

J. Martin

ALLAN HANCOCK PACIFIC EXPEDITIONS

VOLUME 1

NUMBER 3

GENERAL ACCOUNT OF THE SCIENTIFIC
WORK OF THE *VELERO III* IN THE
EASTERN PACIFIC, 1931-41

PART III

A Ten-Year List of the *Velero III* Collecting Stations
(Charts 1-115)

BY

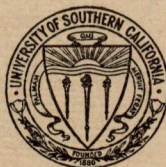
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An Appendix of Collecting Stations of the Allan Hancock
Foundation for the Year 1942



THE UNIVERSITY OF SOUTHERN CALIFORNIA PRESS
LOS ANGELES, CALIFORNIA

1943

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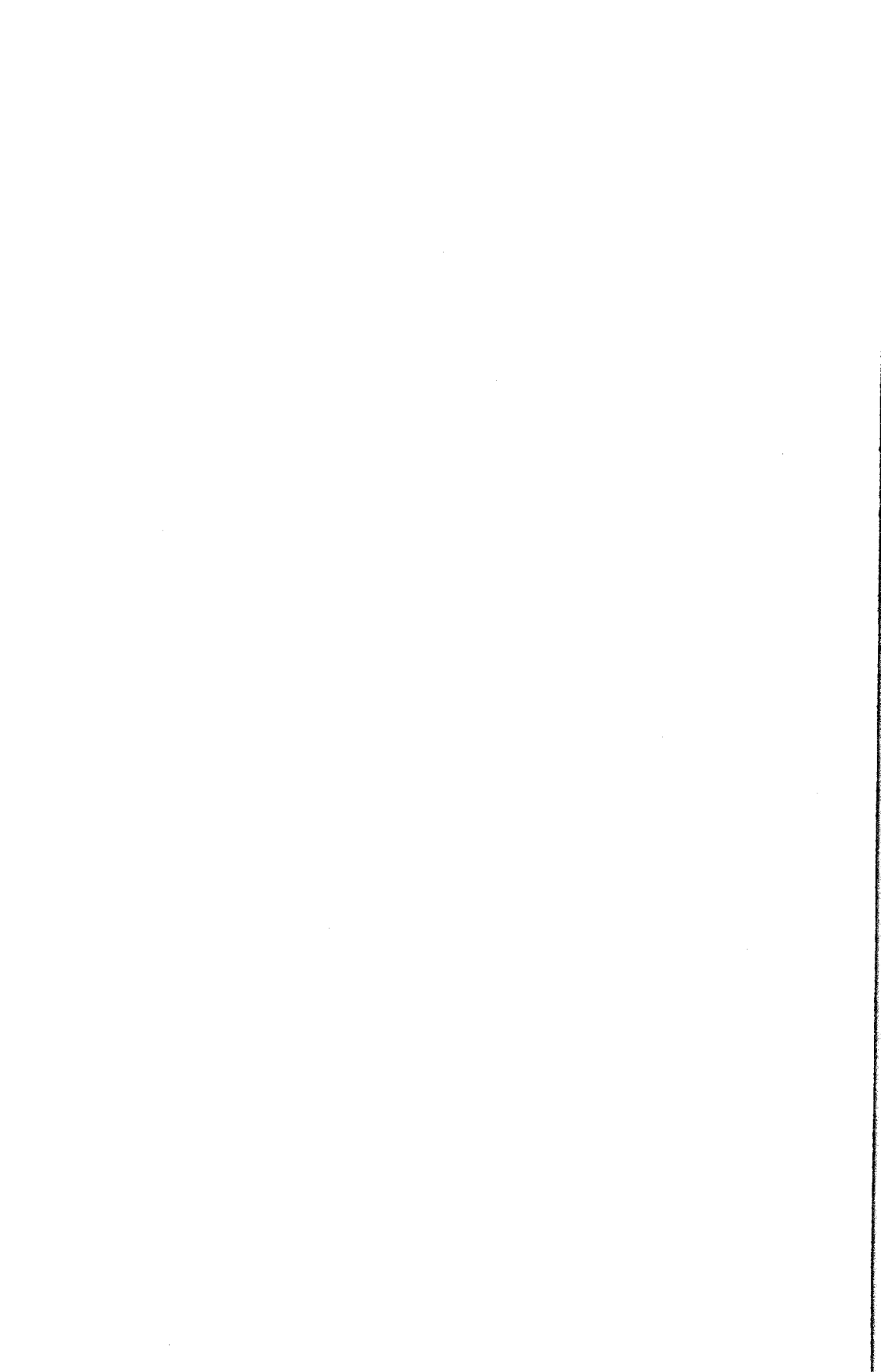
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THE UNIVERSITY OF SOUTHERN CALIFORNIA PUBLICATIONS
ALLAN HANCOCK PACIFIC EXPEDITIONS
VOLUME 1, NUMBER 3
ISSUED DECEMBER, 1943
PRICE \$3.00

THE UNIVERSITY OF SOUTHERN CALIFORNIA PRESS
LOS ANGELES, CALIFORNIA

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GENERAL ACCOUNT OF THE SCIENTIFIC WORK OF THE *VELERO III* IN THE EASTERN PACIFIC

A TEN-YEAR LIST OF THE *Velero III* COLLECTING STATIONS

The *Velero III* has now been in use for Pacific Exploration for ten years. A list of the collecting stations occupied during these ten years, with appropriate data concerning these, is here presented.

The information supplied is a compilation of data, the basis for which has been supplied by the officers of the ship and various members of the Pacific Expeditions. The officers have provided exact geographic positions (latitude and longitude) and depths, in many cases, particularly in the last three years. The Expedition members have made note of positions, depths, and types of bottom, as well as other items of interest very necessary in making up the list.

Of these Expedition members, Mr. John Garth, of the Foundation staff, who has been on all the longer cruises, Mr. Fred Ziesenhenné, also of the Foundation staff, who has been on nearly all the cruises, and Dr. Waldo L. Schmitt, of the National Museum staff, who has been on several of them, have provided the greater proportion of the information, without which the list could not have been compiled.

The primary objective of the Pacific Expeditions has been marine biological investigation, and it is with this investigation that this list of stations is almost entirely concerned.

Most of the stations, especially in the later years, have been dredging stations, although stations where shore collecting has been done are numerous. In many instances members of a shore party have made observations on terrestrial fauna and flora, but seldom has any of these observations been given a station number, unless collections definitely associated with marine investigation were made.

A smaller number of stations represents dipping by using the cargo light at night, when the ship was at anchor, diving, seining, et cetera. Much fishing has been done for taxonomic and life history work, and for work on fish parasites, but ordinarily the fish boat wanders too far afield to place it with a station number.

The *Velero III* exploration is not confined to biological investigation. Observations in physical and chemical oceanography, in geology, and in sedimentation have been made, but the stations occupied, although they have been given numbers, are not included in this list. Ethnology has been

much to the fore, but most of the records here are photographic. The locations are usually associated with the shore stations, but they are not referred to in this list.

In the first long cruise, 1931-32, collecting for the Foundation was rather incidental and was confined to shore and inland collecting near each anchorage used. These stopping places have been numbered in order and the geographic position is given for each; however, the numbers have not the same meaning as the numbers for the later stations. For that reason, numbering for actual collecting stations was again started at "1" on the next cruise, and these have been continued in chronological order since that time.

On the second cruise, starting in late December, 1932, shore collecting was still the chief means of obtaining specimens, although diving, seining, setting lobster traps, and collecting coral heads brought good results. Dredging by hand from a motorboat helped out materially.

On the third cruise, December, 1933, to March, 1934, better equipment for dredging really started a new era. One of the ship's motorboats was fitted up with a power winch, shearlegs, and sorting table and was provided with 250 fathoms of steel cable for dredging. This worked very well and has been used, with some slight changes, ever since.

In 1938 the *Velero III* was equipped for dredging, and this equipment has been used extensively for dredging in deeper water and in shallower water, as well, if the bottom is not too rough.

For shore stations and for those where the motorboat is used, readings of latitude and longitude have not been taken directly, but have been determined from the position of the starting point as shown on the hydrographic charts. They are not of uniform accuracy, as the charts vary much in scale.

Since the *Velero III* has been in action for dredging, the exact position can readily be determined, and it has been so determined at the beginning and the end of the haul. The depth (fathometer reading) also is taken at these times.

When the small dredge is used, the haul is usually short, and two or more are often taken in a restricted area with depth and bottom similar over the area, in which case both or all of these hauls have been included as a single station. When the large dredge is used from the *Velero III*, the hauls are usually longer; however, if more than one haul is made in a restricted area, with depth and bottom similar throughout, the same station number is used throughout, but the hauls are distinguished by letters, a, b, et cetera, following the number.

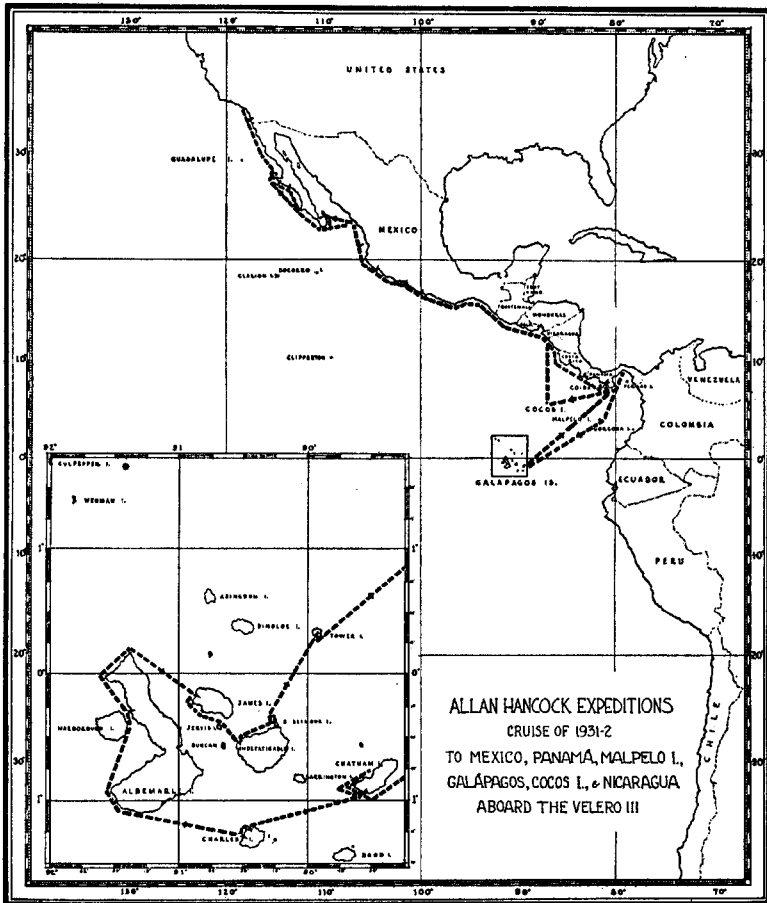
CHART ILLUSTRATIONS

Since to make use of the location of a station as given in latitude and longitude, it is necessary to have recourse to hydrographic charts, a less definite location may be sufficient in many cases, more particularly for one who is familiar with the coast. Consequently, the position of each station relative to some geographic feature, e.g., island or bay, is given as well as the latitude and longitude.

When the list of collecting stations of the Allan Hancock Pacific Expeditions was in progress of compilation, the position of each station with its number was marked on a hydrographic chart. A distinctive color was used for the stations established each year. This provided a visual record of all the stations of such a nature that it is possible to see at a glance the extent of the collecting in each area shown on each chart in each year that this area has been visited. It has done more than this in indicating where it would be most profitable to do further work.

It is out of the question to reproduce these three dozen charts in this publication, but much of the visual aid may be obtained by reproducing numerous small sections of the charts where collecting has been concentrated. This has been done in such a way that the position of all the stations, except a very few isolated ones, is indicated. Tracings were made directly from the marked charts (the chart number and the latitude and longitude indicated in each case), and these have been prepared for reproduction by Mr. Anker Petersen of the Foundation staff.

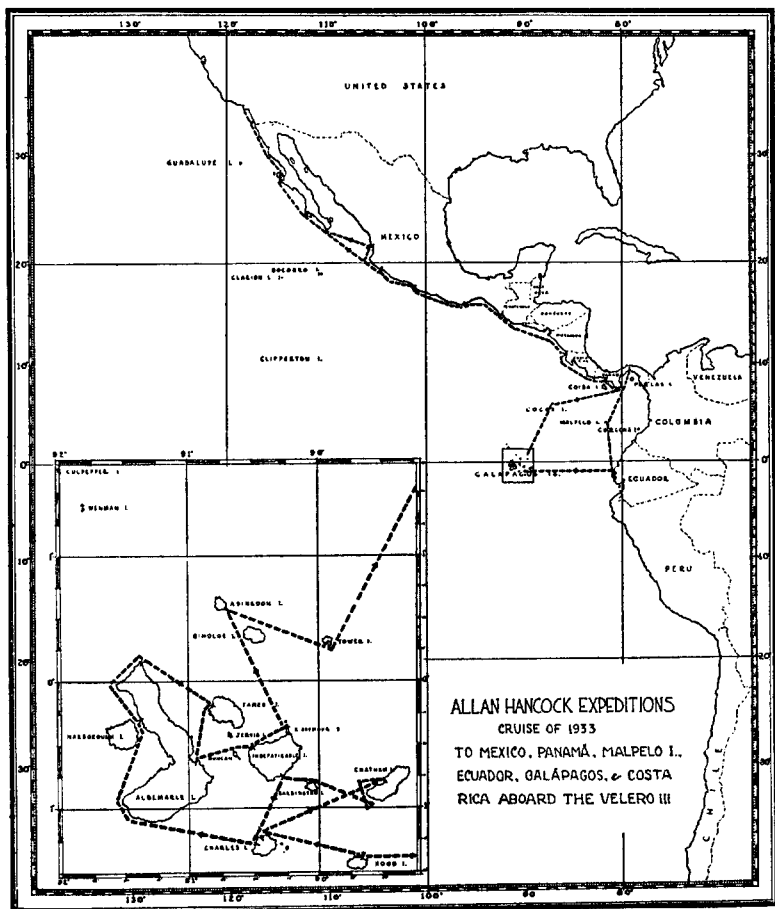
Charts 1 to 10 explain the ten expeditions of the *Velero III* and are called Expedition charts. Number 11 gives the orientation of charts 12 to 18 in connection with the collecting stations of the *Velero III* in Eastern Pacific waters. Charts 19 to 115 are called Distribution charts. (See pp. 368-424 for the list and their localities.)



