

CRUISE 1
STATION REPORTS

DATE	STATION	POSITION	WATER TEMPERATURE	DEPTH OF WATER
14 July '63	1	32° 39' N 117° 15' W Flying fish (three) flew aboard during night. One was still alive when picked up at westerly end of station. <i>Cypselurus Californiensis</i>	18°C	15-1000 FMS
14 July '63	2	31° 51' N 120° 18' W 1 M open plankton net, 250 M wire out, catch heavy in Pelagic tunicates, <i>Salpa fusiformis</i> predominating, but <i>Thalia democratus</i> also present. Other organisms noted: Euphausiids, Calanid copepods, and <i>Saphirina</i> and <i>Gaussia Pacifica</i> , the Amphipods <i>streetsia</i> and <i>phronima</i> , <i>Chaeton aths</i> , a few <i>Annalids</i> , <i>Peneid</i> larvae, fish larvae.	20°C	1600 FMS
15 July '63	3	31° 31' N 122° 41' W 1 M plankton net w/o weight, estimated maximum depth of net 500 M. Catch included <i>Cyclothone signata</i> , <i>Lampanyctus Mexicanus</i> (2) and a few fish postlarvae, <i>Salpa</i> , many <i>Thalia democratica</i> , 2 <i>Carinaria</i> , few <i>Atolla</i> , unknown <i>Cubomedusa</i> , several <i>Gaussa Pacifica</i> .	21.3°C	2100 FMS
17 July '63	4	31° 4' N 127° 31' W Used hand dip net from hydrographic winch platform. Catch, <i>Velella lata</i> , large individual, undamaged, no ectoparasites of any kind. Also caught in dip net; stalked barnacles - <i>Lepas</i> on wood with these Nudibranch <i>Fiona pinnata</i> and egg coils on wood. Also small bluish-white crab.		
18 July '63	5	31° 06' N 130° 06' W Used hand dip net from hydrographic winch platform. Catch, <i>Velella</i> - without ectoparasites, <i>Velella</i> - with <i>Janthina</i> , <i>Velella</i> - with Nudibranch, <i>Fiona pinnata</i> , <i>Velella</i> floats, complete denuded of animal tissue with coils of eggs of <i>Fiona</i> . <i>Velella</i> floats with blue stalked barnacles, crabs		
19 July '63	6	30° 55' N 133° 30' W 1 M plankton net at est. 35 M depth. Catch; primarily Copepod. Other organisms; <i>Phyllirhoe</i> .		2600 FMS
20 July '63	7	30° 28' N 136° 42' W 1 M plankton net, at est 220M depth, sparse Copepod Plankton with a few Heteropods (<i>Pterotrachea scutata</i>) Pteropods (<i>Cymbulia peroni</i>) and Euphausiids.	20.7C	2500 FMS
21 July '63	8	29° 37' N 140° 10' W 1 M plankton net, 120-OM depth. Catch sparse but varied; Colonial radioparians, Mysids, Copepods, Medusa, Pteropods, fish larvae, <i>Sagitta</i> , Decapod larvae, <i>Lucifer</i> , <i>Sergestids</i> , <i>Poychaets</i> , (<i>Alciopids</i> and <i>Tomopteris</i>), Euphausiids (<i>Thysanocessa</i>), <i>Halobrates</i> , <i>Myctophids</i> and 1 <i>Leprocephalus</i> .	20.5C	2700 FMS
23 July '63	9	25° 50' N 144° 08' W Squid (about 10 cm) flew on deck	22.90C	2730 FMS

DATE	STATION	POSITION	WATER TEMPERATURE	DEPTH OF WATER
23 July '63	10	24° 51' N 145° 00' W	23.2°C	2300 FMS
		1 M open plankton net, est. 100 M depth, catch; two immature <i>Phylliroe bucephala</i> , small squid, tow small Annelids, Euphausiids, Copepods, Ostracods, Pteropods, Chaetognaths, Salps.		
