another last trip looks out of the question.

Both KB and RP red from 54m, even our bald spots.

Counting background runs from 15.3 to 19.2 when sources not exposed.

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Locality Elmer, Belle Date 4-26-56 Th.
Personnel Palumbo & Bonham Weather 20-25 estim mph.
Water conditions _____

Radiation level(s) Belle F (Cutie Pie) 2-4 mr/hr.

Operations: Left Elmer by L-20 0830. Left Gene ~ 0915 by DUKW w/ Don Jones # (LASL). Arrived Belle F ~ 0945, to learn that thru a misunderstanding Jones did not have our primacora as we thought. DUKW took him over to Alice where he very kindly collected 3 Holothuria atra, ^{ocean side} We fished in shallow water of F area (in a frigid shower) with rotenone, getting on a few small fish. Collected the scheduled plants, algae (3), sponges, corals, and Coenobita ^{legs} but could find no Decapoda or Ocypode; saw Ocypode holes. Took meter readings (above), soil and water samples. Departed Belle F ~ 1000; DUKW went toward Clara > half way ~~foot~~ then lagoon-w. but got stuck ~ 20 min. at reef edge. Finally worked loose on the rising tide. Left Gene in L-20 @ 1400. At Elmer froze samples. Lt. Beiler notified us of our assignment to JFF 7.1; we shall occupy a 6-man room next to his in a 70-man barracks; gave him ^{on request} names and dates of arrival (approx) of others EH, RO, June 3; LD, J.D., AS, A.W., FGL, & NOH, & Tom Hardison mentioned receiving notification of shipment of water, Waring blender, etc. Cmdr. Perley arranged for pickup of KB on M-boat w/ DUKW w/ party to Leroy tomorrow 0800-2000 with 30-60 minutes ashore; will try to get algae & Decapoda on the high tide, and terrestrial Crab samples if Ed wants. On 4-24-56, Chambers (w/ Burgess in Safety) to groupers: 337-lb sent to Wn. D.C., 364-poultid caught at 371-lb off Elmer; and 471-lb on Elmer, in our way home - it looks unbelievable! All caught within a year.

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Locality

Date

4-26-56 Th. Contd.

Personnel

Weather

Water conditions

Radiation level(s)

Operations: The 364-pounder which Chambers once had on and lost was finally caught w/ $9/16$ " thick barbless hook baited w/ 5-lb half of a fish, and $1/4$ " nylon line. Most of these fish were beached for landing.

Talked w/ Col Schmitt of DMA about our program. He said if he wanted William here on June 10, it will be outfitted w/ washdown gear and some gear for plankton etc. and it is expected that the ship will be here 3-5 days for these details, then it will go out until June 20th at which time all our gear will be offloaded. Since there is no guarantee that this same ship will be available for the Sept. Cruise. The 3-5 days spent outfitting the ship will give Alt Frank a few days more to work with. The program of the AFL is now "in the show" and all the top dogs here are aware of its scope and importance.

Evans spent on lab work, counting etc.

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Locality Elmer, Leroy, See below Date 4-27-56 Fri
Personnel Palumbo & Bonham Weather Rain showers + Sun
Water conditions Lagoon rough

Radiation level(s)

Operations: Opened some Hiatt cases at lab. and removed to porch. Plankton traps by R.F.P. 0915 AM in Cable
boats. Fished when possible, no luck at all.

0930 Deep passage tow 1/2 hr. 2-12" nets Temp of
water 23.1 C. Wind 15 knots. Weather 50% as fog. Plankton

traps were empty. No luck at all. Will make a haul on

0945 10' surface of water. 1/2 hr. 2-12" nets

collected 10' surface water. 1/2 hr. 2-12" nets

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Locality Elmer & Henry Date 4-28-56 Sat.
 Personnel Palumbo & Bonham Weather Good
 Water conditions _____

Radiation level(s) At Henry under Pandanus tree at east end, ^{using Cutie pie} 2-4 mr/hr. ^{of road}

Operations: Left Elmer 1100 by H-19 (lucky us!) for Henry with Preston of UCRL, ^{the} pilot, and the pilot's assistant who helped hunt for coconut crabs. Spread bread along road near burrows, but had to return too soon for it to lure the crabs. The pilot located 3 Birgus about $\frac{1}{4}$ way from E end of road, which we jug-a-lugged. 5 Coenobita with shells were taken under the Pandanus tree at E end of road; soil & plants also taken here. No Ocyropsis were found, but an Eriphia was taken near the sea cucumber ^(S. H. alca, L. stichopus) collecting site, seaward from the Pandanus tree. No coral or sponges seen and time was too short for going farther. Copter arrived Elmer 1215. Ed's Birge Coenobita, plants (Pandanus fruit, Morinda fruit, etc. as requested by Ed) packaged in a box labeled "Henry 4-28-56," in freezer on porch.

At Security, got our 7.1 brown identification badges. First mail from home arrived today. ^{wet} Chaetodon muscle from Vera counted 20/min (1.72 grams) ~~wt~~ gross, minus 16 bg. = 4/min.

Plate numbers assigned to the various groups for this operation: Fish 1-1000, Invertebrates 1001-3000, plants 3001-5000, water 5001-5500, Soil-sand 5501-6000, Plankton 6001-7000, Birds 7001-7500, Rats 7501-8000.