EXPEDITION CHART 1

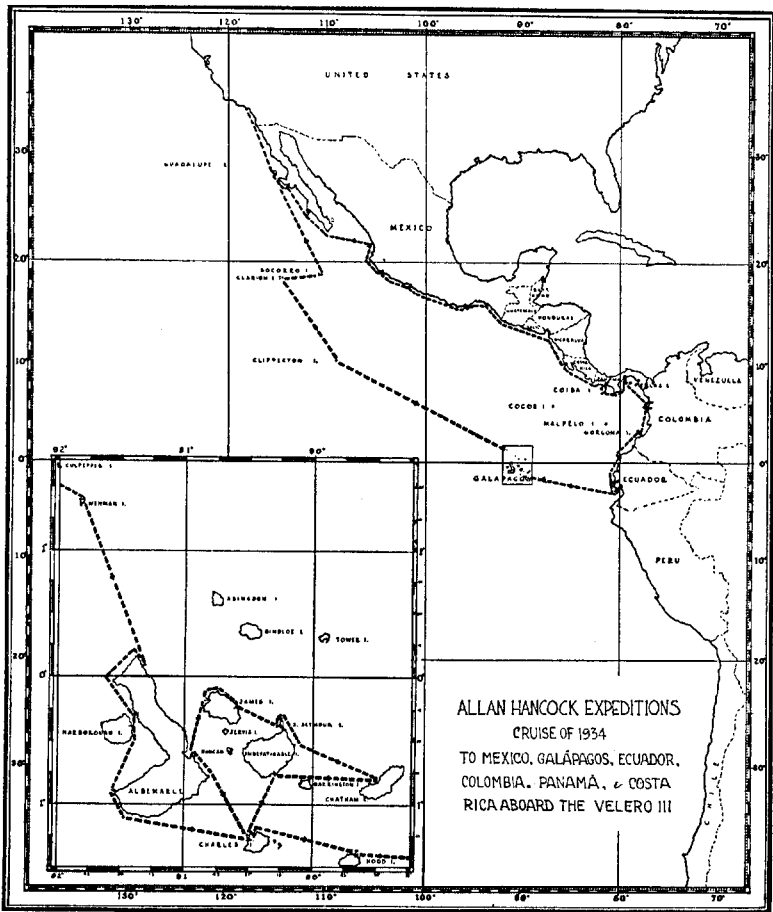
December 3, 1931, to February 27, 1932
Stations 1-23, pp. 272-273

The term Expedition Chart for charts numbered 1-10 has been used here to emphasize the actual areas visited by the *Velero III* and to avoid possible confusion. Official numbers of the Hydrographic charts of the Hydrographic Office of the U.S. Navy appear on the lower right-hand corner as a part of the chart.

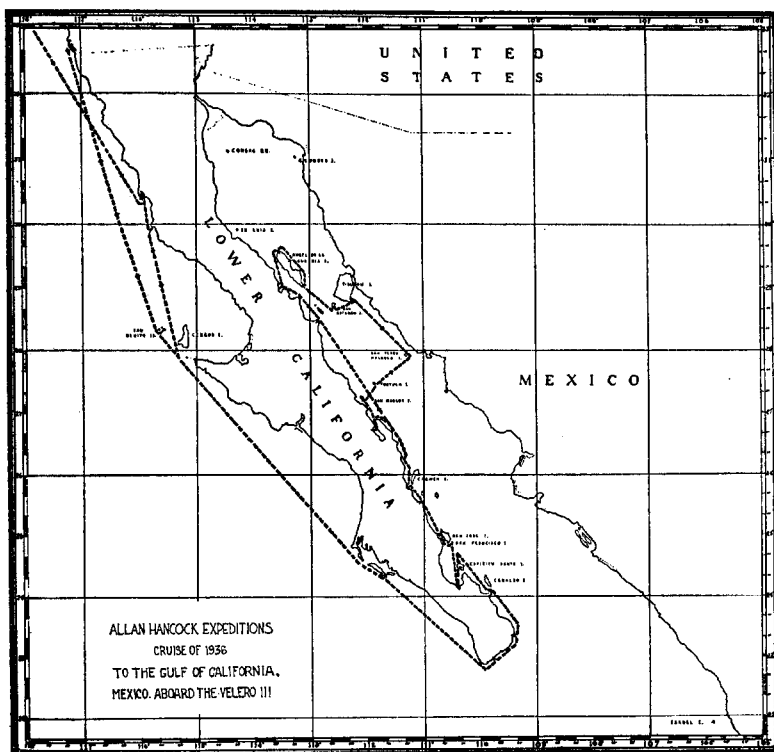


EXPEDITION CHART 2

December 29, 1932, to March 23, 1933
 Stations 1-33 to 127-33, pp. 274-280

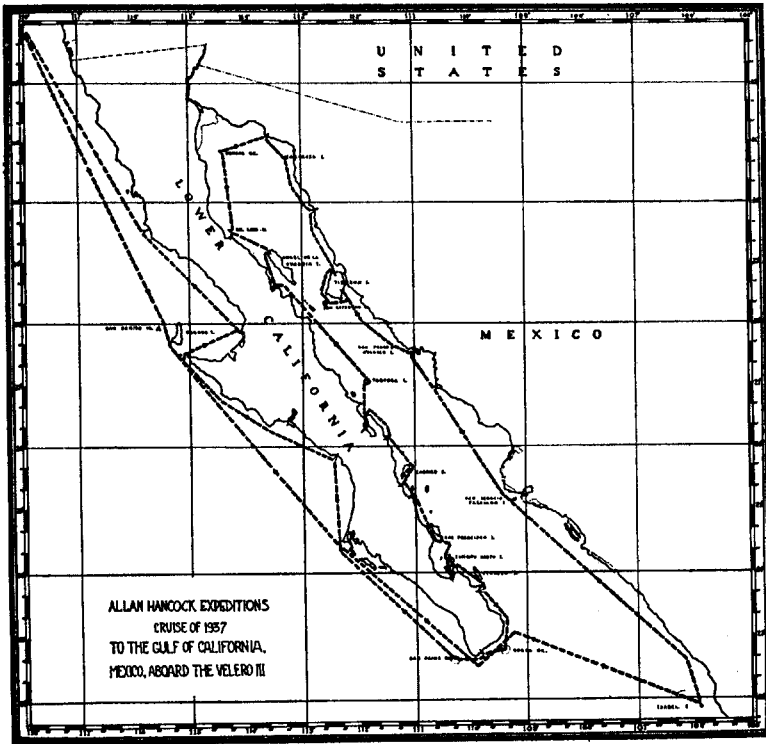


EXPEDITION CHART 3
 December 30, 1933, to March 14, 1934
 Stations 128-34 to 288-34, pp. 280-288

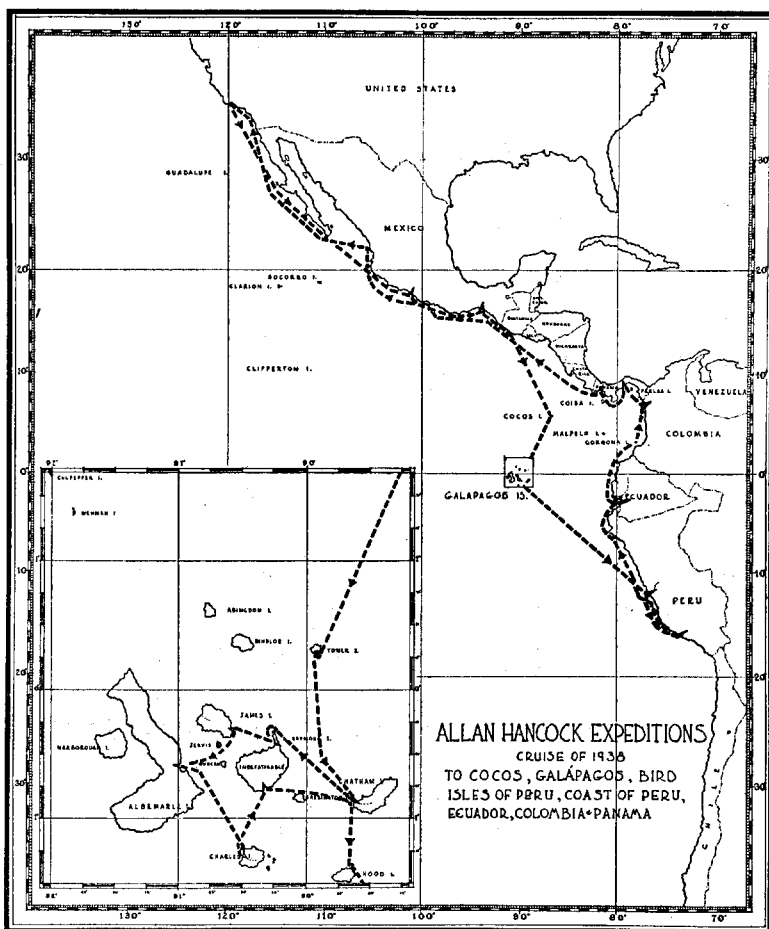


EXPEDITION CHART 5

February 14, 1936, to March 26, 1936
Stations 488-36 to 609-36, pp. 297-304

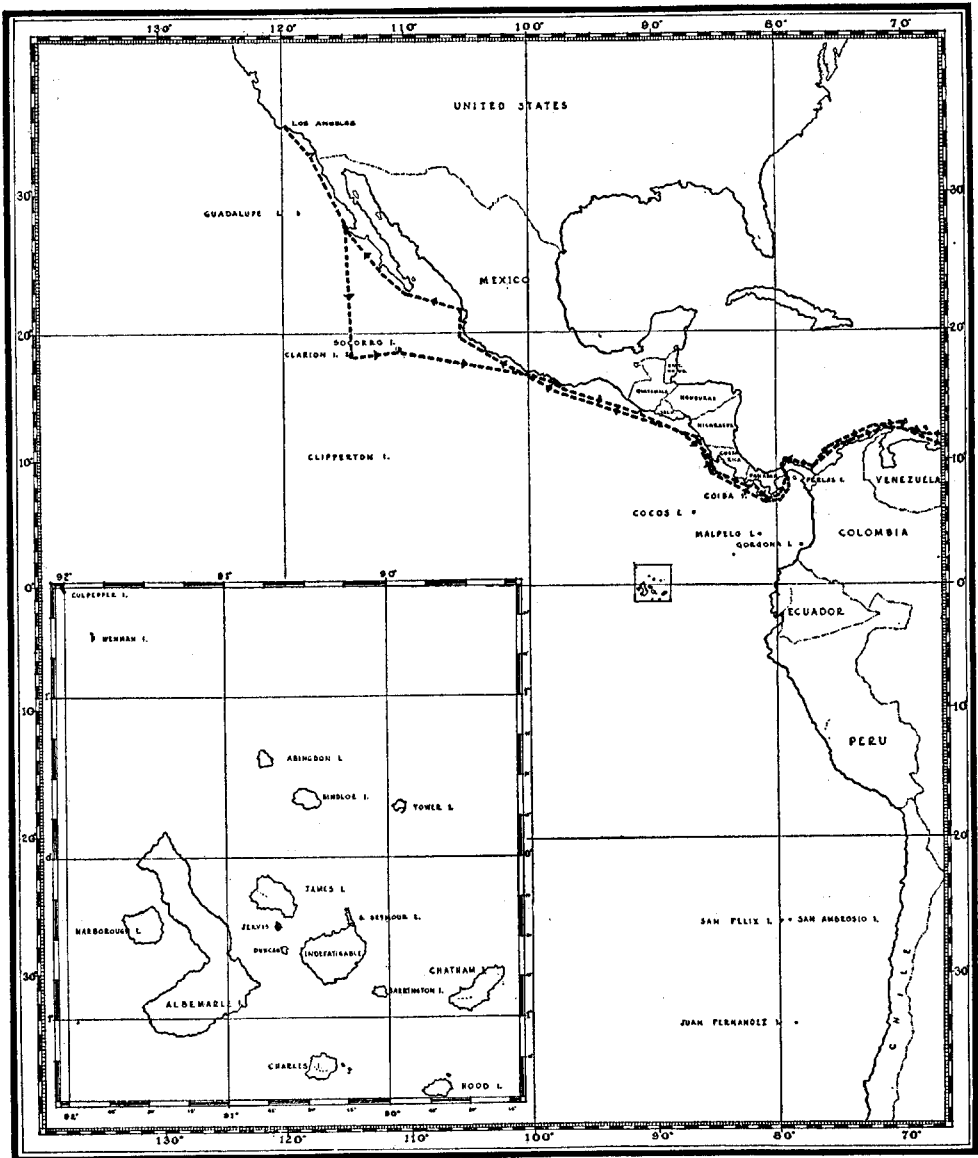


EXPEDITION CHART 6
February 26, 1937, to April 8, 1937
Stations 610-37 to 752-37, pp. 304-311



EXPEDITION CHART 7

January 3, 1938, to March 13, 1938
 Stations 760-38 to 871-38, pp. 312-318



EXPEDITION CHART 8

Allan Hancock Expeditions of 1939 to west coast of Mexico, Guatemala, Costa Rica, and Panama, March 12 to April 1, 1939, in the Pacific Ocean, stations 915-39 to 956-39. Allan Hancock Atlantic Expedition, in the Atlantic Ocean, from Cristobal, Canal Zone, to Port of Spain, Trinidad, April 3 to April 26, 1939, stations A1-A59. In the Pacific Ocean, May 2 to May 9, 1939, dredging in the vicinity of Taboga Island, Panama, White Friars, Tenacatita Bay, Magdalena Island, and Tres Marias Islands, Mexico, stations 957-39 to 974-39. (Pp. 320-323.)