24 July '63	11	22° 47' N 146° 04' W	24.5°C	2800 FMS
		1 M open plankton net, est. 75 M depth, many Copepods. Few Euphausiids, Ostracods, small Gastropods, Decapod larvae, Pteropods (<i>Thecosomes</i>) <i>Creseis acicula</i> , <i>Creseis limacina</i> .		
25 July '63	12	21° 57' N 146° 08' W	24.6°C	2800 FMS
		Parexocoetus flew on board during the night. Hydrographic Station No. 1.		
25 July '63	13	21° 40' N 147° 59' W	24.8°C	2548 FMS
		1 M open plankton net est. 70 M depth. Catch; Copepods, Euphausiids, Amphipods, Mysids, Salps, Chaetognaths, Myctophids, interesting elongate Amphipod isolated in vial 12, various Myctophidae.		
27 July '63	14	22° 40' N 153° 19' W	25°C	2700 FMS
		1/2 M. Plankton net, surface, catch very light, one young flying fish, <i>Diacria trispinosa</i> , just completed spermatogenesis, catrophied hermaphroditic gland, copulation just completed. Postlarval Stomatopods, Ctenophore (<i>Hormiphora</i>) <i>Halobates</i> , young <i>Janthina</i> .		
2 Aug. '63	15	21° 23' N 158° 09' W	In port, Nankul Bay (near Hanakun)	
		Cahu Island, State of Hawaii Field trip led by Dr. Alison Kay of the University of Hawaii. Intertidal collection from rocky outcropping from sandy beach. <i>Aplysia Juliana</i> , 5 specimens, tangled egg strings present. <i>Dolabifera</i> , dozens of specimens, very numerous on sides and undersurface of rocks, almost same color and markings as rocks. Egg ribbons attached firmly on rocks. <i>Hexabranhus</i> , one specimen ca 35mm. <i>Haminoea</i> burrowing in sand on rock surfaces. <i>Notarchus</i> , one specimen from small algae. <i>Holothuroideans</i> ca 10 cm discharged very adhesive respiratory trees. <i>Echinometra</i> purple short spines urchins. <i>Ophiocoma bica</i> very common. <i>Aphiurid</i> , (large, all black) <i>Pleurobranchus delicatus</i> Pease, one specimen, bright orange. <i>Stenopus Hispidus</i> "Bandana prawn", misc. sea stars, Bryozoans, etc.		
3 Aug. '63	16	21° 02' N 157° 41' W	26.4°C	
		Dredge tow in 26 fathoms, penguin bank off Molokai Island, Hawaiian Islands. Specimens collected: number of dead coral boulders, some living, small, mostly porites. Boulders covered with brilliantly colored colonies of Bryozoa and Porifera, encrusting coralling algae. Compound Ascidiars. Sparse <i>Hali-medea</i> , a bright green bead-like alga. Found among boulders:		
		1. Large number of Ophioroids		
		2. Large number of Polychaete worms		

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		3. Large number of burrowing bivalves 4. Large number of small Gastropods 5. Alpheids 6. Zoanthids 7. Crabs, Hermit crabs 8. Echinoids - Eucidaris 9. Asteroid - Astropecten 10. Sipenunculoids 11. One Stoamtopod 12. Fish, Carpus, was found living in the shell of a living <i>Liocomcha hyroglyphica</i>		
		1/2 M surface plankton haul taken while hydrographic cast - dredge haul being made. Catch; large number of very small eggs - crab zoeas. Hydrographic Station No. 2.		
3 Aug. '63	17	20° 10' N 157° 50' W	27°C	2500 FMS
		Parexocoetus flew on board		
6 Aug. '63	18	12° 09' N 161° 37' W		
		Study material: 1/2 M plankton haul at surface. Catch: mainly bright blue Copepods, egg chains, colonial radiolaria, 1 fish larva. Dip-netter from surface (night light), catch: Argonauta, one specimen, several small Gastropods, several flying fish, one small octopus. At 2000 hours, 1 M plankton haul made, catch: large Decapods, Euphausids, Amphipods, fish larvae, Copepods, Salps. At 2200 hours 1/2 M plankton net haul at surf (10 min.), catch; mainly Salpes, Siphonophores and a few Copepods. Hydrographic Station No. 3.		