Algae washed up on beach - also collected.

Soils-sand packaged bulk for radioassay & Chem if needed.

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Locality Elmer Parry & Janet Date 4-29-56 Sun.
Personnel Palumbo & Bonham Weather Good
Water conditions _____

Radiation level(s) _____

Operations: Left Elmer 0805 by L-20 for Janet. Collected 3 rats by bunkers using shovel and swatters. Dug ~~one~~ two out of burrow in pile of dirt; got one of these; other escaped. Uncovered one by moving dead tree; got it. Got third running in open. Workmen reported seeing rats other places near bunkers. Rat traps are still in bunker, 6-10 in number. Dug one burrow which proved to be of an ogee, collected, not a rat, surprising for so far from water. Left airstrip 10:30 for Elmer.

Examined plankton taken 27th. Deep Entrance differs from Bruce chiefly in presence of many copepods at D.E. and their virtual absence at Bruce, but the presence of much debris at Bruce.

Yesterday Ralph initiated a guest log with Tom Hard, with the first signer. Today's included Germschauser of Edgerton (sp), Greer, & Germschauser, and 6 others. Fed the fish including 2 stonefish, anemones, and crabs.

Sampled fish at pier: papia, 2 Lethrinus, Remora, Chorinemus, rainbow runner, and a "minnow".

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Locality Elmer Date 4-30-56 Mon.
Personnel Palumbo & Bonham Weather Good
Water conditions _____

Radiation level(s) _____

Operations: Got supplies: chlorox, sponges, mouse traps, and carborundum hone; work order at J-6 for muffle furnace racks. Ralph & I moved to Barracks 108 Room 4. Collected sea cucumbers 2 Holothuria atra & 1 Actinopyga mauritiana to seaward of barracks area, and algae near lab. ~~5~~ H. atra & A. maur. seen near lab but not collected. Got film: w/ Geo. Bernier, rolled off 4 rolls of Tri X 35-mm. 5½ feet each, from 95-ft roll of designation 1-TX-402-35 (George's number). Got 40 shot-gun shells from Ken Perry, left in his custody by Frank. Stamped cards and dissected Vera cucumbers.

Experimented with mortar and pestle - algae Asparagopsis and Caulerpa homogenized well enough, but Scenedesmus leaves were too slippery and took much to long. Plated out samples & they looked good.

Soils and plankton samples are being treated exactly like they were for castle series. Enough soil is being sent for chem analysis^{etc} if needed. Etc includes self absorption studies and for other labs.

This lab is looking more like a biology lab & less like an instrument lab. It's still a struggle to get thru the air conditioned rooms and porch but were making headway -

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Locality Elmer Date May 1, 1956
Personnel Bonham - Polunbo Weather same - changing
Water conditions _____

Radiation level(s) _____

Operations:

Secured all possibilities for blender and
luck until I contacted Jack Livingston. There is
a large box for us w/ 6 Waring Blenders & it's to
be delivered today. Arrived PM. Rate meter
and all accessories - it had been at Cad Safe -
no addressee on packing slips except Elmer -
also arrived - 1 rem fig. and 1 box unopened.
From NYO for L.R. Donaldson. 2 large 7 ft tanks,
2 water pumps & large probes boxed up.
Waring Blender dug up in box from UofHawaii.
then looking for Nitric Acid. Several boxes marked
and others unmarked have been left unopened.
Will find out what's in them gradually - Packing Slips
removed before arrival at lab.

An Air Force Nuclear studies unit headed by
Majr Peterson visited lab. Are interested in helping
us collect and process etc when I have load stacks down.

Homogenized Verc #25.56 plant samples. Further
it takes 1 part H₂O. 1 part plant or 2 pts water - 1 pt plant
to do a good job. How to do some juggling to get
correct wet weight, but is fine if proportions are
kept standard. Punch cards, weight column will appear
same, but final side will give calculations made.
Stems and hard parts can be chopped up better
in large glass top; metal top not good enough.

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(2)

Locality _____ Date May 1, 1956

Personnel _____ Weather _____

_____ Water conditions _____

Radiation level(s) _____

Operations:

after homogenization, two plates are made, weighed, dried w/ infra radiator, and sealed in small bags - makes a neat package. Seattle lake well ash, etc. Took one afternoon and part of evening to work up 12 specimens - 24 plates.

Continued dissecting cucumbers; made 24 plates; fitted on lead window tube.

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SEATTLE, WASHINGTON

Locality Elmer Date 5-2-56 Wed
Personnel Palumbo & Bonham Weather _____
Water conditions _____

Radiation level(s) _____

Operations: Continued cucumber processing. Collected Elmer pre-shot beach sand and island soil at Lab.

Processed Belle plant samples

KB collected soils on Parry -

2 more Blenders found -

2 boxes, need NYOO for LRO

Found that small glass type

on blenders work without lots of use - This not good since samples for Sonpy + plates have to handle. Halmak and also in general work nicely - Stems and fruits are tough - may consider changing my choice of land plant tissues to facilitate this job -

Plate dried under infrared also package nicely.
* We need more 1 1/2 inch plates. We are now using weighed but unnumbered plates - write the number in pencil, hope you can read it.
Paul + Ed should definitely carry plates with them

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SEATTLE, WASHINGTON

Locality Elmer Date 5-3-56
Personnel Palumbo & Bonham Weather _____
Water conditions _____

Radiation level(s) _____

Operations: Continued cucumber processing. Ralph located, and started using, for sea water sample filtering, the suction pump in the varnished box, that was at the lab previously. Received the second envelope of containers, this was 5" tubing, pleo filters, the first was peanut bags, cellophane.