ALLAN HANCOCK PACIFIC EXPEDITION OF 1931-1932

Station	Date	Locality	Bearings	
Mexico				
1	Dec. 1931	Mazatlan, Mexico	106 26	N 23 11 W
2	7-8	Tenacatita Bay, Mexico	19 16 50	N 104 50 25 W
3	9-10	Sihuatanejo Bay, Mexico	17 37	N 101 33 W
4	11-12	Acapulco, Mexico	16 51	N 99 56 W
4	14-15			
Panama				
5	21-22	Bahia Honda, Panama	7 44 35	N 81 31 40 W
6	23-27	Balboa, Canal Zone	8 57	N 79 34 W
Galapagos Islands				
7	31	Stephens Bay, Chatham Island	0 47 40	S 89 30 W
Jan. 1932				
8	1-3	Black Beach, Charles Island	1 16 46	S 90 29 56 W
9	4-9	Tagus Cove, Albemarle Island	0 16 13	S 91 22 41 W
10	9-12	James Bay, James Island	0 12 02	S 90 52 08 W
11	12-14	Conway Bay, Indefatigable Island	0 32	S 90 33 10 W
12	14-18	West of South Seymour Island	0 24 20	S 90 20 W
13	19-24	Darwin Bay, Tower Island	0 19 15	N 89 56 42 W
Panama				
14	27-31	Balboa, Canal Zone	8 57	N 79 34 W
Costa Rica				
Feb. 1932				
15	2-4	Chatham Bay, Cocos Island	5 33 20	N 87 59 10 W

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			
	Feb. 1932		Nicaragua			
16	6-9	Corinto, Nicaragua	12 27	N	87 11	W
			Mexico			
17	12-13	Acapulco, Mexico	16 51	N	99 56	W
18	15	Tenacatita Bay, Mexico	19 16 50	N	104 50 25	W
19	16	Isabel Island, Mexico	21 52 20	N	105 51 30	W
20	17-20	Espiritu Santo Island, Gulf of California	24 25 15	N	110 21 10	W
21	23	Asunción Island, West Coast, Lower California	27 06	N	114 16 40	W
22	24	Turtle Bay, West Coast, Lower California	27 39 40	N	114 52 15	W
23	25	Cedros Island, West Coast, Lower California	28 21 10	N	115 11 10	W

ALLAN HANCOCK PACIFIC EXPEDITION OF 1933

Station	Date	Locality	Bearings	Remarks
Dec. 1932				
1-33	31	Mexico 46 miles off San Juanico Point, Lower California	25 58 25 N 113 08 40 W	Deck specimens in storm.
Jan. 1933				
2-33	3	Tenacatita Bay, Mexico	19 17 55 N 104 49 30 W	Shore and land collecting.
3-33	4	Peratlan Bay, Mexico	17 32 N 101 28 W	Shore and land collecting.
4-33	6	Tangola Tangola Bay, Mexico	15 45 N 96 06 W	Shore and land collecting.
Panama				
5-33	10	Bahia Honda, Panama	7 44 35 N 80 31 40 W	Shore and land collecting.
6-33	13	Balboa, Canal Zone	8 57 N 79 34 W	Shore and land collecting.
Colombia				
7-33	16	Malpelo Island, Bay of Panama	3 59 N 81 34 W	Shore collecting. Rock.
Ecuador				
8-33	17	Off La Libertad, Ecuador	2 12 05 S 80 55 12 W	At anchorage. Electric Light.
9-33	18	Off La Libertad, Ecuador	2 12 30 S 80 55 05 W	3-5 fathoms. Sand.
10-33	18	South of Santa Elena Point, Ecuador	2 12 S 81 00 25 W	Shore. Rock.
11-33	18	Off La Libertad, Ecuador	2 12 05 S 80 55 12 W	At anchorage. Electric Light.
12-33	19	Off beach at La Libertad, Ecuador	2 12 15 S 80 53 40 W	4 fathoms. Sand.
13-33	19	Off La Libertad, Ecuador	2 12 05 S 80 55 12 W	At anchorage. Electric Light.
14-33	20	Off La Playa, Santa Elena Bay, Ecuador	2 12 30 S 80 56 35 W	2-7 fathoms. Sand with rock patches.
15-33	20	Off La Libertad, Ecuador	2 07 30 S 80 56 30 W	10 fathoms. Sand, shell.
16-33	20	South of La Libertad, Ecuador	2 13 17 S 80 55 24 W	Shore. Rock.
17-33	20	Off La Libertad, Ecuador	2 12 05 S 80 55 12 W	At anchorage. Electric Light.
18-33	21	La Libertad, Ecuador	2 11 14 S 80 58 45 W	2 fathoms. Diving near cable station.
19-33	21	Point Brava, Santa Elena Bay, Ecuador	2 12 23 S 81 00 05 W	Shore. Rock.

Station	Date	Locality	Bearings			Remarks
Jan. 1933						
20-33	21	Off La Libertad, Ecuador	Galapagos Islands			At anchorage. Electric Light.
21-33	22	Salango Island, Ecuador	2 12 05 S	80 55 12 W	Shore and land collecting.	
22-33	22	La Plata Island, Ecuador	1 35 05 S	80 52 09 W	Shore and land collecting.	
			1 16 S	81 05 10 W		
23-33	22	Off La Plata Island, Ecuador	1 15 25 S	81 05 15 W	10 fathoms. Rock, nullipores.	
24-33	24	Gardner Bay, Hood Island	1 22 52 S	89 39 15 W	Shore, Osborn Island. Rock.	
25-33	24	Gardner Bay, Hood Island	1 23 05 S	89 39 40 W	2 fathoms. Sand.	
26-33	24	Gardner Bay, Hood Island	1 22 15 S	89 39 40 W	Anchorage. Electric Light.	
27-33	25	Gardner Bay, Hood Island	1 23 10 S	89 39 55 W	Shore. Rock.	
28-33	25	Gardner Bay, Hood Island	1 22 40 S	89 40 10 W	2 fathoms. Diving.	
29-33	25	Gardner Bay, Hood Island	1 22 15 S	89 39 40 W	Anchorage. Electric Light.	
30-33	26	Gardner Bay, Hood Island	1 22 52 S	89 39 15 W	Shore. Rock.	
31-33	26	Gardner Bay, Hood Island	1 22 52 S	89 39 15 W	4 fathoms. Diving.	
32-33	26	Black Beach Anchorage, Charles Island	1 16 46 S	90 29 56 W	Anchorage. Electric Light.	
33-33	27	Black Beach, Charles Island	1 16 36 S	90 29 42 W	Shore. Rock.	
34-33	27	Post Office Bay, Charles Island	1 14 58 S	90 27 49 W	Anchorage. Electric Light.	
35-33	28	Ritter's, Charles Island	1 18 S	90 28 35 W	Land Collecting.	
36-33	28	Baroness Wagner's, Charles Island	1 20 25 S	90 24 25 W	In seepage from cliff.	
37-33	28	Post Office Bay, Charles Island	1 14 58 S	90 27 49 W	Anchorage. Electric Light.	
38-33	29	Southeast of Cormorant Point, Charles Island	1 14 59 S	90 25 50 W	Shore. Rock.	
39-33	29	Flamingo Lagoon, near Cormorant Bay, Charles Island	1 14 58 S	90 26 09 W	Shore of lagoon.	
40-33	29	Post Office Bay, Charles Island	1 14 58 S	90 27 49 W	Anchorage. Electric Light.	
41-33	30	East of Wreck Bay, Chatham Island	0 50 40 S	89 32 55 W	4 fathoms. Rock.	
42-33	31	Stephens Bay, Chatham Island	0 49 40 S	89 31 10 W	Shore opposite Kicker Rock. Rock.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
	Jan. 1933					
43-33	31	Stephens Bay, Chatham Island	0 48 30 S	89 30 20 W		12 fathoms. Rock, Sand.
	Feb. 1933					
44-33	1	Freshwater Bay, Chatham Island	0 55 55 S	89 29 30 W		Upstream $\frac{1}{2}$ mile.
45-33	1	Off Barrington Island	0 50 S	90 W		Townet astern.
46-33	2	Barrington Island	0 51 35 S	90 02 W		4-10 fathoms. Rock.
47-33	2	Barrington Island	0 51 35 S	90 02 W		2 fathoms. Diving.
48-33	2	Barrington Island	0 51 35 S	90 02 W		Shore. Rock.
49-33	3	Academy Bay, Indefatigable Island	0 45 13 S	90 20 28 W		Shore. Rock.
50-33	3	Academy Bay, Indefatigable Island	0 45 55 S	90 20 45 W		Anchorage. Electric Light.
51-33	4	Academy Bay, Indefatigable Island	0 45 35 S	90 20 10 W		4-10 fathoms. Sand.
52-33	4	Academy Bay, Indefatigable Island	0 45 14 S	90 20 11 W		Shore. Rock.
53-33	4	Academy Bay, Indefatigable Island	0 45 55 S	90 20 45 W		Anchorage. Electric Light.
54-33	5	South of Indefatigable Island	0 59 S	90 20 20 W		110 fathoms. Rock.
55-33	5	Northeast of Charles Island	1 03 30 S	90 17 30 W		60 fathoms. Rock.
56-33	5	Flamingo Bay, off Cormorant Bay, Charles Island	1 14 53 S	90 26 18 W		Shore. Rock.
57-33	6	Post Office Bay, Charles Island	1 15 25 S	90 25 48 W		4 fathoms. Sand, rock.
58-33	6	Cormorant Bay, Charles Island	1 14 47 S	90 26 26 W		Shore. Rock.
59-33	6	Off Cormorant Bay, Charles Island	1 14 31 S	90 26 30 W		13 fathoms. Rock.
60-33	6	Post Office Bay, Charles Island	1 14 58 S	90 27 49 W		Anchorage. Electric Light.
61-33	7	Tagus Cove, Albemarle Island	0 16 13 S	91 22 41 W		Anchorage. Electric Light.
62-33	8	Black Bight, Albemarle Island	0 12 55 S	91 22 30 W		Shore. Rock.
63-33	8	Black Bight, Albemarle Island	0 12 55 S	91 24 45 W		12 fathoms. Rock.
64-33	8	Tagus Cove, Albemarle Island	0 16 13 S	91 22 41 W		Anchorage. Electric Light.

Station	Date	Locality	Bearings			Remarks
	Feb. 1933					
65-33	9	Reef, north of Tagus Hill, Albemarle Island	0 15 40 S	91 24	W	Reef. Rock.
66-33	9	Tagus Cove, Albemarle Island	0 16 17 S	91 22 41	W	10-20 fathoms. Sand, nullipores.
66a-33	9	Tagus Cove, Albemarle Island	0 16 17 S	91 22 41	W	2-3 fathoms. Baited roach trap attached to lobster pot. <i>Parapinnixa</i> .
67-33	9	Tagus Cove, Albemarle Island	0 16 13 S	91 22 41	W	Anchorage. Electric Light.
68-33	10	South of Cape Berkeley, Albemarle Island	0 03 15 S	91 35 35	W	Shore. Rock.
69-33	11	Albemarle Point, Albemarle Island	0 09 N	91 23	W	Shore. Rock, tide pools.
69a-33	11	Albemarle Point, Albemarle Island	0 09 N	91 23	W	Shallow water. Mud sample.
70-33	12	James Bay, James Island	0 12 02 S	90 52 08	W	Anchorage. Electric Light.
71-33	12	James Bay, James Island	0 11 56 S	90 51 20	W	Shore. Rock, sand.
72-33	12	Cartago Bay, Albemarle Island	0 35 58 S	90 55 24	W	Anchorage. Electric Light.
73-33	13	Cartago Bay, Albemarle Island	0 34 10 S	90 57 55	W	North Shore. Rock, sand, mangroves.
74-33	14	Cartago Bay, Albemarle Island	0 34 38 S	90 57 45	W	3-6 fathoms. Sand with rock patches.
75-33	13	Cartago Bay, Albemarle Island	0 35 58 S	90 55 24	W	Anchorage. Electric Light.
76-33	14	Cartago Bay, Albemarle Island	0 34 10 S	90 57 55	W	North Shore. Sand.
77-33	14	Cartago Bay, Albemarle Island	0 35 58 S	90 55 24	W	Anchorage. Electric Light.
78-33	15	Conway Bay, Indefatigable Island	0 32 S	90 33 10	W	Anchorage. Electric Light.
79-33	15	Duncan Island	0 25 20 S	90 43 50	W	Inland collecting.
80-33	15	Duncan Island	0 25 20 S	90 43 50	W	Shallow water. Coral.
81-33	16	Conway Bay, Indefatigable Island	0 32 40 S	90 33	W	6 fathoms. Sand.
82-33	17	Conway Bay, Indefatigable Island	0 31 25 S	90 32 15	W	Shore of small island. Rock.
82a-33	17	Conway Bay, Indefatigable Island	0 35 20 S	90 33 30	W	Shore opposite Eden Island. Mud flats. Fiddlers.
83-33	17	Off South Seymour Island	0 24 20 S	90 20	W	Anchorage. Electric Light.
84-33	18	Off South Seymour Island	0 25 25 S	90 20 50	W	13 fathoms. Sand.