8 Aug. '63	19	8° 00' N 164° 33' W	28.2°C	4900 FMS
		21' Tucker trawl at est. 1400 M. Catch; mainly fishes and Decapod Crustacea. Also Eurypharynx, Chiasmodon, Scopelengis, Melamphaeids, Myctophids, Cyclothone, Memichthys, Avocettina, Leptocephalus, Psenes. Several large red Carids. 4 species Euphausids, Copepods, a Nemertea 14 cm long, Tomoptedis, Pelagothuria, several Cranchid squids, small Pyrosomes, Atolla. 50 cm net - surface, catch; Siphonophores, Medusae, Euphausids, Heteropods. Open 1 M plankton net, est. greatest depth 50 M, catch; Pyrosomes. Hydrographic Station No. 4.		
12-13 Aug. '63	20	0° 44' N 168° 00' W	28.4°C	4400 FMS
		21' Tucker Trawl. Gear trailed strongly to the east in spite of westerly surface drift, (Cromwell Current) Est. greatest depth 1050 M. Gear badly damaged, pipes bent, net torn. Catch; Pyrosome colonies, Salps, Medusae (3 species), Siphonophores, Mysids, Euphausids, Decapods, a huge Phyllosome Larva, Amphipods, a very large Isopod (ca 6 cm), Tomopteris, squids (2 species), Pelapth uria, many. A very varied group of Bathypelagic fishes, Avocettina, Scopelengys dispar, Melamphaeids, Sternoptyx, Gonostoma, Cyclothone, Malacosteus, Melanostomatids, Ceratoids, Myctophids, Leptocephalids, etc.		

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19 Aug. '63	21	<p>At 1600-1700 made 1/2 M plankton net, surface, catch; Copepods (larger blue and smaller orange). Small Sagitta, Radiolarians (very numerous), Heteropods (Ficcoloida), Oikopleura, Porpita (one small). Used dip net under night light, catch; Myctophum (2 specimens and 2 species), Tylosurus. Hydrographic Station No. 5.</p> <p>14° 40' S 170° 42' W</p> <p>In Port Pago Pago, Tutuila Island, American Samoa. A shallow lagoon inside a fringing reef in an area where construction of an airstrip is underway. Bottom of coral rubble and sand, a few inches to about 5' deep. Between extensive beds of Acropora. The Acropora was under about 6" of water when we started and about 6" exposed when we finished. About 1 liter of Noxfish Special spread in a 12' diameter hole in the Acropora drifted out through the channel rather fast. Collection includes all fishes seen dead or incapacitated.</p> <p>Includes the following families: Clupeidae, Muraenidae, Eclidiidae, Atherinidae, Holcentridae, Apogonidae, Mullidae, Serranidae, Rutianidae, Pomacentridae, Zanclidae, Chaetodontidae, Acanthuridae, Paropercidae, Labridae, Scaridae, Siganidae, Aleuteridae, Balistidae, Traodontidae, Scorpaenidae, Blenniidae, Gobiidae etc. C.A. 80 sp. Hydrographic Station No. 6.</p>		
19 Aug. '63	22	<p>14° 5' S 170° 40.8' W</p> <p>In Port Pago Pago Harbor, Tutuila, American Samoa</p> <p>Made surface tow with 1/2 M net behind Boston Whaler, starting at reef at Goat Island and proceeding due north across harbor and then back to ship moored at fuel pier, speed 1-2 knots. Collected an extremely rich haul consisting of a great many Lucifer, many Ostracods, Camaceana, Heteronereids. (Above reef at Goat Island) Pteropods, Zoea larvae, Carid larvae, Ctenophores, Fish larvae</p>		
21 Aug. '63	23	<p>15° 42' S 176° 46' W</p> <p>Open 1 M plankton net, 400 M wire out, wire angle 35°. Estimated greatest depth 325 M.</p> <p>Very poor haul; Siphonophore (to Mariscal)</p> <p>Cliospp - c.a. 15 specimens. Few Euphausiids, 1 Alciopid poychaete, 1 Doliolom, 1 Leptocephalus, few battered fish larvae, few Copepods, 1 specimen of the Euphausiurial genus Thysanopoda.</p>	27.1°C	2400 M