The centrifuge pump button broken. My 500 cc. does not function properly. Aspirators are almost as good. Will try to remedy this situation tomorrow. Spent all afternoon and part of evening filtering (2) 100 ml samples from Daniel Bell, via and did not finish 2 pleo filter samples. My fastidies were out in first filtration.

APR 1956
APR 1956

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SEATTLE, WASHINGTON

Locality Elmer Date 5-4-56 Fri.
Personnel Palumbo & Bonham Weather _____
Water conditions _____

Radiation level(s) _____

Operations: Refrigerator (Gibson 8 ft³, new) delivered to Lab. Continued trying to set up rate meter. Got it working ok. Appears to be suitable for hot, but not for pre-shot, samples. Assembled new tube, cable on shield and attached to second counter. No response; spurious counts when timer goes on & off.

Removed Hyvac pump from case & KB disassembled watch. Looks like there was a leak in the system somewhere because it precluded the pump. Worked well enough, finished doing all work. Samples to date. Asked file papers by going into them and sealed plates in small bags. Even w/ lots of foam on the col. flops around so from now on will they in small bags each and send and you can track the plates in Seattle. Will send cards & log with samples.

Rate meter continues to work ok, but samples (change feeder) has its faults. Microswitch to turn off records & stop plate does not work, or at least we haven't connected it up right yet -

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SEATTLE, WASHINGTON

Locality Elmer Date 5-5-56 Sat.
Personnel Palumbo & Bonham Weather Good
Water conditions Mild

Radiation level(s) 21 c/m.

Operations: Everybody up early. Sealed ashed cucumber plates 1001 thru 1044 for shipment. Each plate is sealed in pliofilm and inserted in its carrying card; these cards with their plates in place are stacked touch each other so that mutual pressure helps keep the ash from shifting. There will be some shifting of ash, but it is hoped that the ash will not shift around the edge of the plate and get underneath the plate. If ash does not get under the plate, the removal of the pliofilm could best be done by burning, perhaps. These plates have been counted at EMBL but should be counted in the Nucleometer for final Post Necta data. Other samples will be dried but not ashed at EMBL, as stipulated in our planned program of monitoring.

The rate meter continues to work well, and is admirable for continuous background recording where large (>1.5-fold) fluctuations are expected. At the slowest speed the 103-foot tape runs $\frac{3}{4}$ " per hour and lasts 2 months; at fastest speed, 6" per minute = 2 1/2 days total life. Slowest speed is suitable for background tape or ^{record} chart came with the machine and it would be desirable to have extras on hand. Suggest ordering 12 Record Charts No. 4309-X @ \$1.50 each. Enterline-Angus Co., Inc., P.O. Box 596, Indianapolis, Indiana. Prices in lots: 24-47 @ \$1.40, 48-95 @ \$1.30.

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SEATTLE, WASHINGTON

Locality Elmer, Vera, Zona, Bruce Date 5-6-56 Sun.
 Personnel Palumbo, Bonham. Weather Good
 Water conditions smooth

Radiation level(s) Vera 200-300 mr/hr @ 1110-1125 hrs. Other localities < 2

Operations: With Lewis Blake, Wm. Springs, and Pohlman left Elmer @ 0900 on M-boat 212 w/ Operator Gledhill & deck hand. Took plankton tow in Deep Entrance 0910-0935 w/ #12 (101) net 12" in diameter; the #6 net (100) ripped off the canvas and was lost; 2nd plankton tow at 1130-1200 w/ same net $\frac{1}{2}$ mi. off Vera toward Wilm; 3rd tow 1255-1325 1 mile off Alvin toward Bruce. From 2 to 4 fishing lines operated most of the running time using feather jigs and red squids but no tuna caught. 8 fish were caught near shore: 3 jacks, 2 by Blake @ 900 $\frac{1}{2}$ mile off Elmer, and 1128 at Vera, and 1 by Pohlman 1500 at Bruce; Blake also caught a 7-inch brown grouper and 2-line mackerel at Bruce ~ 1500 hrs. At Vera Cutie Pie readings were 300 mr/hr. In 10 min ashore 1110-1120, KB. collected 3 cucum. *H. atra* at So. end where collected previously and RFP got algae, coral, sponges, and sand (plants also), from the cable area when mid-island where the M-boat landed. At Zona, landed 2 mr/hr; saw many sooty terns, an egg in a nest, a fledgling perched and no signs of heat damage, tho no coconut palms present. Collected cuc. *Actinopyga* on outer reef, sponges, corals, algae on inner reef.

At Bruce, north end, 1500 hrs, 0 mr/hr. Got 3 *H. atra* from tidal pool at NE edge of island; corals & algae from NW edge at boat landing.