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Feb. 1933						
85-33	18	North Seymour Island	0 23 15 S	90 18 25 W	Shore. Rock.	
85a-33	18	North Seymour Island	0 23 15 S	90 19 25 W	Shore. Rock.	
86-33	18	Off South Seymour Island	0 24 20 S	90 20 W	Anchorage. Electric Light.	
87-33	19	Off South Seymour Island	0 23 20 S	90 19 40 W	15 fathoms. Sand, shell.	
88-33	19	South Seymour Island	0 24 45 S	90 19 15 W	West Shore. Rock, sand.	
88a-33	19	South Seymour Island	0 24 45 S	90 19 15 W	Freshwater pools.	
89-33	19	Off South Seymour Island	0 24 20 S	90 20 W	Anchorage. Electric Light.	
90-33	20	Abingdon Island	0 33 30 N	90 47 W	Shore. Rock.	
91-33	20	Darwin Bay, Tower Island	0 19 15 N	89 56 42 W	Anchorage. Electric Light.	
92-33	21	Darwin Bay, Tower Island	0 19 15 N	89 56 42 W	Anchorage. Electric Light.	
93-33	22	Darwin Bay, Tower Island	0 19 28 N	89 56 45 W	Shore. Lagoon Beach.	
94-33	22	Darwin Bay, Tower Island	0 19 18 N	89 57 14 W	Shallow water. Coral.	
95-33	23	Darwin Bay, Tower Island	0 20 45 N	89 57 02 W	Shore of lake in crater.	
95a-33	23	Darwin Bay, Tower Island	0 19 28 N	89 56 57 W	Offshore. Fish traps.	
96-33	24	Darwin Bay, Tower Island	0 19 18 N	89 57 14 W	Shallow water. Rock.	
97-33	24	Darwin Bay, Tower Island	0 19 18 N	89 57 14 W	Shallow water. Coral.	
98-33	25	Darwin Bay, Tower Island	0 19 18 N	89 57 14 W	Shore. Rock.	
99-33	25	Darwin Bay, Tower Island	0 19 24 N	89 56 50 W	3-4 fathoms. Tangles.	
100-33	25	Darwin Bay, Tower Island	0 19 15 N	89 56 42 W	Anchorage. Electric Light.	
101-33	26	Darwin Bay, Tower Island	0 19 18 N	89 57 14 W	Shore. Rock.	
101a-33	26	Darwin Bay, Tower Island	0 19 18 N	89 57 14 W	Shallow water. Coral.	
102-33	26	Darwin Bay, Tower Island	0 19 15 N	89 56 42 W	Anchorage. Electric Light.	

Station	Date	Locality	Bearings		Remarks
Feb. 1933					
103-33	28	Chatham Bay, Cocos Island	Costa Rica	5 32 56 N 86 59 28 W	Freshwater stream.
104-33	28	Chatham Bay, Cocos Island		5 33 20 N 87 59 10 W	Anchorage. Electric Light.
Mar. 1933					
105-33	1	Wafer Bay, Cocos Island		5 32 45 N 87 00 10 W	Shore. Rock.
106-33	1	Chatham Bay, Cocos Island		5 33 20 N 87 59 10 W	Anchorage. Electric Light.
107-33	2	Wafer Bay, Cocos Island		5 32 45 N 87 00 10 W	Shore. Rock.
108-33	2	Wafer Bay, Cocos Island		5 32 45 N 87 00 25 W	2-4 fathoms. Sand.
109-33	3	Chatham Bay, Cocos Island		5 32 56 N 86 59 18 W	Freshwater stream.
Panama					
110-33	6	Barro Colorado Island, Canal Zone		9 13 35 N 79 53 45 W	Biological Station. Land, freshwater stream.
111-33	9	Bahia Honda, Panama		7 45 15 N 81 33 10 W	Shore. Rock.
112-33	9	Bahia Honda, Panama		7 45 15 N 81 33 10 W	Freshwater pool.
113-33	9	Bahia Honda, Panama		7 45 18 N 81 32 51 W	5-8 fathoms. Sand.
114-33	10	Bahia Honda, Panama		7 43 46 N 81 31 54 W	Shallow water. Coral.
Costa Rica					
115-33	12	Port Culebra, Costa Rica		10 25 20 N 85 40 20 W	Shore. Along slough.
116-33	13	Cocos Bay, south of Port Culebra, Costa Rica		10 33 35 N 85 42 30 W	2 fathoms. Sand, shell.
117-33	13	Port Culebra, Costa Rica		10 35 20 N 85 40 20 W	Seining at mouth of slough.
Mexico					
118-33	16	Tangola Tangola Bay, Mexico		15 45 50 N 96 06 15 W	Shore. Rock, sand.
119-33	16	Tangola Tangola Bay, Mexico		15 46 10 N 96 06 15 W	Fresh water.
120-33	17	Petatlan Bay, Mexico		17 31 30 N 101 27 15 W	Shore. Rock.

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Mar. 1933						
121-33	17	Tenacatita Bay, Mexico	19 16 50 N	104 48 27 W	Shore, head of the bay. Rock, sand.	
122-33	18	Tenacatita Bay, Mexico	19 17 17 N	104 48 40 W	4-10 fathoms. Sand, mud.	
123-33	18	Tenacatita Bay, Mexico	19 16 50 N	104 48 27 W	Land collecting in from shore.	
124-33	19	Isabel Island, Mexico	21 51 30 N	105 53 35 W	Shore. Rock.	
125-33	19	Isabel Island, Mexico	21 51 30 N	105 53 35 W	Shallow water. Porites coral.	
126-33	21	Santa Maria Bay, Lower California	24 45 N	112 13 30 W	5-25 fathoms. Gray sand.	
127-33	21	Santa Maria Bay, Lower California	24 47 10 N	112 16 15 W	Shore, at mouth of Lagoon.	
ALLAN HANCOCK PACIFIC EXPEDITION OF 1934						
Jan. 1934						
Mexico						
128-34	2	Braithwaite Bay, Socorro Island	18 42 45 N	110 56 50 W	Shore. Rock with large stones and boulders.	
129-34	3	Braithwaite Bay, Socorro Island	18 42 30 N	110 56 13 W	14-18 fathoms. Sand, nullipores.	
130-34	3	Braithwaite Bay, Socorro Island	18 42 45 N	110 56 50 W	Shore. Rock, large shingle, tide pools.	
131-34	3	Braithwaite Bay, Socorro Island	18 42 45 N	110 56 50 W	Shallow water. <i>Pocillopora</i> coral.	
132-34	4	Braithwaite Bay, Socorro Island	18 41 15 N	110 56 15 W	40 fathoms. Rock, sand, nullipores.	
133-34	4	Braithwaite Bay, Socorro Island	18 42 N	110 50 35 W	20 fathoms. Sand.	
134-34	5	Sulphur Bay, Clarion Island	18 20 35 N	114 44 20 W	14 fathoms. Rock, nullipores.	
135-34	5	Sulphur Bay, Clarion Island	18 20 20 N	114 44 25 W	25 fathoms. Sand.	
136-34	5	Sulphur Bay, Clarion Island	18 20 05 N	114 44 40 W	32 fathoms. Nullipores.	
137-34	5	Sulphur Bay, Clarion Island	18 19 05 N	114 45 25 W	57 fathoms. Nullipores.	
138-34	5	Sulphur Bay, Clarion Island	18 19 45 N	114 44 35 W	30-50 fathoms. Nullipores. Tangles.	
139-34	5	Sulphur Bay, Clarion Island	18 20 50 N	114 44 10 W	Shore. Rock, sand, dry lagoon.	
140-34	5	Sulphur Bay, Clarion Island	18 20 50 N	114 44 10 W	Shallow water. Coral.	
141-34	5	Sulphur Bay, Clarion Island	18 20 50 N	114 44 10 W	Shore. Shingle.	
142-34	6	Off Clipperton Island (To France)	10 40 N	109 25 W	65 fathoms. Rough rock.	

Station	Date	Locality	Bearings			Remarks
Jan. 1934						
143-34	11	Off Wenman Island	Galapagos Islands 1 23 10 N 91 48 45 W			100-150 fathoms. Coral, nullipores, worm tubes.
144-34	11	Wenman Island	1 22 40 N 91 49 W			Shore. Rock.
145-34	12	Albemarle Point, Albemarle Island	0 08 45 N 91 21 30 W			6-7 fathoms. Sand with rock patches.
146-34	12	Albemarle Point, Albemarle Island	0 09 N 91 23 W			Shore. Rock, tide pools.
147-34	13	Tagus Cove, Albemarle Island	0 16 38 S 91 22 44 W			30 fathoms. Rock, coral, nullipores.
148-34	13	Tagus Cove, Albemarle Island	0 16 41 S 91 22 39 W			12-25 fathoms. Rock, nullipores.
149-34	13	Tagus Cove, Albemarle Island	0 16 44 S 91 22 38 W			20 fathoms. Rock, nullipores.
150-34	13	Tagus Cove, Albemarle Island	0 16 06 S 91 22 31 W			Shore. Rock.
151-34	13	Tagus Cove, Albemarle Island	0 16 13 S 91 22 41 W			Anchorage. Electric Light.
152-34	14	Tagus Cove, Albemarle Island	0 16 08 S 91 22 44 W			Shallow water. Coral.
153-34	14	Northeast point of Narborough Island	0 17 S 91 25 40 W			Shore. Lava rock, tide pools, mangroves.
154-34	15	Reef north of Tagus Hill, Albemarle Island	0 15 40 S 91 24 W			Reef. Rock.
155-34	15	Off Tagus Cove, Albemarle Island	0 16 45 S 91 22 52 W			50-60 fathoms. Rock, nullipores, bryozoa.
156-34	15	Off Tagus Cove, Albemarle Island	0 16 50 S 91 23 04 W			80-100 fathoms. Rock.
157-34	15	Tagus Cove, Albemarle Island	0 16 08 S 91 22 38 W			10-18 fathoms. Sand, shell.
158-34	15	Tagus Cove, Albemarle Island	0 16 13 S 91 22 41 W			Anchorage. Electric Light.
159-34	16	North of Christopher Point, Albemarle Island	0 52 45 S 91 31 W			Shore. Rock.
160-34	16	Off Black Beach, Charles Island	1 16 46 S 90 29 56 W			Anchorage. Electric Light.
161-34	17	Off Black Beach, Charles Island	1 16 40 S 90 29 46 W			3 fathoms. Rock, algae.
162-34	18	Black Beach, Charles Island	1 16 36 S 90 29 42 W			Shore. Rock.
163-34	18	Black Beach, Charles Island	1 16 36 S 90 29 42 W			Shore. Rock.
164-34	18	Ritter's Spring, Charles Island	1 18 S 90 28 35 W			Freshwater.

Station	Date	Locality	Bearings			Remarks
	Jan. 1934					
165-34	18	Baroness Wagner's, Charles Island	1 20 25 S	90 24 25 W	Inland.	
166-34	19	Black Beach, Charles Island	1 17 38 S	90 29 55 W	Shore. Rock.	
167-34	19	Post Office Bay, Charles Island	1 14 37 S	90 28 08 W	15 fathoms. Rock.	
168-34	20	Academy Bay, Indefatigable Island	0 45 14 S	90 20 11 W	Shore. Rock.	
169-34	20	Academy Bay, Indefatigable Island	0 46 18 S	90 19 27 W	15-25 fathoms. Sand, rock, algae.	
170-34	21	Stephens Bay, Chatham Island	0 47 30 S	89 31 W	32 fathoms. Fine sand, corallines.	
171-34	21	Off Stephens Bay, Chatham Island	0 46 10 S	89 30 10 W	35-40 fathoms. Fine sand, corallines.	
172-34	21	Stephens Bay, Chatham Island	0 47 40 S	89 29 40 W	12 fathoms. Rock, boulders, gorgonids.	
173-34	22	Off South Seymour Island	0 25 10 S	90 19 25 W	5 fathoms. Sand with rock patches.	
174-34	22	South Seymour Island	0 24 20 S	90 20 W	West shore. Rock, sand, land collecting.	
175-34	22	North Seymour Island	0 23 15 S	90 19 25 W	Shore. Rock.	
175a-34	22	South Seymour Island	0 24 20 S	90 20 W	Shore. Sand, <i>Ocyropsode</i> .	
176-34	22	Off South Seymour Island	0 24 20 S	90 20 W	Anchorage. Electric Light.	
177-34	23	Sullivan Bay, James Island	0 16 30 S	90 35 15 W	5-20 fathoms. Rock with sand patches.	
178-34	23	Sullivan Bay, James Island	0 16 S	90 35 W	40 fathoms. Rough rock.	
179-34	23	Bartholomew Island, near James Island	0 17 S	90 34 45 W	Shore. Lava rock.	
180-34	23	Sullivan Bay, James Island	0 17 02 S	90 35 12 W	Shallow water. Coral.	
181-34	24	Off James Bay, James Island	0 11 02 S	90 52 12 W	20 fathoms. Rock.	
182-34	24	Off James Bay, James Island	0 10 56 S	90 52 14 W	30 fathoms. Coarse sand.	
183-34	24	Between Albany and James Islands	0 10 45 S	90 52 08 W	50-70 fathoms. Rock, shell.	
184-34	24	James Bay, James Island	0 12 35 S	90 51 40 W	Shore. Rock and lagoon.	
185-34	25	Off Cartago Bay, Albemarle Island	0 34 57 S	90 53 44 W	32 fathoms. Mud.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Jan. 1934						
186-34	25	Off Cartago Bay, Albemarle Island	0 34 12 S	90 52 31 W	32 fathoms. Coarse sand, nullipores.	
187-34	25	Cartago Bay, Albemarle Island	0 36 18 S	90 57 11 W	8-10 fathoms. Sand with rock patches.	
188-34	25	Cartago Bay, Albemarle Island	0 34 10 S	90 57 55 W	North shore. Rock, sand.	
189-34	25	Cartago Bay, Albemarle Island	0 37 37 S	90 51 23 W	Shallow water. Coral.	
190-34	26	East of south end of Albemarle Island	0 55 S	90 30 W	58-60 fathoms. Sand, nullipores.	
191-34	26	East of south end of Albemarle Island	0 55 S	90 30 W	70 fathoms. Sand.	
192-34	27	East of south end of Albemarle Island	1 04 S	90 39 W	120 fathoms. Rough rock.	
193-34	27	Post Office Bay, Charles Island	1 14 47 S	90 27 32 W	8-10 fathoms. Sand, rock, algae.	
194-34	27	Onslow Island, north of Charles Island	1 14 20 S	90 26 07 W	Crater. Coral.	
195-34	29	North of Charles Island	0 59 S	90 25 W	70-80 fathoms. Rock, sand.	
196-34	29	Post Office Bay, Charles Island	1 14 56 S	90 28 11 W	8-10 fathoms. Rough rock.	
197-34	29	Off Post Office Bay, Charles Island	1 11 15 S	90 31 10 W	35-40 fathoms. Rock.	
198-34	29	Northwest of Post Office Bay, Charles Island	1 09 40 S	90 33 W	55-65 fathoms. Sand.	
199-34	30	Black Beach, Charles Island	1 17 38 S	90 29 55 W	Shore. Rock.	
200-34	30	Off Black Beach, Charles Island	1 16 56 S	90 30 15 W	25-40 fathoms. Rock.	
201-34	31	Off Gardner Bay, Hood Island	1 21 55 S	90 40 05 W	25-35 fathoms. Rock.	
202-34	31	Osborn Island, Gardner Bay, Hood Island	1 22 52 S	89 39 15 W	Shore. Rock.	
203-34	31	Gardner Bay, Hood Island	1 21 20 S	89 40 40 W	20 fathoms. Rock.	
204-34	31	Gardner Bay, Hood Island	1 20 40 S	89 39 15 W	30 fathoms. Sand.	
Feb. 1934						
Ecuador						
205-34	8	Santa Elena Bay, off La Libertad, Ecuador	2 10 36 S	80 55 50 W	8-12 fathoms. Sand, shell.	
206-34	8	Santa Elena Bay, off La Libertad, Ecuador	2 10 36 S	80 55 50 W	Floating Sargassum.	
207-34	8	South of Point Santa Elena, Ecuador	2 12 23 S	81 00 05 W	Shore. Rock.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
	Feb. 1934					
208-34	9	Santa Elena Bay, Ecuador	2 09 45 S	80 56 35 W		7-8 fathoms. Sand, small shells.
209-34	9	Off Santa Elena Bay, Ecuador	2 08 20 S	81 00 15 W		8-10 fathoms. Rock, large shells, gorgonids.
210-34	9	Near south shore, Santa Elena Bay, Ecuador	2 11 25 S	80 58 W		5-7 fathoms. Rock, shells, gorgonids.
211-34	10	La Plata Island, Ecuador	1 16 S	81 05 10 W		Shore. Rock.
212-34	10	Off La Plata Island, Ecuador	1 15 S	81 04 15 W		45-55 fathoms. Rock, mud.
213-34	10	Off La Plata Island, Ecuador	1 15 25 S	81 05 15 W		7-10 fathoms. Rock, nullipores.
214-34	11	Off Cape San Francisco, Ecuador	0 39 30 N	80 06 30 W		2 fathoms. Mud, rock.
215-34	11	San Francisco Bay, Ecuador	0 38 40 N	80 05 40 W		2 fathoms. Mud, debris.
216-34	11	San Francisco Bay, Ecuador	0 35 50 N	80 07 W		20 fathoms. Muck.
217-34	11	Off Cape San Francisco, Ecuador	0 40 N	80 08 50 W		2 fathoms. Rock, reef.
Colombia						
218-34	12	Off Gorgona Island, Colombia	3 00 30 N	78 11 45 W		Shore. Rock.
219-34	12	Off Gorgona Island, Colombia	3 01 N	78 10 55 W		45 fathoms. Mud.
220-34	12	Off Gorgona Island, Colombia	3 01 25 N	78 09 W		150 fathoms. Mud, gravel.
221-34	12	Off Gorgona Island, Colombia	3 01 25 N	78 10 W		20 fathoms. Rock, shell.
222-34	12	Gorgona Island, Colombia	2 59 30 N	78 11 40 W		Shallow water. Coral.
223-34	12	Off Gorgona Island, Colombia	3 00 50 N	78 13 40 W		35 fathoms. Sand with small shells.
224-34	12	Off Gorgona Island, Colombia	2 59 45 N	78 13 20 W		10 fathoms. Gravel, shell.
225-34	12	Off Gorgona Island, Colombia	2 58 55 N	78 13 45 W		8-10 fathoms. Large dead shells.
226-34	12	Off Gorgona Island, Colombia	2 57 50 N	78 14 W		20 fathoms. Gravel, nullipores.
227-34	12	Off Gorgona Island, Colombia	2 57 N	78 14 10 W		5-6 fathoms. Coral.
228-34	12	Between Gorgona and Gorgonilla Islands, Colombia	2 56 20 N	78 14 W		Mud, sand.