23 Aug. '63	24	<p>17° 30' S 179° 30' E</p> <p>Flying fish flew on board during night.</p>		1400 FMS
26 Aug. '63	25	<p>18° 6' 55" S 178° 22' 45" E</p> <p>Suva harbor, Kumbuna Creek draining into Naingalongalo Harbor, Suva. Poison station and shore collecting in small bayou, ca 15-20' wide and 3-8' deep. ca 300 yards from main stream. Water brown, visibility ca 1, mud bottom, sides dense mangroves, roots covered with barnacles (chthamalus) littorines common, also grapsoid and hermit crabs, a few small mussels and Neritas, fiddler crabs.</p>		

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		Fishes of following families: Engraulidae, Muraemidae, Ophichthyidae, Hemirhamphidae, Mugilidae, Apogonidae, Theraponidae, Lutianidae, Serranidae, Scatophagidae, Leiognathidae, Gerridae, Monodactylidae, Gobiidae, Eleotridae, Tetraodontidae, etc. (ca 35 sp.)		
27 Aug. '63	26	18° 44' 54" S 178° 30' 44" E		17 FMS
		Ship moored over Great Astrolabe Reef just north of Vanuakula Island. Surface plankton collected with 1/2 M net hauled at surface through area illuminated by night light. Catch; larval fishes, Amphipods, a few Copepods, Mysids, some branched filamentons, green algae, crab larvae. Fishes taken at surface with dip net.		
28 Aug. '63	27	18° 50' 30" S 178° 32' 10" E		
		Shores of Mbulia Island within Great Astrolabe Reef. Skin, scuba diving just off shore. Corals: Seriatopora hystrix (with galls of crab), Haplocarcinus marsupial, Acropora, Montipora, Funcia fungites, Favites abdita, Goniastrea, Lobophyllia corymbosa, Coeloriaspa, Millipora, Platyphyllia, Tubipora musica. Alcyonarians: Xenia, Sarcophyton, Sinularia Lamellate sponge, extremely common Echinoderms: Linckia laevigata + other asteroid, and dark purple Crinoid. Holothuria astra, Stichopus chloronotus Molluscs: Tridacna, Cypraea, Trochus pyramidalis, Octopus Conus. On rocks or near them on the shore: Nerita, Cerithiids, Polinices, Planaxis Sulcatus. Crustacea: Alpheids and other carid shrimps. Commensal shrimp in Tridacna (carid). Hermit crabs all along shore line. Poison station, ca 15-20' off shore from sandy beach. Bottom, mixed living and dead coral. Depth 2-10 feet. Fish: Apogonidae, Mullidae, Serranidae, Pomacentridae, Chaetodontidae, Holoridae, Labridae, Scaridae, Acanthuridae, Siganiidae, Tetraodontidae, Scorpaenidae, Gobiidae, Eleotridae, Brotulidae, Hemirhamphidae, etc. (ca 55 sp.)		
29 Aug. '63	28	17° 40' S 176° 5' E		
		En route from Fiji to Tikopea. 1 piece floating alga dip-netted from surf. 1 piece pumice netted. 1 small trigger fish caught with it. Fish matched color and pattern of pumice (black and covered with very small white Lepas). It stayed under pumice in bucket and tank. One small grapsid crab also on pumice.		
30 Aug. '63	29	15° 24' S 172° 45' E		
		En route Fiji to Vanikoro. One flying fish on board.		

DATE	STATION	POSITION	WATER TEMPERATURE	DEPTH OF WATER
31 Aug. '63	30	14° 16' S 171° 46' E	25.9°C	1800 FMS
		10 by 20' modified tucker trawl, meter wheel non-functional, estimated greatest depth of gear, 2000 M. Catch very poor. Fishes: one Astronesthid, two small Melanostomiatids, a few Cyclothone, one Leptocephalus, Salps, Amphipods, Pteropod. Hydrographic Station No. 7.		