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Locality _____

Date 5-16-56 Sun. Cont'd

Personnel _____

Weather _____

Water conditions _____

Radiation level(s) _____

Operations:

Springs & Blake got young coconut sprouts for planting at Elmer. Coconut palm fronds were noticed by the deckhand ^{and the rest of us} to be singed on the north side which is surprising in view of the distance from the north end of Yvonne and the lack of evidence at Zona. Tatom brought in Moorish idol and Fungia collected afternoon from the south reef of Elmer.

Counted Vera ~~sand~~ ^{soil} samples: Vera ~~sand~~ or soil collected 100' ^{inshore} from boat landing at cable area where Schmidia leaves were taken. Two plates were made by loading the 1 1/2" plate with sand and then pouring oil but 5 mg of fine dust. Vera soil plate #2 73 mg of coarser sand dipped from the top of Yvonne. When first counted at 2000 hrs. #1 was 43,000 c/m and #2 ~ 10,000 c/m.

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Locality Elmer Date 5-7-56 Mon
Personnel Palumbo & Bonham Weather Good
Water conditions _____

Radiation level(s) Bg. 27 c/m on EMBL #68 (Up to today has been 15-22)
Operations: Vera island soil¹ decayed from 43,000 last night to 35,000 at 0800. Rate meter faulty; will not count this plate.

Ralph collected on Elmer reef behind lab at 0800: 3 dead mullet, 4" long, 2 young sea cucumbers 1/2" long and algae

LeVine, chief of instruments div. of NYCO arrived and reorganized, dehumidified, ^{their equipment in the} rooms to give us ^{all} more room: moved centrifuge, and small safe, Toledo balance into main lab. They now occupy the front dehumid. room except for furnace oven; under oven is their air compressor; in the rear dehumid. room they have space made by removal of centrifuge & safe; temp. in 1st room 90°F in 2nd 84°F. ^{between 2 rooms} temporary removal of panel over door, to cool Room 1. The lab is now pretty full with NYCO & AFL. Hope no other investigator plans to occupy this lab before NYCO leaves in or before Sept. 1.

1.4 warehouse called that they had stuff in storage belonging to us. We found all the missing items that had been in the warehouse behind the Res. Engineer's office: plankton nets, shoes, rubber boats, etc.

Here is plankton gear: 3, 4-inch bayonet-fasten collars for adapting "cod-end" bags to nets, plus 1 collar in working order, 9 new and 3 good used (attach collars) cod-end bags; 1, 2-inch diam. limnological

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Locality Elmer Date 5-7-56 M. Contd
Personnel _____ Weather _____
Water conditions _____

plankton bucket; $\frac{1}{2}$ -meter plankton nets for $3\frac{1}{2}$ -
diameter buckets = 2, new, unused, of 74
and 80 meshes per inch. 2 almost new, mark
Nylon #1 & #2, October 1955, complete with hoops,
bridles, and bucket collars; 4, $3\frac{1}{2}$ " stainless buckets
with screens for above nets; 3 extra $3\frac{1}{2}$ -inch adapting
rings to attach buckets to nets; 4 thimbles, 3 rings (2
snaps, 200' unused No 9 ($\approx 5/16$ ") sash cord, 200'
good $3/8$ " sash cord, scraps of plankton netting,
and 1 rusty $\frac{1}{2}$ -m. iron hoop, and 2 ^{extra} new $\frac{1}{2}$ -meter stain-
less steel hoops.

Packaged samples and cards for mailing tomorrow

plankton 6001-4

water 5001-12

soil 5501-12

plants & algae 3001-44

invertebrates 1001-50 (see attached note among cards)

No fish; yet to be finished.

Spent afternoon organizing and stowing equipment; quite a
job since we now have no warehouse space. Have started
stacking empty crates on windward side of lab.

Tomorrow will affix fittings on two probalanks so
we can keep them filled w/water to prevent deterioration
of rubber linings etc.

P.S. We're at Eniwetok - APO 435 - remember!
No news excepting Jones' note. Thanks, gel. We've
been gone since April 18th, are you trying to
freeze us out?

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Locality Elmer Date 5-8-56 Wed Tues
Personnel Bonham-Palumbo Weather Good
Water conditions Moderate (from book mentioned below)

Radiation level(s) By. 21-28 on 3 counters.

Operations:

Continued processing various plant, animal, soil and water samples. Algae from Elmer show increase in activity. Water algae and soil very hot - samples being sent for chemistry and for decays. Decays being run here. Aspara gopsis project moving very slowly but RCB cucumber program in full swing. Haha! Rate meter barrier operation; increased voltage to 1320 and get best results, at 1250V got no correlation between different scales. Emise counter set up NO. 2 (no pig + RCL tube) now operating - a gain made possible by regulating the voltage, now counting at 1250. Who needs "electronix"??

Schlegel of studying fallout left 2 copies of "Digest of Oceanographic Data for the Marshall Island Area", by A. R. Gordon, Jr., U.S.N. Hydrogr. Office, March 1956, 37 pp, a good popular summary of waves, swells, currents, temps, salinity, depth density, geology, and sketchy biology. Mailed samples & cards listed yesterday. Sent TWX @ 0912 to dl regarding plankton gear.

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Locality Elmer Date 5-9-56 Wed.
Personnel Palumbo & Bonham Weather Good
Water conditions Moderate

Radiation level(s) 21-28 on 3 counters

Operations: Collected on reef: south of Elmer got some algae some pale green w/orange markings olive anails, and near the old wrecked T-boat got 3 female (2 mature) sea cucumbers *H. atra* with counts from 4 to 80 per gram uncorrected.