Station	Date	Locality	Bearings			Remarks
Feb. 1934						
229-34	13	Cabita Bay (Cape Corrientes), Colombia	5 29 20 N	77 29 35 W	Shore near stream. Sand.	
230-34	13	Cabita Bay (Cape Corrientes)	5 28 20 N	77 30 55 W	10-15 fathoms. Mud.	
231-34	13	Off Cape Corrientes, Colombia	5 28 N	77 31 W	10 fathoms. Mud.	
232-34	14	Port Utria, Colombia	5 59 10 N	77 20 20 W	Shore. Rock.	
233-34	14	Port Utria, Colombia	5 58 50 N	77 21 W	20 fathoms. Mud.	
234-34	14	Port Utria, Colombia	5 58 39 N	77 21 40 W	20 fathoms. Sand, shell.	
235-34	14	Off Port Utria, Colombia	5 58 30 N	77 21 25 W	15-20 fathoms. Sand, shell, urchins.	
236-34	15	Off Port Utria, Colombia	6 00 15 N	77 23 10 W	40 fathoms. Shell, dead leaves.	
237-34	15	Off Port Utria, Colombia	5 59 30 N	77 21 45 W	15 fathoms. Rock.	
238-34	15	Off Port Utria, Colombia	5 59 25 N	77 21 50 W	20 fathoms. Sand, shell, cake urchins.	
239-34	15	Port Utria, Colombia	5 59 40 N	77 21 30 W	Shore. Reef inside outer island.	
Panama						
240-34	20	Off Jicarita Island, Panama	7 12 30 N	81 47 05 W	24 fathoms. Shell.	
241-34	20	Off Jicarita Island, Panama	7 13 05 N	81 48 30 W	15 fathoms. Rough rock.	
242-34	20	Off Jicarita Island, Panama	7 13 15 N	81 49 W	30 fathoms. Sand, shell.	
243-34	20	Jicarita Island, Panama	7 12 50 N	81 48 05 W	Shore. Rock.	
244-34	21	South of Medidor Island, off Bahia Honda Panama	7 44 19 N	81 35 23 W	30-35 fathoms. Coarse sand, shell, mud.	
245-34	21	Off Pacora Island, off Bahia Honda, Panama	7 44 19 N	81 35 23 W	15-25 fathoms. Rock, shell, nullipores.	
246-34	21	Bahia Honda, Panama	7 43 15 N	81 32 40 W	Rocky reef.	
247-34	21	Bahia Honda, Panama	7 43 32 N	81 32 19 W	Shallow water. Coral.	
248-34	22	Off south point of bay, Bahia Honda, Panama	7 43 N	81 33 07 W	25-30 fathoms. Mud, shell.	
249-34	22	Bahia Honda, Panama	7 43 16 N	81 32 55 W	15-20 fathoms. Rock.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>	<i>Remarks</i>
Feb. 1934				
250-34	22	Secas Islands, Panama	7 57 55 N 82 00 30 W	25 fathoms. Mud, shell.
251-34	22	Secas Islands, Panama	7 57 50 N 82 01 15 W	15 fathoms. Rock, nullipores.
252-34	22	Secas Islands, Panama	7 57 10 N 82 00 45 W	Shallow water. Coral.
Costa Rica				
253-34	24	Port Culebra, Costa Rica	10 37 15 N 85 40 W	10 fathoms. Mud, shell.
254-34	24	Port Culebra, Costa Rica	10 37 50 N 85 39 15 W	3-10 fathoms. Sand, shell.
255-34	24	Buena Point, Port Culebra, Costa Rica	10 35 25 N 85 41 45 W	Shore. Rock.
256-34	24	South of Mala Point, Port Culebra, Costa Rica	10 36 30 N 85 42 15 W	Shore. Rock.
257-34	25	Off South Viradores Islands, Port Culebra, Costa Rica	10 35 N 85 43 15 W	10 fathoms. Sand, shells.
258-34	25	Near South Viradores Islands, Port Culebra, Costa Rica	10 34 30 N 85 42 50 W	Shallow water. Coral.
Mexico				
259-34	28	Tangola Tangola Bay and Santa Cruz Bay, Mexico	15 45 N 96 06 12 W	15-20 fathoms. Sand, gravel, mud.
Mar. 1934				
260-34	1	Tangola Tangola Bay, Mexico	15 45 37 N 96 05 24 W	Shore on small island in bay. Rock.
261-34	1	Tangola Tangola Bay, Mexico	15 45 37 N 96 05 24 W	Shallow water. Coral.
262-34	2	5 miles off White Friars, Mexico	17 28 15 N 101 33 W	100-140 fathoms. Mud.
263-34	2	Off White Friars, Mexico	17 28 35 N 101 31 40 W	80 fathoms. Mud.
264-34	2	South of White Friars, Mexico	17 30 50 N 101 29 55 W	25 fathoms. Rock, gorgonids.
265-34	3	Petatlan Bay, Mexico	17 31 45 N 101 27 34 W	5-10 fathoms. Hard sand, shell.
266-34	3	South of Morro de Petatlan, Mexico	17 30 N 101 27 40 W	15 fathoms. Rock.
267-34	3	West of Morro de Petatlan, Mexico	17 30 30 N 101 28 40 W	25 fathoms. Sand.

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Mar. 1934						
268-34	3	North of White Friars, Mexico	17 31 30 N	101 29 27 W	25 fathoms. Coarse sand.	
269-34	3	East of White Friars Islands, Mexico	17 31 20 N	101 29 W	5-10 fathoms. Rock, coral, nullipores.	
270-34	3	Petalan Bay, Mexico	17 31 30 N	101 27 15 W	Shore. Rock.	
271-34	4	Tenacatita Bay, Mexico	19 17 57 N	104 50 35 W	10 fathoms. Mud, sand, shell.	
272-34	4	Tenacatita Bay, Mexico	19 16 38 N	104 50 35 W	25 fathoms. Coarse sand.	
273-34	4	West of islands off Navidad Head, Tenacatita Bay, Mexico	19 13 40 N	104 50 47 W	45 fathoms. Muddy sand.	
274-34	4	South of Islands off Navidad Head, Tenacatita Bay, Mexico	19 12 50 N	104 50 50 W	50 fathoms. Mud, sand.	
275-34	4	West of islets off Navidad Head, Tenacatita Bay, Mexico	19 12 50 N	104 49 48 W	25-35 fathoms. Rock.	
276-34	4	Tenacatita Bay, Mexico	19 17 37 N	104 51 10 W	Shore. Rock.	
277-34	5	Off Isabel Island, Mexico	21 51 35 N	105 54 30 W	All around the island. 10-25 fathoms Sand, nullipores.	
278-34	5	Isabel Island, Mexico	21 51 30 N	105 53 35 W	Shore in cove. Sand, Rock.	
279-34	7	Santa Maria Bay, off Hughes Point, Lower California	24 44 45 N	112 15 20 W	10 fathoms. Rough rock.	
280-34	7	Santa Maria Bay, south of Hughes Point, Lower California	24 43 10 N	112 16 15 W	30-40 fathoms. Sand.	
281-34	7	Santa Maria Bay, off Hughes Point, Lower California	24 45 05 N	112 19 W	30 fathoms. Shell.	
282-34	7	Santa Maria Bay, Hughes Point, Lower California	24 44 20 N	112 16 W	Shore. Rock.	
283-34	9	Off Thurloe Head, Lower California	27 36 50 N	114 50 50 W	8-10 fathoms. Rock with gorgonids.	
284-34	9	Off Thurloe Head, Lower California	27 37 10 N	114 52 20 W	30 fathoms. Coarse sand.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Mar. 1934						
285-34	9	Off Thurloe Head, Lower California	27 37 30 N	114 52 55 W	30 fathoms. Shell.	
286-34	9	Thurloe Bay, Lower California	27 37 30 N	114 50 45 W	Shore. Sand.	
287-34	10	South Bay, Cedros Island	28 04 45 N	115 21 05 W	10-15 fathoms. Rock along margin of kelp bed.	
288-34	10	South Bay, Cedros Island	28 05 20 N	115 20 20 W	Shore. Rock.	
ALLAN HANCOCK SUMMER CRUISE OF 1934						
June 1934						
Mexico						
289-34	8	Southeast of Cape Rule, Socorro Island	18 41 50 N	110 57 20 W	4-15 fathoms. Sand, nullipores.	
290-34	8	Southeast of Cape Rule, Socorro Island	18 42 10 N	110 57 20 W	4-10 fathoms. Coral.	
291-34	8	Off Cape Rule, Socorro Island	18 42 15 N	110 57 05 W	4-10 fathoms. Sand.	
292-34	8	Off Braithwaite Bay, Socorro Island	18 42 N	110 57 W	30 fathoms. Sand, rock.	
293-34	8	Southeast of Cape Rule, Socorro Island	18 41 50 N	110 57 20 W	20 fathoms. Sand, nullipores.	
294-34	8	Southeast of Cape Rule, Socorro Island	18 41 50 N	110 57 20 W	20 fathoms. Sand, nullipores.	
295-34	8	Off Braithwaite Bay, Socorro Island	18 42 25 N	110 55 40 W	20 fathoms. Sand, nullipores.	
296-34	9	Cornwallis Bay, Socorro Island	18 44 15 N	110 59 40 W	Shore. Rock.	
297-34	9	East of Cape Rule, Socorro Island	18 42 25 N	110 57 40 W	Diving and netting.	
298-34	10	Sulphur Bay, Clarion Island	18 20 50 N	114 44 10 W	Shore. Rock, tide pools.	
299-34	11	Off Sulphur Bay, Clarion Island	18 20 05 N	114 43 50 W	35 fathoms. Sand.	
300-34	11	Off Sulphur Bay, Clarion Island	18 19 50 N	114 43 45 W	40 fathoms. Sand.	
301-34	11	Off Sulphur Bay, Clarion Island	18 19 35 N	114 44 20 W	55 fathoms. Nullipores, coralline, algae.	
302-34	11	Off Sulphur Bay, Clarion Island	18 19 50 N	114 44 25 W	40 fathoms. Nullipores, coralline.	
303-34	11	Off Sulphur Bay, Clarion Island	18 20 10 N	114 44 15 W	30 fathoms. Nullipores, coralline.	
304-34	11	Off Sulphur Bay, Clarion Island	18 20 25 N	114 44 30 W	20 fathoms. Nullipores, algae.	
305-34	11	Off Sulphur Bay, Clarion Island	18 20 30 N	114 44 30 W	15 fathoms. Sand, nullipores.	