1 Sept. '63	31	13° 00' S 168° 25' E		
		Between New Hebrides and Vanikoro Island. 1 M plankton net haul. 400 M. wire.		
2 Sept. '63	32	11° 42" S 167° 51' E		
		Plankton tow in lagoon of Vanikoro Island		
2 Sept. '63	33	11° 38' S 166° 99' E		
		River in mangrove swamp. Some collecting of Gastropods done in the fresh stream itself; Vanikoro Island. One Periophthalmus, Pagurid crabs, Lamellibranch with associated crabs.		
2 Sept. '63	34	11° 42' S 166° 50.5' E		
		Mangroves at edge of sea (clear water). Gastropods, hermit crabs.		
3 Sept. '63	35			
		Poison station, just inside reef entrance, Vanikoro Island. West side, very little current. Very rich reef, with great number of species of living corals. Crinoids (4 sp. at least), Ophiuroids, Holothuriansa (3 sp. at least), sponges, Alcyonarians (at least 6 sp.) Gorgonians (2 sp.) Anemones (at least 3 sp.), Echinoids (Echinometra mathei + dark purple sp.), Echinoids (Diadema setosa), Forams, v.c. on Halimeda, 2 dead corals. Fishes: Muraenidae, Holocentridae, Apogonidae, Pomacentridae, Serranidae, Chaetodontidae, Pomacentridae, Acanthuridae, Cirrihitidae, Labridae, Blenniidae, Clinidae, Broulidae, Gobiidae, Balistiidae, Monacanthidae, Canthigasteridae etc. (ca 70 sp.)		
4 Sept. '63	36	11° 07' S 163° 24' E	82.5°F	1300 FMS
		10 x 20' modified tucker trawl. 1 Chisocephams, 2 Stomatopod larvae, 2 Chauliodus, 2 Gonostoma, Pteropods, 1 Heteropod (bad condition), 2 sp. Caridian shrimp, many Siphonophores, Pyrosomas, 2 Medusae		
5 Sept. '63	37	10° 05' S 161° 21' E		2000 M
		Off Cape Recherche, San Cristobal Island, Solomons. 1 M open plankton net. 125 M wire out, estimated greatest depth 75 M. Several Pteronpods (Corolla). Hydrographic Station No. 8.		
6 Sept. '63	38	10° 07' S 161° 19' E		2000 M
		Off Cape Recherche, San Cristobal Island, Solomons. 1 M open plankton net, 200 M wire out. Estimated greatest depth 100M		

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7 Sept. '63	40	8° 57' S 157° 46' E		984 FMS
		Surface tow with O.S.M. net -- full of garbage. Water striders, Halobates, Phyllosoma Larva of family Palinuridae, 1 Ctenophore, 1 Leptocephalus larva, Euphausids, Copepods, Ptonopds, Chartognaths, Moyalops. Hydrographic station No. 9		
7 Sept. '63	41	8° 57' S 157° 46' E		1800 FMS
		15 miles south of Vangunu Island, 7 miles west of submarine volcano. Tow of 1 M plankton net. Estimated depth, 25 M. Full of garbage. Very dense haul. Many fish larvae, 1 cm in length. Leptocephalus larvae of eels. Alimo larvae of Squilla, 2 different types. Phyllosoma larvae: 1 of family Palinuridae, 1 of family Scyllaridae, Myctophids, Chaetognaths, Salps, Scyphomedusae, Cubomedusae, Copepods, Euphausids, Oxycephalid, Amphipod, Phabdosoma. Bulk of haul, Euphausids, all stages in life history.		
8 Sept. '63	42	8° 26' S 157° 11' E		
		About 8 miles southeast of Munda Point, New Georgia Island and about eight miles east of Rendova Island, Solomons. Broken open cocconut dip-netted from surface convergence. In net were 3 small fish of two species and two small Portunid crabs. A small piece of palm leaf dip-netted shortly after this bore another small Portunid.		