Counters working well.

Received welcomed letter from Lauren and others.

BP answered same about 10 minutes after receipt.

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Locality Elmer Date 5-10-56 Th.Personnel Palumbo & Bonham Weather GoodWater conditions ModerateNo rain today; very little yesterdayRadiation level(s) 21-28 c/m

Operations: Collected on ^{reef} south of Elmer about 1/3 way to Fred; Grantia-like, red-encrusted brown, and black coral, sponges, 13" octopus, and Lyngbya. H. atra got bigger with distance from Fred Elmer; saw some 16 inches long, bigger than actinopyga and almost as thick as firmness, brought back 2 big ones and 5 smaller; plants. In on reef back of lab; spicules of the big ones proved to be H. atra. Made plates of sponges (plate counts 24 to 30 mm) and octopus (2/m), but not cucumbers.

Visited Elmer fishing pier, ^{fish} samples of 4-29-56

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Locality Elmer Date 5-11-56 Fri.
Personnel Palumbo & Bonham Weather Good
Water conditions Moderate

Radiation level(s) 21-27

Operations: Processed Elmer fish of 5-687-56. Walked reef to island half way to Fred: slate pencil sea urchins common; Halothuria atra & Actinopyga common all the way; large H. atra measure 19" x 2 1/2"

Arranged Helicopter trip to Leroy & Henry for 0930 tomorrow, including KB, RFP, and Ira Whitney and F.R. (Ted) French of NYOO.

Water samples and plankton samples collected on Vera 5-6-56 trip processing completed.
Vera land plankton completed.

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Locality Elmer, Henry, Leroy Date 5-12-56
 Personnel Palumbo & Bonham Weather Good
 Water conditions Moderate

Radiation level(s) 21-27 c/m by ^{0.1} Elmer.

Operations: Left Elmer 0915 by helicopter with E. R. French, Ira Whitney; at Henry collected land plants, algae, soil, water lagoon, thalassia. See Elmer lists, coral, sponge, and small cucumbers.

Water readings w/ cutie pie ionization chamber 2 m/hr.

Left Henry arrived Leroy 1040 and collected similar samples as at Henry plus coconuts and 1 large 13" clam Hippopus sp. by Whitney. Arrived Elmer 1145. Monitor found coral to be rather warm. 10 m/hr.

Hippopus kidney counted 200 cpm wet and entire contents of clam minus the shell were dissected in 10% and saved for chemistry. Samples of various species collected were prepared. Land plants were cold, algae & thalassia were hot and remainder saved.

AEC office received wire from Hayfodge, Dr. Adm. Pompe that natives had become ill from eating barracuda flesh; also inquired if ichthyologists would be interested. After long deliberation AEC personnel said they would be if immediate short flight could be arranged. Mr. Butts, AEC made the arrangements for 1 day trip for Sunday 5-13-56.

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Locality Elmer & Ponape Date 5-13-56 SUN.
Personnel Palumbo and Bonham Weather Good Moderate winds Fair
Water conditions Moderate

Radiation level(s) 21-28 c/m.

Operations: With Ira Whitney, left Elmer in Jeep by M-boa 0700. Left Fred by Grumman Albatross 0830; arrive Ponape 1050. Met by H. M. Hedges and arrived in town 1140. At his house visited with Mrs. H., Mr. H. Anthon and conferred on barracuda poisoning. The two other passengers on the plane, John Clark, Deputy Manager of NYOD, and Bryn Lien. Schwichtenberg, or M.D. likewise conferred. The group reconvened at the swimming pool to include the resident physician Dr. A. H. Martin, the native surgeon Dr. Sero, E. Wroniec, Extension Agriculturist, and R. Weirick General Supply Assistant. Dr. Sero told of his own experience from eating these barracuda that had been caught ^{at night} just off the reef two weeks ago. He ate quite a bit, about a pound, and within 8 hours began to experience numbness in his legs; it spread upward and was accompanied by diarrhea, muscular weakness, and partial loss of equilibrium. Even now he still feels some of the effect. There were also cramping and abdominal pains ^{for a week} but no fever. Many of these symptoms were solicited by inquiry (Schwichtenberg and others). Since eating the fish, Dr. Sero had been told by a fisherman that the way to identify these specimens was by a slight greenish cast to the bones when the fish is cut into. It

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Locality

Date

5-13-56 Sun. Contd.

Personnel

Weather

Water conditions

was not clear whether this green appeared on the ribs in the body cavity or within the incised tone. Last year about this time 4 people in Mokil village (pop. 400) were similarly poisoned. Two of the fish from this year's catch were sent to Col. Pusa in Fred, Eniwetok, by Mr. Hedges. Specimens obtained for radio-assay were: muscle of 6 *Sphyræna japonica* (bonnetheads), muscle of 1 and tail muscle of 2 yellowfin tuna, no abdomen and side muscle of 1 marlin, 1 crab, large, from mangrove forest, 1 crab, small, from door of Hedges' house by young (10-12 year old woman), 1 large & 1 small African snail *Littorina fulica* from vegetation in village, and 2 air cucumbers, *H. atra* from airplane ramp. All these samples counted dry on rate meter (at time of writing, a day or 2 later) were at background.