ALLAN HANCOCK PACIFIC EXPEDITION OF 1935

Station	Date	Locality	Bearings			Remarks
			Galapagos Islands			
Dec. 1934						
306-35	2	Bindloe Island	0 20 45 N	90 33	W	Reef. Lava rock.
307-35	3	Off Bindloe Island	0 17 50 N	90 30	30 W	20 fathoms. Rock. Tangles.
308-35	3	Off Bindloe Island	0 18 55 N	90 30	30 W	3-5 fathoms. Sand.
309-35	3	Off Bindloe Island	0 20	N	90 31 10 W	8 fathoms. Rock.
310-35	3	Off Bindloe Island	0 18 20 N	90 31	W	15 fathoms. Rock. Tangles.
311-35	3	Off Bindloe Island	0 17 50 N	90 30	30 W	20 fathoms. Rock. Tangles.
312-35	5	Black Beach, Charles Island	1 16 36 S	90 29 42	W	Shore. Rock.
313-35	6	Black Beach, Charles Island	1 17 38 S	90 29 55	W	Shore. Rock.
314-35	7	Academy Bay, Indefatigable Island	0 45 14 S	90 20 11	W	Shore. Rock.
315-35	8	Opposite Gordon Rocks, Indefatigable Island	0 34 10 S	90 11	W	Shallow water. Coral.
316-35	8	Off Gordon Rocks, Indefatigable Island	0 33 35 S	90 10 40	W	20 fathoms. Rock.
317-35	8	Off Gordon Rocks, Indefatigable Island	0 33 30 S	90 09 45	W	25-30 fathoms. Rock.
318-35	8	Off Gordon Rocks, Indefatigable Island	0 32 45 S	90 09 25	W	45 fathoms. Rock.
319-35	8	Academy Bay, Indefatigable Island	0 45 56 S	90 19 56	W	8-15 fathoms. Rock.
320-35	8	Academy Bay, Indefatigable Island	0 46 03 S	90 20 07	W	8-10 fathoms. Coral (<i>Pecillopora</i>).
321-35	8	Academy Bay, Indefatigable Island	0 45 47 S	90 20	W	12 fathoms. Sand.
322-35	10	Tagus Cove, Albemarle Island	0 16 08 S	91 22 38	W	15 fathoms. Coarse black sand.
323-35	10	Tagus Cove, Albemarle Island	0 16 17 S	91 22 41	W	15 fathoms. Sand.
324-35	10	Tagus Cove, Albemarle Island	0 16 42 S	91 22 50	W	45 fathoms. Rock, nullipores.
325-35	10	Off Tagus Cove, Albemarle Island	0 16 47 S	91 23 01	W	80 fathoms. Rock.
326-35	10	Tagus Cove, Albemarle Island	0 16 26 S	91 22 42	W	15 fathoms. Sand, nullipores.
327-35	10	Tagus Cove, Albemarle Island	0 16 16 S	91 22 39	W	12 fathoms. Sand, nullipores.
328-35	10	Tagus Cove, Albemarle Island	0 16 23 S	91 22 46	W	14 fathoms. Sand, nullipores.

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Dec. 1934						
329-35	10	Tagus Cove, Albemarle Island	0 16 08 S	91 22 38 W	12 fathoms. Sand, nullipores.	
330-35	10	Tagus Cove, Albemarle Island	0 16 16 S	91 22 39 W	12 fathoms. Sand, nullipores.	
331-35	10	Tagus Cove, Albemarle Island	0 15 56 S	91 22 35 W	Salt Lake, near shore.	
332-35	10	2 miles south of Tagus Cove, Albemarle Island	0 19 S	91 21 25 W	Shore, Rock.	
333-35	11	West coast of James Island	0 16 10 S	90 53 45 W	Shore. Rocky ledges.	
334-35	11	Crater Lake 2 miles from shore, James Bay, James Island	0 14 15 S	90 50 W		
335-35	11	Sullivan Bay, James Island	0 17 02 S	90 35 12 W	Shore. Rock.	
336-35	12	Sullivan Bay, James Island	0 16 30 S	90 35 20 W	20 fathoms. Rock, red algae.	
337-35	12	Sullivan Bay, James Island	0 17 S	90 35 10 W	2-5 fathoms. Rock, algae.	
338-35	12	Sullivan Bay, James Island	0 16 30 S	90 34 55 W	30 fathoms. Rock and sand. Tangles.	
339-35	12	Sullivan Bay, James Island	0 17 20 S	90 35 10 W	10 fathoms. Rock, algae. Tangles.	
340-35	12	Sullivan Bay, James Island	0 17 20 S	90 35 10 W	8 fathoms. Rock. Tangles.	
341-35	12	Sullivan Bay, James Island	0 16 30 S	90 35 20 W	20 fathoms. Rock with sand patches, red algae.	
342-35	12	Bartholomew Island, near James Island	0 17 S	90 34 35 W	Shore. Rock.	
343-35	12	Sullivan Bay, James Island	0 17 S	90 35 13 W	Shore. Rock.	
344-35	12	Bartholomew Island, near James Island	0 17 S	90 34 35 W	Shallow water. Coral.	
345-35	13	Between Seymour and Daphne Islands	0 24 50 S	90 21 40 W	30 fathoms. Mud, shell.	
346-35	13	Between South Seymour and Daphne Islands	0 24 25 S	90 21 50 W	55 fathoms. Mud, shell.	
347-35	13	Off North Seymour Island	0 25 S	90 19 50 W	3 fathoms. Sand, rock, shell.	
348-35	13	Off North Seymour Island	0 24 15 S	90 20 10 W	15 fathoms. Rock, sand, shell.	
349-35	13	Off South Seymour Island	0 25 25 S	90 20 50 W	15 fathoms. Sand, shell.	
350-35	13	South Seymour Island	0 24 20 S	90 20 W	Shore. Rock, sand.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Dec. 1934						
351-35	14	South of Black Beach, Charles Island	1 19 40 S	90 13 15 W	Shore. Turnable rocks.	
352-35	15	Between Wreck and Stephens Bays, Chatham Island	0 48 50 S	89 31 40 W	35 fathoms. Rock, sand. Tangles.	
353-35	15	Stephens Bay, Chatham Island	0 47 45 S	89 30 15 W	20 fathoms. Sand, rock.	
354-35	15	Wreck Bay, Chatham Island	0 53 55 S	89 36 35 W	Shore. Rock.	
354a-35	16	El Junco Lake, Chatham Island	0 53 30 S	89 30	Shore of lake.	
355-35	17	Off Gardner Island, near Hood Island	1 22 20 S	89 39 37 W	12 fathoms. Rock. Tangles.	
356-35	17	Hood Island, at Gardner Bay	1 22 20 S	89 40 23 W	12-15 fathoms. Rock. Tangles.	
357 35	17	Gardner Bay, Hood Island	1 22 18 S	89 39 15 W	Shallow water. Coral.	
358-35	17	Hood Island, at Gardner Bay	1 22 30 S	89 40 23 W	Shore. Rock.	
359-35	19	Osborn Island in Gardner Bay, Hood Island	1 22 52 S	89 39 15 W	Shore. Rock.	
360-35	19	Gardner Bay, Hood Island	1 22 52 S	89 39 52 W	3 fathoms. White sand.	
361-35	19	Gardner Bay, Hood Island	1 22 30 S	89 39 55 W	12 fathoms. Sand, algae.	
362-35	19	Gardner Bay, Hood Island	1 22 07 S	89 39 58 W	20 fathoms. Rock, kelp, algae.	
Ecuador						
363-35	23	Puná Island, Ecuador	2 44 30 S	79 53 45 W	Shore. Fresh water.	
Peru						
Jan. 1935						
364-35	10	Off Lorenzo Island, near Callao, Peru	12 05 52 S	77 12 45 W	Sand.	
365-35	10	Off Lorenzo Island, near Callao, Peru	12 06 25 S	77 11 07 W	10 fathoms. Rock.	
366-35	10	South of Lorenzo Island, near Callao, Peru	12 06 55 S	77 12 05 W	8 fathoms. Rock.	
367-35	10	South of Lorenzo Island, near Callao, Peru	12 06 45 S	77 11 45 W	25 fathoms. Mud.	
368-35	11	South of Lorenzo Island, near Callao, Peru	12 07 30 S	77 12 32 W	13 fathoms. Rock.	
369-35	11	Off Fronton Island, near Callao, Peru	12 07 25 S	77 11 30 W	5 fathoms. Rock.	
370-35	11	Off Fronton Island, near Callao, Peru	12 07	S 77 11 40 W	5 fathoms. Rock.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
	Jan. 1935					
371-35	12	East of Viejas Island, Independencia Bay, Peru	14 15 05 S	76 12 35 W	5 fathoms. Sand, rock.	
372-35	12	East of Viejas Island, Independencia Bay, Peru	14 15 05 S	76 12 35 W	5 fathoms. Sand, rock.	
373-35	12	Off Viejas Island, Independencia Bay, Peru	14 15 05 S	76 12 W	12 fathoms. Sand.	
374-35	12	Off Viejas Island, Independencia Bay, Peru	14 15 05 S	76 12 W	12 fathoms. Sand, mud.	
375-35	13	East of Viejas Island, Independencia Bay, Peru	14 14 S	76 12 40 W	Shore. Sand.	
375a-35	13	East of Viejas Island, Independencia Bay, Peru	14 14 S	76 12 40 W	Lobster traps. Rock.	
376-35	13	East of Viejas Island, Independencia Bay, Peru	14 15 35 S	76 11 35 W	7 fathoms. Rock.	
377-35	13	East of Viejas Island, Independencia Bay, Peru	14 15 50 S	76 11 25 W	12 fathoms. Rock.	
378-35	13	East of Viejas Island, Independencia Bay, Peru	14 16 S	76 10 40 W	20 fathoms. Rock, mud.	
379-35	13	East of Viejas Island, Independencia Bay, Peru	14 16 05 S	76 09 30 W	20 fathoms. Mud.	
380-35	14	Independencia Bay, Peru	14 14 08 S	76 08 30 W	Shore. Rock.	
380a-35	14	Independencia Bay, Peru	14 14 40 S	76 09 07 W	12 fathoms. Rock, sand.	
381-35	14	Independencia Bay, Peru	14 14 S	76 08 45 W	5 fathoms. Rock, sand.	
382-35	14	Independencia Bay, Peru	14 13 55 S	76 08 45 W	5 fathoms. Rock, sand.	
383-35	14	Independencia Bay, Peru	14 13 S	76 08 45 W	3-5 fathoms. Sand, sea pansies.	
384-35	14	Independencia Bay, Peru	14 13 S	76 09 20 W	5 fathoms. Rock, spider crabs.	
385-35	14	Independencia Bay, Peru	14 13 S	76 09 20 W	9-10 fathoms. Red algae, gastropods.	
386-35	15	Off Middle Chincha Island, Peru	13 39 15 S	76 24 40 W	8 fathoms. Sand.	
387-35	15	Off Middle Chincha Island, Peru	13 39 15 S	76 24 40 W	5 fathoms. Sand.	
388-35	15	Off Middle Chincha Island, Peru	13 39 15 S	76 24 40 W	3-8 fathoms. Kelp, sand.	
389-35	15	Off Middle Chincha Island, Peru	13 39 15 S	76 24 40 W	8-10 fathoms. Sand, kelp.	
390-35	15	Between North and Middle Chincha islands, Peru	13 38 30 S	76 22 25 W	24 fathoms. Shell.	
391-35	17	Lobos de Afuera Islands, Peru	6 55 40 S	80 43 40 W	Shore. Rock.	

Station	Date	Locality	Bearings			Remarks
Jan. 1935						
392-35	17	North Bay, Lobos de Afuera Islands, Peru	6 55 07 S	80 43 53 W	20-22 fathoms. Sand.	
393-35	17	North Bay, Lobos de Afuera Islands, Peru	6 55 35 S	80 43 38 W	12 fathoms. Rock.	
394-35	17	South Bay, Lobos de Afuera Islands, Peru	6 56 04 S	80 43 W	12 fathoms. Rock.	
395-35	17	South Bay, Lobos de Afuera Islands, Peru	6 56 12 S	80 42 50 W	14-16 fathoms. Rock.	
Ecuador						
396-35	18	Salango Island, Ecuador	1 35 10 S	80 51 55 W	12 fathoms. Rock, sand.	
397-35	18	Salango Island, Ecuador	1 35 15 S	80 52 52 W	3 fathoms. Sand.	
398-35	18	Salango Island, Ecuador	1 35 15 S	80 52 52 W	3 fathoms. Sand.	
399-35	18	Salango Island, Ecuador	1 35 12 S	80 35 48 W	8 fathoms. Sand.	
400-35	19	Manta Bay, Ecuador	0 56 30 S	80 44 18 W	Shore. Rock, sand.	
401-35	19	Manta Bay, Ecuador	0 56 30 S	80 44 W	1 fathom. Sand.	
402-35	19	Manta Bay, Ecuador	0 56 17 S	80 44 18 W	1 fathom. Sand.	
403-35	20	West of Manta, Ecuador	0 56 43 S	80 44 43 W	Reef with breakers.	
Colombia						
404-35	21	Off Gorgona Island, Colombia	3 01 N	78 11 15 W	3 fathoms. Rock. Tangles.	
405-35	22	Gorgona Island, Colombia	2 58 N	78 11 30 W	Shore. Rock, sand.	
406-35	22	Off Monkey Point, Gorgona Island, Colombia	2 57 N	78 10 W	22 fathoms. Nullipores.	
407-35	22	Off Monkey Point, Gorgona Island, Colombia	2 57 N	78 10 W	20 fathoms. Mud.	
408-35	22	Off Monkey Point, Gorgona Island, Colombia	3 01 30 N	78 03 W	65-80 fathoms. Gray mud.	
409-35	22	Off North Point, Gorgona Island, Colombia	3 02 N	78 10 30 W	20 fathoms. Nullipores.	
410-35	22	Off sandy beach, Gorgona Island	2 58 N	78 11 50 W	1 fathom. Gravel.	
411-35	22	Gorgona Island, Colombia	2 58 N	78 11 50 W	Shallow water. Coral (<i>Pocillopora</i>).	
412-35	22	Gorgona Island, Colombia	2 58 N	78 11 50 W	Shallow water. Coral (<i>Paeona</i>).	
413-35	23	Port Utria, Colombia	5 59 10 N	77 21 20 W	Shore. Rock.	