8 Sept. '63	43	07° 51' S 156° 54' E		
		Vella Gulf between Vella Lavella Island and Kolombangara Island, Solomons. Surface USM net, plankton haul. Many blue Coppods, Chaetognaths and debris. Piece of Tubinaria with small Gastropods and a piece of a Sargassum-type alga with colonies of what appears to be Membranipora. Also one small fish.		
10 Sept. '63	44	6° 12' S 155° 37' E		
		Arawa Bay, Bougainville Island, B.S.I.P. Rocky point collections: some Echinoderms, Gastropods, Coweries, Eonus, Haliotis, et al. Baguridae, Brachyuva. Also noted were Pallinoridae, Acanthastaster, and a very large Octopus.		
10 Sept. '63	45			
		Transect, East shore of Arawa Bay, Bougainville Island extending outward in shallow water from shoreline. A little fish poison spread in ca 2 of water among eel grass growing in sand.		

DATE	STATION	POSITION	SURFACE TEMPERATURE	DEPTH OF WATER
15 Sept.'63	46	4° 6' 30" S 152° 10' E Reef near Nonga (on opposite side of Crater Peninsula from Rabaul New Britain. Description; relatively few species of coral (Acropora, fungia), much dead coral. Beach with fine black sand. 2 sp. Nudibranchs (sitting on coral). Many anemone fish and anemones (R. Mariseal)		
16 Sept.'63	47	3°49' S 149° 49'E "Isobel Bennett Bamboo Island" ca 100 miles north of New Britain. A tuft of bamboo (more than 50 stalks sticking 20 ft. above water and extending about 25 ft. below the surface to a mass of roots and soil ca 10 ft. in diameter) A five minute haul with 1/2 M plankton net. Fish poison not very successful because sharks drove us out of the water and most of the fishes sank. Cestum in fair numbers. (Disintegrated when attempt made to preserve.)		
20 Sept.'63	48	02° 30' S 140° 42' E Alongside ship netted from harbor. Kotabaru-haven W. Irian. Cubomedusae. 2 small fish dip-netted from enormous school of many hundreds around wharf piles.		
20 Sept.'63	49	02° 07' S 140° 10'E North of coast of West Irian - ca 5 miles off shore. Stomach contents of 30 lb. yellowfin tuna; Neothynnus macropterus. 12 sp. fish, 1 or 2 sp. squid, 2 or 3 sp. of Stomatopod, 1 sp. shrimp.		
21 Sept.'63	50	Off northwest New Guinea, East of Japan Strait. One sp. of Sphyræna picuda. Bloch taken on line. 3 Argulids removed from external head region. 0° 54' S 138° 30' E		
22 Sept.'63	51	0° 6' S 136° 0' E 38 miles north of Biak Island, Schouten Group. Towed 1 M plankton net 0835-1045. Contained: 2 Phronima, Salps, Heteropods (Atlantids), Pteropods, fish larvae, Copepods, Prosobranch veligers numerous, few Chaetognaths, Alcyonarian planulae (large clam), Mysids. 1/2 M plankton net tows taken at surface; first for 20 minutes second for one hour....contents similar. Copepods, Oxycephalid amphipod, Siphonophores, Heteropods, Pteropods, Isopods, Prosobranch veligers, few Chaetognaths, Diaoni extremely thick.	28.8°C	approx. 270 M
23 Sept.'63	52	0° 52' N 132° 53' E North of western New Guinea (Vogelkopf). Distance from land ca 12 miles. Floating stick of bamboo picked up by hand. Number of crabs (Pachygrapsus Marinus), Lepas taken for Dr. Folsom, (piece put in ship collection). Piece of floating wood picked up by gaff and rope lasso, 1 M long, 1/3 M diameter: Amphipoda, Lepas anatifera, Pelecypods (2), crabs, Polychrete (Amphinome rostrata)	29.4	2000+ FMS

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24 Sept. '63	53	1° 20' N 128° 01' E Entrance to Kau Bay, Halmahera Island. Dip-netted around submersed and surface lights from ship at anchor. Using plankton net and various dip-nets, each 18 fathoms. Sea snakes (2 sp) flying fish, Antherinids, mullet, Myctophids, Clupeids, Leptocephalus, pipe fish, many fish larvae (several sp), Alima larvae of Squilla, Mecalopa, Zoea stages of crabs, Mysids, Polychaetes, octopus, very small, Nudibranch, Cubomedusae, Rhizostome medusa.		