Plane left Ponape 1630, arrived Fred 2000.

Personnel boat got us to Elmer 2230.

Algae and coral collected at plane ramp. Visited Agric. Expt. station and spent some time with Mr. Iwagie, agronomist. Also took photos of some falcons, people and general views.

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Locality Elmer Date 5-14-56 Mon.
Personnel Palumbo & Bonham Weather cloudy
Water conditions moderate

Radiation level(s) Bq's 20-28

Operations: 0800 by duty boat to Fred; brought back jeep
0830 boat trip. TU & photographed speared
fish that had been speared and put into
the aquarium yesterday, but died overnight; also
photographed large crab from mangrove swamp
at Ponape (Photo F 849) Fish = F 84-6, 11, & 12.
Processed fish samples.

Processed many other samples of water,
sediment and plants

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Locality Elmer Date 5-15-56 Tues.
Personnel Palumbo & Bonham Weather cloudy
Water conditions moderate

Radiation level(s) Bj's 20-27

Operations: Processed invertebrate samples; developed
rolls of 35 mm Tri X of specimens and of
the Ponape trip of 5-13-56.

Spent most of day running decays and
drying samples. Very sand and algal decays
are similar with a slope of a bout -1.2;
a slight curve for the sand.
Very bottom sand a bout 6x fatter
than 1st sand. Algae also hot, but
plants not at all.

Made first absorption column with
silica powder. Poor water soluble stuff through,
giving little absorption and a slight rise in
ground from solution to eluate, 2 cm (ml) etc.
The activity is low in *Aspergillus* and *Penicillium* trying
out techniques in case. Found an nice sample
to play with.

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Locality Elmer Date 5-16-56 Wed.
Personnel Palumbo & Bonham Weather Partly cloudy
Water conditions moderate

Radiation level(s) Bg's 20-24

Operations: Replaced specimens in faunal display case
to post office, disrupted by vehicle jacking the
top, cleaned squared glasses on porch, mailed
logs thru 5-13-56 and a "Welcome to Ponape"
brochure. Completed cards for fish and inverte-
brates to date.

Continued Asparagopsis study with powdered
samples from the Rarotonga year at this stage.
Wanted to set the jacket for rats, but
it would have waited a while - other islands
are getting warmer.

Checked on counting equipment for boat
trip. No news yet. AEC will try to get
something on it. Want we suggest you check
from your end. No Antix tubes in sight yet.
The two counters and shields requested.

N Yeo may have partially assembled the
big tanks for the prober. Will test soon. Will
help us fall aboard ship.

IRA Whitney left today. He was an excellent
labmate and cooperated in all ways. Sorry
to see him go.

Have signed out slide rules from J4, RFP's name
Can't someone bring one out?
Ponape algae and coral - background -
and sponge

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Locality Elmer Date 5-17-56 Th
Personnel Palumbo & Bonham Weather Cloudy, rain
Water conditions moderate

Radiation level(s) Counters 21-32

Operations: Counting & weighing. Rate meter requires constant attention to same extent as ordinary counters when latter are used on continuous basis. When sample is inserted into R.M., the range must be selected from among the available by watching the needle for a short time. For the reasons plates of unknown range must frequently be loaded into the continuous-reading strips and counted without attention, since a percentage of counts will be required with standard as variable as ours. The R.M. is useful for continuous record of background (on the recorder) samples when changes of rate during the counting are of interest.

Pompha algae, Herby Coconut samples

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Locality Elmer Date 5-18-56 Fri.
Personnel Palumbo & Bonham Weather Rain! Steady. Might as well be Seattle
Water conditions Moderate

Radiation level(s) 23-35 c/m Ag. on counters

Operations: Counting and packaging samples.

There is a lot of algae, but no extractions
yet. The algae is apparently
little. The algae on the
parrot fish is not worth more to be done.
It is a good idea to get and Hazelwood of US Navy
underwater observation group who are doing
a lot of work on sedimentation in the lagoon,
and who have made
arrangements to go with them
to observe their methods and to collect
some of our own. They
work in shallow water, usually about
10-15 feet and operate daily.
No need for well analysis: [E. French]

200ml sample
add ~ 50ml 10% Na₂O₂, let stand
20 minutes, filter - count paper
Rain water: as above but add ~ 50mg Ca⁺⁺ carrier
200ml sample; (Ca⁺⁺ as CaCl₂ or CaCO₃ OK)

~~There is a lot of algae, but no extractions
yet. The algae is apparently
little. The algae on the
parrot fish is not worth more to be done.
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underwater observation group who are doing
a lot of work on sedimentation in the lagoon,
and who have made
arrangements to go with them
to observe their methods and to collect
some of our own. They
work in shallow water, usually about
10-15 feet and operate daily.
No need for well analysis: [E. French]~~

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Locality _____

Date

5-18-56 (cont'd)

Personnel _____

Weather _____

Water conditions _____

Radiation level(s) _____

Operations:

A new method recently developed at ≈ 400
1 litre sample; add 20mg Fe^{++} of NH_4OH ,
and filter thru glass; count fibre
on filter. Co. and P_2 from the filter
are made into Fe filtrate.