Station	Date	Locality	Bearings			Remarks
Jan. 1935						
414-35	23	Port Utria, Colombia	5 59 10 N	77 21 20 W	3 fathoms. Coral (<i>Pocillopora</i>).	
415-35	24	Off Port Utria, Colombia	5 57 25 N	77 20 50 W	45 fathoms. Mud.	
415a-35	24	Off Port Utria, Colombia	5 57 10 N	77 20 55 W	50 fathoms. Mud.	
416-35	24	Off Port Utria, Colombia	5 57 10 N	77 20 55 W	50 fathoms. Mud.	
417-35	24	Port Utria, Colombia	5 57 40 N	77 20 15 W	10 fathoms. Mud.	
418-35	24	Port Utria, Colombia	5 59 55 N	77 20 30 W	Shore. Sand.	
419-35	24	Port Utria, Colombia	5 59 10 N	77 21 20 W	Shallow water. Coral.	
420-35	25	Off Port Utria, Colombia	5 58 N	77 21 15 W	35 fathoms. Mud, sand.	
421-35	25	Off Port Utria, Colombia	5 58 N	77 21 30 W	40 fathoms. Soft mud.	
422-35	25	Off Port Utria, Colombia	5 58 35 N	77 22 10 W	35 fathoms. Mud, shell.	
423-35	25	Off Port Utria, Colombia	5 59 20 N	77 21 50 W	20 fathoms. Rock, sand, mud.	
424-35	25	Port Utria, Colombia	5 59 25 N	77 21 30 W	7 fathoms. Mud.	
425-35	25	Port Utria, Colombia	5 59 20 N	77 21 10 W	12 fathoms. Coarse sand.	
426-35	25	Port Utria, Colombia	5 59 20 N	77 21 10 W	15 fathoms. Mud.	
427-35	26	Cupica Bay, Colombia	6 39 10 N	77 30 40 W	Shore. Rock.	
428-35	26	Cupica Bay, Colombia	6 40 10 N	77 33 10 W	Anchorage. Electric Light.	
429-35	27	Octavia Bay, Colombia	6 48 40 N	77 40 50 W	30-35 fathoms. Coarse sand, gravel.	
430-35	27	Octavia Bay, Colombia	6 47 45 N	77 43 30 W	75 fathoms. Soft mud.	
431-35	27	Off Octavia Rocks, Colombia	6 47 20 N	77 41 40 W	45 fathoms. Sand, gravel.	
432-35	27	Octavia Bay, Colombia	6 47 45 N	77 42 W	50 fathoms. Soft mud, fine gravel.	
433-35	27	Octavia Bay, Colombia	6 49 50 N	77 41 35 W	Shore, on island. Shingle.	
434-35	28	Octavia Bay, Colombia	6 50 N	77 41 10 W	2 fathoms.	
435-35	28	Octavia Bay, Colombia	6 50 N	77 41 10 W	Shallow water. Coral.	

Station	Date	Locality	Bearings			Remarks
Panama						
Jan. 1935						
436-35	28	Piñas Bay, Panama	7 34 08 N	78 12 10 W	Shore. Rock.	
437-35	28	Piñas Bay, Panama	7 33 25 N	78 10 35 W	Shallow water. Coral.	
438-35	29	Piñas Bay, Panama	7 33 10 N	78 13 20 W	25 fathoms. Coarse sand.	
439-35	29	Piñas Bay, Panama	7 33 05 N	78 13 20 W	20 fathoms. Mud, sand.	
440-35	29	Piñas Bay, Panama	7 33 50 N	78 12 40 W	15 fathoms. Sticky mud.	
441-35	29	Piñas Bay, Panama	7 34 18 N	78 13 40 W	32 fathoms. Soft mud.	
442-35	29	Piñas Bay, Panama	7 33 45 N	78 13 40 W	30-35 fathoms. Rock, coarse sand.	
443-35	29	Piñas Bay, Panama	7 34 18 N	78 13 40 W	20 fathoms. Mud.	
444-35	29	Piñas Bay, Panama	7 32 30 N	78 10 50 W	2-4 fathoms. Coral.	
Feb. 1935						
445-35	2	Panama City, Panama	8 57 15 N	79 31 45 W	Shore. Rock.	
446a-35	4	Secas Islands, Panama	7 57 N	82 01 25 W	Shore. Reef, inland.	
446b-35	4	Secas Islands, Panama	7 57 N	82 01 25 W	Shore. Rock.	
447-35	4	Secas Islands, Panama	7 57 10 N	82 00 45 W	Shallow water. Coral.	
448-35	5	Secas Islands, Panama	7 57 45 N	82 00 45 W	12 fathoms. Sand, nullipores.	
449-35	5	Secas Islands, Panama	7 57 15 N	82 01 35 W	25 fathoms. Sand, nullipores.	
450-35	5	Secas Islands, Panama	7 57 N	82 01 35 W	14 fathoms. Shell, nullipores.	
451-35	5	Secas Islands, Panama	7 57 30 N	82 01 50 W	12 fathoms. Sand.	
452-35	5	Secas Islands, Panama	7 58 30 N	82 01 55 W	Fresh water stream and pools.	
453-35	5	Secas Islands, Panama	7 58 15 N	82 01 W	Anchorage. Electric Light.	
454-35	6	Secas Islands, Panama	7 57 10 N	82 00 45 W	Shore. Tide flats. Coral.	
455-35	6	Secas Islands, Panama	7 58 30 N	82 01 55 W	Freshwater stream and pools.	
456-35	6	Secas Islands, Panama	7 57 50 N	82 01 15 W	12 fathoms. Sand, nullipores.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Feb. 1935						
457-35	6	Secas Islands, Panama	7 57 50 N	82 01 15 W	12 fathoms. Sand, rock.	
458-35	6	Secas Islands, Panama	7 57 55 N	82 02 W	5-20 fathoms. Mud, sand.	
Costa Rica						
459-35	8	Playa Blanca, Costa Rica	10 56 45 N	85 53 30 W	2-3 fathoms. Rock, algae.	
460-35	8	Playa Blanca, Costa Rica	10 56 N	85 52 50 W	3-5 fathoms. Sand, shells.	
461-35	8	Playa Blanca, Costa Rica	10 56 45 N	85 53 50 W	15 fathoms. Mud, sand, algae.	
462-35	8	Playa Blanca, Costa Rica	10 56 45 N	85 56 W	40 fathoms. Mud, sand.	
463-35	8	Playa Blanca, Costa Rica	10 53 45 N	85 57 45 W	25 fathoms. Shell. Little life.	
464-35	8	Playa Blanca, Costa Rica	10 55 30 N	85 53 W	Shore. Coral.	
465-35	8	Playa Blanca, Costa Rica	10 56 45 N	85 53 30 W	Shore. Shale.	
466-35	9	Port Parker, Costa Rica	10 56 N	85 48 47 W	Shore. Small island at entrance. Rock.	
467-35	9	Port Parker, Costa Rica	10 55 55 N	85 49 20 W	2 fathoms. Rock, algae.	
468-35	9	Port Parker, Costa Rica	10 57 35 N	85 49 W	5 fathoms. Sand, shell.	
469-35	9	Port Parker, Costa Rica	10 56 10 N	85 49 05 W	10 fathoms. Sand, shell.	
470-35	9	Port Parker, Costa Rica	10 57 35 N	85 49 W	5 fathoms. Sand, mud.	
471-35	9	Port Parker, Costa Rica	10 56 10 N	85 49 05 W	10 fathoms. Mud.	
472-35	9	Port Parker, Costa Rica	10 57 50 N	85 48 45 W	30 fathoms. Shell.	
473-35	9	Port Parker, Costa Rica	10 54 55 N	85 49 W	Shall water. Coral.	
474-35	10	Salinas Bay, Costa Rica	11 02 N	85 42 45 W	Shore. Sandstone.	
475-35	11	Salinas Bay, Costa Rica	11 04 25 N	85 44 40 W	20 fathoms. Mud.	
476-35	11	Salinas Bay, Costa Rica	11 03 33 N	85 43 47 W	8 fathoms. Mud.	
477-35	11	Salinas Bay, Costa Rica	11 03 20 N	85 43 30 W	2 fathoms. Coarse sand.	
478-35	11	Salinas Bay, Costa Rica	11 03 13 N	85 43 20 W	1½ fathoms. Coarse sand.	

Station	Date	Locality	Bearings			Remarks
Feb. 1935						
479-35	11	Salinas Bay, Costa Rica	11 02 50 N	85 44 10 W	2 fathoms. Sand.	
480-35	11	Salinas Bay, Costa Rica	11 04 10 N	85 44 40 W	12 fathoms. Shells, vegetation.	
481-35	11	Salinas Bay, Costa Rica	11 03 33 N	85 44 05 W	6 fathoms. Shells, vegetation.	
Mexico						
482-35	15	Tenacatita Bay, Mexico	19 18 N	104 50 W	10 fathoms. Mud, sand.	
483-35	15	Tenacatita Bay, Mexico	19 18 N	104 50 W	6 fathoms. Mud, sand.	
484-35	15	Tenacatita Bay, Mexico	19 18 N	104 50 W	8 fathoms. Mud.	
485-35	15	Tenacatita Bay, Mexico	19 18 N	104 50 W	5 fathoms. Sand, shell.	
486-35	15	Tenacatita Bay, Mexico	19 18 N	104 50 W	10 fathoms. Sand, shell, algae.	
487-35	15	Tenacatita Bay, Mexico	19 18 N	104 51 35 W	Lagoon. <i>Pinnas</i> .	
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Mexico						
Feb. 1936						
West Coast of Lower California						
488-36	15	San Quentin Bay, Lower California	30 22 N	115 57 20 W	3-5 fathoms. Sand, seaweed.	
489-36	15	San Quentin Bay, Lower California	30 20 55 N	115 56 35 W	12 fathoms. Sand, seaweed.	
490-36	15	San Quentin Bay, Lower California	30 19 35 N	115 56 50 W	25 fathoms. Sand, seaweed.	
491-36	15	Rosario Bay, Lower California	29 55 N	115 48 30 W	10-15 fathoms. Rock, kelp.	
492-36	16	Off Point Tosco, Lower California	24 18 10 N	111 38 55 W	45 fathoms. Green mud.	
493-36	16	Off Point Tosco, Lower California	24 18 20 N	111 41 55 W	15 fathoms. Sand, kelp.	
Gulf of California						
494-36	18	East of Cape San Lucas, Lower California	22 52 35 N	119 52 10 W	25 fathoms. Mud.	
495-36	18	North of Cabeza Ballena, Lower California	22 56 30 N	109 47 W	10-15 fathoms. Sand.	
496-36	18	Fraila Bay, Lower California	23 21 55 N	109 24 40 W	80 fathoms. Mud.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Feb. 1936						
497-36	18	Frail Bay, Lower California	23 22 30 N	109 24 45 W	8-10 fathoms. Sand.	
498-36	19	San Lorenzo Channel, Gulf of California	24 22 35 N	110 19 40 W	5-15 fathoms. Coralline.	
499-36	19	San Lorenzo Channel, Gulf of California	24 22 05 N	110 20 55 W	35 fathoms. Sand.	
500-36	20	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 25 25 N	110 20 55 W	Shore. Sand, rock.	
501-36	20	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 25 25 N	110 20 55 W	Shallow water. Coral.	
502-36	21	Pichilique Harbor, Lower California	24 15 N	110 19 55 W	7 fathoms. Sandy mud.	
503-36	21	Off Prieta Point Light, La Paz Bay, Lower California	24 13 25 N	110 19 05 W	5 fathoms. Coralline.	
504-36	21	Pichilique Harbor, Lower California	24 14 N	110 18 40 W	3 fathoms. Sand, seaweed.	
505-36	21	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 25 15 N	110 21 45 W	Anchorage. Electric Light.	
506-36	22	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 24 45 N	110 21 10 W	1-4 fathoms. Broken shell.	
507-36	22	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 24 35 N	110 23 W	35 fathoms. Mud, sand.	
508-36	22	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 24 20 N	110 24 55 W	80 fathoms. Thick mud.	
509-36	22	West of Espiritu Santo Island, Gulf of California	24 23 55 N	110 22 15 W	24 fathoms. Mud, sand.	
510-36	22	Cove south of Ballenas Bay, Espiritu Santo Island, Gulf of California	24 26 35 N	110 22 W	Shore. Sand, rock.	
511-36	22	Cove south of Ballenas Bay, Espiritu Santo Island, Gulf of California	24 26 35 N	110 22 W	Shore. Behind mangroves.	