25 Sept. '63	54	01° 8.6' N 128° 01' E Teluk Kau, Halmahera, ca halfway up bay, just inside narrows and on sill outside of Terminal Basin. Bottom sand and shell. 6' beam trawl on bottom 1/2 hour. Fishes: Serranidae, Aleuteridae, Bothidae (2 sp), Pleuronectidae, Cynoglossidae, Alcyonarians, solitary corals, Polychaeta, mollusca, mostly Gastropods, dead shells only. Echinodermata, Asteroids, Ophiuroids, Echinoids, Crinoids. Crustacea: Decapoda, Penaeid prawns, Alpheids Pagurids, Portunid crabs and several other sp. Medusae dip-netted from surf waters, 3 sp. Hydrographic Stations No. 10, 11, 12.	29.20	25-30 FMS
25 Sept. '63	55	1° 53.5' N 127° 39.4' E At anchor, Bobane Bay, Teluk Kau, Halmahera. Dip-netted from surface water around floodlight. Fishes; 2 flying fish, Atherinids, Porunid crabs. 1/2 M plankton haul, surf, few minutes, almost pure catch; Radiolarians, few tiny Chaetognateis, Copepods.		
26 Sept. '63	56	0° 55' N 127° 49' E Teluk Kau, Halmahera, inner basin. Bottom, plant debris and fine green mud with slight H ₂ S smell. 6 foot beam trawl towed for 1/2 hour. Few squilla, 1 Carid shrimp, 1 Penaeid prawn, 2 Portunid crabs.	29.4°C	460 M
26 Sept. '63	57	1° 10' N 127° 55' E Teluk Kau, Halmahera. Poison station in hold of wrecked ship off Kau village. Hold ca 20 x 20 feet and 12 feet deep. Pomacanthidae, Chaetodontidae, Lutianidae, Carangidae, Pomacentridae, Scaridae, Labridae, Echineidae, Syngnathidae, Blenniidae, Gobiidae. Heavy encrustation of oysters on rusted hull. Collection of Gastropods (ca 9 sp), collection of bivalves (ca 6 sp) collection of barnacles (Tetraclita and Ibla sp)		
27 Sept. '63	58	01° 31' N 128° 13' E Outer section of Teluk Kau, Halmahera. Bottom green mud. 6 foot beam trawl towed for 1/2 hour. Haul consists mainly of Decapoid Crustacea; largely Carid shrimps, few Penaeids, 1 Cechalopod, 4 Holothurians (battered), Medusae (battered), few Polychaele worms, Pogonophora.	28.9	525-570 M

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2 Oct. '63	59	6° 54' N 122° 04' 30" E Zamboanga, Minanao Island, Philippines. Penaeid prawns, 2 sp. Palinurid spiny lobster (from local coral reef), purchased from fish market.		
6 Oct. '63	60	4°44' N 113° 23' E South China Sea ca 60 miles off coast of Sarawak, Borneo. Bottom very fine gray mud. Six feet beam trawl on bottom 35 minutes. Hydroids, a few broken Alconarians, Bryozoa, mol- luscs (mostly dead shells, few Polychaetes, Echinoderms). 1 large red sea urchin, 2 sp. Asteroids, few Ophiuroids, Crinoids, heart urchin, Tunicates, Crustacea, few crabs, shrimps, Syllarids Istomatopod. Fishes: Ogcocephalidae, Lophiidae, Gobiidae, Scorpaenidae, Pleuronectidae, Cynoglossidae.	29°C	100M
7 Oct. '63	61	3° 45' N 109° 55' E South China Sea, off coast of Sarawak, Borneo. Gooseneck barnacles (<i>Lepus Anserifera</i>) taken from large drifting log.		100M