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Locality Elmer & Janet Date 5-19-56 Sat.Personnel Palumbo & Bonham Weather Rain, cloudy.Water conditions moderateRadiation level(s) Bg's. 19-28Operations: Prepared and mailed the following samples
Seattle and cards to Seattle:1-33 inclusive except #30 lost (duplicate anyway)
1051-1123 " " 1064-5, 1116, 1118-9, 1120-1 (for decay)Station 6005-7 " "5013-5024 " "5512-15 " "5045-5100 " "UNIVERSITY ARCHIVES
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Schmitt and Thompson brought to the lab Liason
 Capt. Coleman who helped arrange for the vessel
 for the ocean survey. He emphasized the need for a tracer
 on the undelivered equipment shipped mid-April from Seattle.
 He sent TWX asking Lauren to start tracing from that
 end and to TWX us the designations of the shipment
 so that we might be able to locate it more quickly
 when it arrives and possibly anticipate its arrival,
 or even trace it from this end. A shipment is
 expected early in June, but if it is not in that
 shipment, air transportation would be required
 to get it here before June 10. Capt. Coleman
 said wash-down equipment is installed on the
 vessel already and it was his recollection that the
 vessel was to be ready to sail, rather than ready to
 have the equipment installed, on June 10.

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Date 5-19-56 Sat., Cont'd.
Weather cloudy, rainy
Water conditions:

Radiation level(s)

Operations:

Left Elmer 1605 by H-19 (L-20's not landing on Janet); arr Janet 1625. Collected 2 adult and 2 juvenile rats at bunker area; Genchrus echinatus, Fimbrystilis ^{Cymba} and Sida fallax. Went to lagoon beach 1730 where MX-5 gave 8 mr/hr. Collected 1 Stichopus, 2 Holothuria atra, 2 sponges (top, under rock), and 3 corals (Acropora), Halimeda, Caulerpa, Asparchadopsis, & Bryopsis; lagoon water was taken. Island soil was collected in tent collecting area.

Inside tent MX-5 = 12 mr/hr.

" " Cutie Pie = 16 "

Outside, near tent MX-5 = 18 "

Cutie Pie = 30 "

Along road toward Pres MX-5 = off scale > 20 mr/hr.

At beach NW of Pres " " = 18 mr/hr.

Along road from lagoon to airstrip 55 mr/hr on Cutie Pie

A 300-lb. brownish sea bass, Epinephelus was caught off the ^{dog} pier today and brought to the Recreation Bldg. on a pallet.

Saw several rats as we walked from beach to pickup some fat and juicy and slow. Algae hot, over 10 mr/hr on monitor's survey meter.

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Locality EIMER Date May 20, 1956 SUN.
Personnel Bonham - Palumbo Weather Rainy
Water conditions _____

Radiation level(s) _____

Operations:

A.M. Lab routine

P.M. Printed Panage pictures - John Harding

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on following day (entered here to use the space), 21st, we weighed out a K_2CO_3 standard following the idea used by NYOO for calibrating their counters. Their laboratory has recently determined the emission rate of this 1.3-1.4 mev β to be 197 d/m/200mg. The counting efficiency may be determined by making a standard plate to simulate the amount and spatial distribution of the material being counted as samples. In their tape strips of samples, there is introduced an occasional standard of this kind, as well as blanks for Bq. One A standard simulating our samples, ^{and not filling the entire plate} weighed 458 mg (450 d/m); counted in our 3 units, this gave efficiencies for: EMBL-1 = 16%, EMBL-2 = 16%, and EMBL-3 (Rate Meter) = 12% (because the sample holder is more distant than in 192). Our greatest source of error is in the spatial distribution of the samples on $1\frac{1}{2}$ " plates positioned so close to these 1" tubes. For counting out here 1" plates would be better, but we consider our evaluation of the $1\frac{1}{2}$ " plates to be only rough indications of total radioactivity.

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Locality Elmer Date May 21, 1956 Mon.

Personnel Bonham - Palumbo Weather Clear mostly

Water conditions _____

Radiation level(s) 19-26

Operations:

Every body up early,
Lab routine all day
During the evening Col. Schmittke (DMA),
A D Epley (HQ 71) and Col. J D Fowlk (J-3 HQ) visited
the lab to inquire as to the progress being made
in expediting

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Locality Elmer Date 5-22-56 Tues.
Personnel Palumbo & Bonham Weather Mostly cloudy
Water conditions Moderate - rough

Radiation level(s) 17-26 Bq.

Operations: Counted decays & standards.
Collected Asparagopsis, sponges, Ptychodera,
and a Salarias from Lab. Reef for monitoring;
counted almost background.
Received AVX that ship^{ment} delayed; ETA 6th
7th; no information on box designations
by Stittler to transfers to land shipment
Hawaii, as would be necessary to get it her
re 6th when Walton is due. To elucidate,
shipment were to arrive Elmer, 6th-7th and
wait 2 days to off-load, the Walton, arriving
would be idle 2-3 days, which liason
personnel very much want to avoid.

Continued Asparagopsis work

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Locality Elmer Date 5-23-56 Wed.

Personnel Palumbo & Bonham Weather Partly cloudy

Water conditions Rough.

Radiation level(s) 20-28

Operations: Sampled asparagopsis & sponges on Lab Reef - Sponges = 140 g/m² net.

Received mail from Lab: Vouchers signed & returned, letter from Ed re. standard RADIE

306 & " " " samples sent

Mailed 3 days' log sheets to Seattle

Received 1 roll coastal code for 1 RD from N.Y. ^{Tanet}

Ran abs after above on red fragment of Asparagopsis.

Marking 5,000 c/m

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Locality _____

Date

5-24-56 Th. (Cont'd)

Personnel _____

Weather _____

Water conditions _____

Radiation level(s) _____

Operations:

end of the housing to the inner support, springs.

The high voltage on the second decascaler, EMBL, went off last. The NYOO electronic experts say it is in the transformer. They will run it down some evening when they get time.

Ralph got prearranged for tomorrow's trip to the outer beach. Edna - her Stugelab. accumulated dosages. Palumbo 50 mR; KB = 70 mR; 20 mR in air. Rad safe report.

Dr. Kevin F. Blake, and Francis W. Badale who will go along for fishing tomorrow.

0900 - With UDTmen, Schlegel and Hazelwood to help pick up sediment trays in 30-40 ft SW water; After which we used up a full tank looking around.

Collected sand sample, Halimeda, water, and coral at 35 ft. depth. Broke starting cord on Johnson motor. Also collected helmet shell, fungia, anemone, and 1 Conus marbaleus. Halimeda hotter than

Sidra collected on outer reef on Mwanan area.

Rate meter used for hot samples, since other two scalars balk at 10,000 c/m.

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Locality Elmer, Edna, Flora, lagoon Date 5-25-56 Fri.

Personnel Palumbo, Bonham. Weather Good; mostly sunny

Fishermen: L.F. Blake & F.W. Badali. Water conditions moderate; lagoon
NYOO - E.R. French. w/ slight swells.

Radiation level(s) 50 mr/hr at Flora

Operations: Finished assembling equipment and personnel.
Departed Elmer 0800 by M-boat 273 w/ DUKW
379, aboard boat directly to Gene; off Tilda
Blake and F.W. Badali immediately. Badali caught tonight
but Blake did not. Blake caught a jack
M-boat landed the
DUKW passengers at Gene, ^{10:50 AM} failed to remain
at Gene (Engelb) which is now much
intending, having been built
the lagoon side. Landed, and
offshore E end of Edna.
clams about same size. Probably surf
rather than radioactivity limits growth here.
Collected coral clam mantle, ~~off~~ on outer reef,
in narrow boulder area outside Flora
shore to sand spit of NE Edna where
returned & pre-recorded fish, getting mainly
small wrasses, groupers, and misc. tiny
fish & collected hermit crabs at Flora. Ralph
buried plants on Edna. Collected 3 plant specimens.
DUKW departed Edna 1215 for Gene where
arrived in marsh, courtesy of Dan Jones.
Departed Gene 1330 in M-boat w/ DUKW.
Off Gene - Janet 1345 -
Mack tower in lagoon (off Wilma)

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Locality _____

Date

5-25-56 Fri (Contd)

Personnel _____

Weather _____

Water conditions _____

running south 14:50-15:05, and third
from 15:10 in Deep Entrance running E
from 15:15 red buoy to point opposite (S)
16:07 - 16:32 (25 min). First 2
mussels (in lagoon) mostly radiolarians,
many arrow worms in D.E. haul.
Water temp 80.5°F in lagoon hauls, and
80°F at 16:50. Arrived Elmer 16:50; monitored
"mission tides", turned in containers
and unloaded at Lab.
Gulley caught tonight on return
trip. It reared it in slowly and so
got only the anterior 1/3 of it, the rest
being inside the 3-4 foot sand shark that was
followed it to the boat.

Mike Olden delivered to us the papayas, 1 ripe
and 2 small green, and 1 green coconut that had
been sent over, courtesy Bot Taft, from the JTF
group that had been to Rongelap.

Worked up some samples.

Photographed a Chaetodontid with an
unusual concentric light banded pattern on
dark background; taken by Tatom & partner
on lagoon side of Elmer air strip 5-24-56 by
flashing through head; Robot 32-35 by artificial
light Kodachrome, and Welta camera b. & w.
General collection w/MX-5. Very hot.

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Locality Elmer Date 5-26-56 Sat.
 Personnel Palumbo, Bonham Weather _____
 Water conditions _____

| Radiation level(s) | Operations | Count |
|--------------------|---|------------------------------|
| | Using MX-5, Ser-17466, monitorial around lab | 0.03 m/hr |
| | lab reef, background | 2 |
| | collections of coral by Lab | 3 |
| | Plankton nets after rinsing in salty fresh water, and drying, stored overnight. | #1 (coarse) 3 #2 (fine) 5 |
| | 0.5 | 0.5 |
| | 0.5 | 1.0 |
| | 0.5 | 0.5 |
| | 0.05 | 0.5 |
| | 0.5 | 3.0 |
| | 0.03 | 0.1 |

Prepared plant samples collected at Rong elap by Ritchie (Task Force Rad Safe Officer). Saving remainder for chemistry if desired.
 Wet sample of Rongelap papaya counted.

Sponge & letter to Lab. Sponge from lab reef counted 380/m/1.3g wet.
 20% of Rongelap natives do not wish to return to their homes if our survey shows it to be ok.