Station	Date	Locality	Bearings			Remarks
Feb. 1936						
512-36	23	Ballenas Bay, Espiritu Santo Island, Gulf of California	24 27 45 N	110 22	W	Shore. Rock.
513-36	24	Off San Francisco Island, Gulf of California	24 48 40 N	110 37 20	W	30 fathoms. Coralline.
514-36	24	South of San Francisco Island, Gulf of California	24 48 30 N	110 35 20	W	15 fathoms. Sand, coralline.
515-36	24	East of San Francisco Island, Gulf of California	24 49 50 N	110 34	W	Shore. Reef.
516-36	25	East of San Francisco Island, Gulf of California	24 49 45 N	110 30 35	W	125-150 fathoms. Sand, mud.
517-36	25	East of San Francisco Island, Gulf of California	24 49 30 N	110 32 35	W	15 fathoms. Sand.
518-36	25	North Bay, San Francisco Island, Gulf of California	24 50 05 N	110 35	W	Shore. Rock, sand.
519-36	26	North Bay, San Francisco Island, Gulf of California	24 50 05 N	110 35	W	Shore. Rock, sand.
520-36	27	Agua Verde Bay, Lower California	25 31	N 111 01 45	W	5-10 fathoms. Mud, sand, broken shell.
521-36	27	Agua Verde Bay, Lower California	25 31	N 111 01 45	W	Mud, sand, broken shell.
522-36	27	Agua Verde Bay, Lower California	25 29 40 N	110 58 45	W	Shore. Reef.
523-36	28	South of Coronados Island, Gulf of California	26 03 45 N	111 17	W	100-120 fathoms. Broken shell.
524-36	28	Southwest of Coronados Island, Gulf of California	26 04 40 N	111 17 55	W	45-50 fathoms. Coarse white sand.
525-36	28	West of Coronados Island, Gulf of California	26 05 40 N	111 19 10	W	3-10 fathoms. Coralline.
526-36	28	South of Mangles Anchorage, Lower California	26 16 55 N	111 23 45	W	3-5 fathoms. Sand, seaweed.
527-36	28	Mangles Anchorage, Lower California	26 16 35 N	111 24 05	W	Shore. Rock.
Mar. 1936						
528-36	1	Off San Francisco Bay, Lower California	28 26 15 N	112 54	W	45 fathoms. Sand. (<i>Stylocidaris</i>).
529-36	1	Off San Francisco Bay, Lower California	28 27 10 N	112 49 25	W	165 fathoms. Shale, gray mud.

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Mar. 1936						
530-36	1	Off San Francisco Bay, Lower California	28 25 55 N	112 53 15 W	10-20 fathoms. Coral, nullipores, kelp.	
531-36	1	San Francisco Bay, Lower California	28 25 55 N	112 53 30 W	10 fathoms. Sand, kelp, red, green, and brown algae.	
532-36	2	San Francisco Bay, Lower California	28 25 55 N	112 53 15 W	20 fathoms. Sand, kelp.	
533-36	2	San Francisco Bay, Lower California	28 26 40 N	112 52 40 W	40 fathoms. Sand, broken shell.	
534-36	2	Off San Francisco Bay, Lower California	28 26 50 N	112 50 45 W	125 fathoms. Shale, rock, mud.	
535-36	2	Entrance to Angeles Bay, Lower California	20 57 N	113 30 45 W	25-40 fathoms. Sand.	
536-36	2	Angeles Bay, Lower California	28 55 40 N	113 32 25 W	20 fathoms. Mud.	
537-36	2	Angeles Bay, Lower California	28 53 40 N	113 32 45 W	Shore. Sand.	
538-36	3	Entrance to Angeles Bay, Lower California	28 57 N	113 30 45 W	25 fathoms. Sand.	
539-36	3	Spit, Angeles Bay, Lower California	28 53 40 N	113 32 45 W	1 fathom. Sand. (<i>Encope</i>)	
540-36	3	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 31 58 N	113 33 34 W	Shore. Sand, rock.	
541-36	4	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 34 25 N	113 32 35 W	60 fathoms. Broken shell.	
542-36	4	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 32 40 N	113 32 22 W	15-30 fathoms. Oysters, etc.	
543-36	4	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 33 43 N	113 32 54 W	15 fathoms. Sand, kelp.	
544-36	4	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 34 25 N	113 32 35 W	65 fathoms. Sand.	
545-36	4	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 32 07 N	113 34 12 W	Shore. Rock.	
546-36	5	North of Angel de la Guardia Island, Gulf of California	29 34 25 N	113 32 35 W	40-70 fathoms. Sand.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Mar. 1936						
547-36	5	Angel de la Guardia Island, Gulf of California	29 32 22 N	113 33 08 W	1-8 feet. Netting from skiff.	
548-36	5	North of Angel de la Guardia Island, Gulf of California	29 35 30 N	113 33 25 W	80 fathoms. Sand.	
549-36	6	East of Angel de la Guardia Island, Gulf of California	29 32 30 N	113 29 50 W	40 fathoms. Sand.	
550-36	6	East of Angel de la Guardia Island, Gulf of California	29 32 N	113 27 W	90 fathoms. Mud.	
551-36	6	East of Angel de la Guardia Island, Gulf of California	29 30 35 N	113 27 20 W	8-10 fathoms. Rock, sand.	
552-36	6	Angel de la Guardia Island, Gulf of California	29 29 20 N	113 27 10 W	Shore. Potholes, beach.	
553-36	8	Pond Isle, east of Angel de la Guardia Island, Gulf of California	29 02 35 N	113 07 40 W	Shore. Lagoon and beach.	
554-36	8	East of Angel de la Guardia Island, Gulf of California	29 01 N	113 12 15 W	10 fathoms. Sand, red algae, scallops.	
555-36	8	Between Isla Partida and Angel de la Guardia Island, Gulf of California	28 56 50 N	113 07 W	20 fathoms. Nullipores.	
556-36	8	North of Isla Partida, Gulf of California	28 54 40 N	113 03 45 W	10 fathoms. Sand, gravel, sponge.	
557-36	8	Off White Rock, Isla Partida, Gulf of California	28 55 30 N	113 05 35 W	45 fathoms. Sand, gravel, sponge.	
558-36	9	South of Isla Partida, Gulf of California	28 52 15 N	113 04 W	20 fathoms. Gravel, sand.	
559-36	9	South of Isla Partida, Gulf of California	28 51 20 N	113 03 45 W	45 fathoms. Sand.	
560-36	9	West of Isla Partida, Gulf of California	28 53 10 N	113 05 35 W	40 fathoms. Rock.	
561-36	9	South of Isla Partida, Gulf of California	28 51 20 N	113 03 45 W	70 fathoms. Coral, sand.	
562-36	10	East of San Esteban Island, Gulf of California	28 41 25 N	112 32 15 W	20-70 fathoms. Sand, rock.	
563-36	10	Off south end of Tiburon Island, Gulf of California	28 40 55 N	112 18 W	40-55 fathoms. Muddy sand.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
	Mar. 1936					
564-36	10	Off south end of Tiburon Island, Gulf of California	28 44 45 N	112 18 20 W	W	8-10 fathoms. Kelp, coralline.
565-36	10	Off south end of Tiburon Island, Gulf of California	28 40 55 N	112 18	W	40 fathoms. Sand, mud.
566-36	11	South of Tiburon Island, Gulf of California	28 43 45 N	112 17 50 W	W	20 fathoms. Sand, shell.
567-36	11	South end of Tiburon Island, Gulf of California	28 44 45 N	112 18 20 W	W	4 fathoms. Sand, Ulva.
568-36	11	East of Tiburon Island, Gulf of California	28 47 25 N	112 16 20 W	W	10 fathoms. Rock.
569-36	11	East of Tiburon Island, Gulf of California	28 47 15 N	112 13 45 W	W	12 fathoms. Shell.
570-36	11	East of Tiburon Island, Gulf of California	28 47 45 N	112 12 25 W	W	12 fathoms. Mud.
571-36	11	East of Tiburon Island, Gulf of California	28 46 50 N	112 17 50 W	W	5 fathoms. Sand, kelp.
572-36	12	North of San Pedro Nolasco Island, Gulf of California	27 58 40 N	111 24 10 W	W	60 fathoms. Rock, sand.
573-36	12	North of San Pedro Nolasco Island, Gulf of California	27 58 40 N	111 24 10 W	W	60 fathoms. Rock, sand.
574-36	12	North of San Pedro Nolasco Island, Gulf of California	27 59 30 N	111 24 25 W	W	80 fathoms. Sand.
575-36	12	North of San Pedro Nolasco Island, Gulf of California	28 00 20 N	111 24 40 W	W	100 fathoms. Sand.
576-36	13	South of Tortuga Island, Gulf of California	27 25 30 N	111 53 25 W	W	21 fathoms. Volcanic sand.
577-36	13	South of Tortuga Island, Gulf of California	27 24	N 111 53 05 W	W	40 fathoms. Sand.
578-36	13	South of Tortuga Island, Gulf of California	27 22 45 N	111 53 25 W	W	83 fathoms. Rock.
579-36	14	East of San Marcos Island, Gulf of California	27 14 50 N	112 04 20 W	W	18 fathoms. Mud.
580-36	14	Southeast of San Marcos Island, Gulf of California	27 10 45 N	112 02	W	20 fathoms. Nullipores.
581-36	14	East of San Marcos Island, Gulf of California	27 10 15 N	112 02 45 W	W	12 fathoms. Sand, sponges.

Station	Date	Locality	Bearings	Remarks
Mar. 1936				
582-36	14	South of San Marcos Island, Gulf of California	27 09 05 N 112 04 25 W	20 fathoms. Coral, sand.
583-36	14	Southeast of San Marcos Island, Gulf of California	27 10 N 112 02 15 W	25 fathoms. Mud.
584-36	14	Concepción Bay, Lower California	26 44 40 N 111 54 W	West beach. Sponge, sand.
585-36	14	Coyote Bay, Concepción Bay, Lower California	26 43 25 N 111 54 05 W	2-3 fathoms. Sand, kelp.
586-36	14	Coyote Bay, Concepción Bay, Lower California	26 43 15 N 111 52 25 W	10 fathoms. Broken shell.
587-36	14	Concepción Bay, Lower California	26 43 25 N 111 52 05 W	Anchorage. Electric Light.
588-36	15	Coyote Bay, Concepción Bay, Lower California	26 43 10 N 111 52 25 W	14 fathoms. Mud.
589-36	15	Concepción Bay, Lower California	26 41 40 N 111 51 05 W	10 fathoms. Sand.
590-36	15	Concepción Bay, Lower California	26 42 55 N 111 50 40 W	15 fathoms. Shell.
591-36	16	Puerto Escondido, Lower California	25 50 05 N 111 19 W	Shore. Shingle.
592-36	16	Puerto Escondido, Lower California	25 48 50 N 111 18 W	24 fathoms. Mud, shell.
593-36	16	Puerto Escondido, Lower California	25 49 25 N 111 18 35 W	5 fathoms. Mud, shell.
594-36	16	Puerto Escondido, Lower California	25 49 15 N 111 19 W	10-15 fathoms. Sand, seaweed.
595-36	16	Puerto Escondido, Lower California	24 49 N 111 16 35 W	26 fathoms. Sand.
596-36	16	Puerto Escondido, Lower California	25 48 10 N 111 17 55 W	20 fathoms. Sand.
597-36	16	Puerto Escondido, Lower California	25 48 05 N 111 16 25 W	10 fathoms. Sand.
598-36	17	Puerto Escondido, Lower California	25 50 05 N 111 19 W	Dipnet and beach.
599-36	18	Agua Verde Bay, Lower California	25 31 40 N 110 59 35 W	30 fathoms. Mud.
600-36	18	Agua Verde Bay, Lower California	25 32 05 N 110 56 55 W	80 fathoms. Mud.
601-36	18	Agua Verde Bay, Lower California	25 31 40 N 110 59 35 W	20 fathoms. Mud.
602-36	18	Agua Verde Bay, Lower California	25 31 05 N 111 02 30 W	South shore. Diving and netting.
603-36	19	Agua Verde Bay, Lower California	25 31 05 N 111 02 30 W	South shore. Diving and netting.
604-36	20	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 25 25 N 110 20 55 W	Shallow water. Coral.

Station	Date	Locality	Bearings	Remarks
Mar. 1936				
605-36	20	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 25 25 N 110 20 55 W	Shore in lagoon.
606-36	21	San Lorenzo Channel, Gulf of California	24 22 N 110 19 30 W	14 fathoms. Sand.
607-36	21	San Lorenzo Channel, Gulf of California	24 21 35 N 110 20 10 W	24 fathoms. Coralline.
608-36	21	Balleas Bay, Espiritu Santo Island, Gulf of California	24 27 45 N 110 22 W	Shore. Sand, rock, <i>pinnas</i> .
West Coast of Lower California				
609-36	24	Middle San Benito Island	28 18 45 N 115 34 05 W	Shore. Rock.
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West Coast of Lower California				
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610-37	28	Rosario Bay, Lower California	29 54 20 N 115 48 20 W	15 fathoms. Sand, kelp.
611-37	28	Off Rosario Bay, Lower California	29 53 45 N 115 49 30 W	25 fathoms. Rock.
Mar. 1937				
612-37	1	Lagoon Head Anchorage, Lower California	28 12 25 N 114 06 30 W	7 fathoms. Sand.
613-37	1	Lagoon Head Anchorage, Lower California	28 10 55 N 114 13 W	17 fathoms. Sand.
614-37	1	Manuela Lagoon, near Lagoon Head Anchorage, Lower California	28 12 15 N 114 03 30 W	Shore. Sand.
615-37	2	San Juanico Bay, Lower California	26 14 30 N 112 28 20 W	Shore. Kelp, rock.
616-37	2	San Juanico Bay, Lower California	26 12 50 N 112 28 05 W	16 fathoms. Sand, kelp.
617-37	2	San Juanico Bay, Lower California	26 11 50 N 112 29 05 W	24 fathoms. Sand, kelp.
618-37	3	San Jaime Bank, off Cape San Lucas, Lower California	22 50 30 N 110 15 W	75 fathoms. Rock, coralline, sponge.
619-37	3	San Jaime Bank, off Cape San Lucas, Lower California	22 50 30 N 110 15 W	120 fathoms. Granite rock, coralline, sponge.

Station	Date	Locality	Bearings			Remarks
Mar. 1937						
Gulf of California—West Coast						
620-37	3	East of Cabeza Ballena, Lower California	22 53 50 N	109 49 45 W	25 fathoms. Fine gray sand.	
621-37	3	Cabeza Ballena, Lower California	22 53 20 N	109 50 20 W	Shore. Rock, tide pools.	
622-37	3	Cabeza Ballena, Lower California	22 53 20 N	109 50 20 W	Anchorage. Electric Light.	
623-37	4	Cabeza Ballena, Lower California	22 53 20 N	109 50 20 W	Shore. Rock, tide pools.	
624-37	4	Inner Gorda Bank, Gulf of California	23 01 N	109 30 50 W	120 fathoms. Sand.	
625-37	4	Ensenada de los Muertos, Lower California	23 59 N	109 48 35 W	Anchorage. Electric Light.	
626-37	5	Ensenada de los Muertos, Lower California	23 59 30 N	109 49 10 W	Shore. Rock, sand.	
627-37	5	Ensenada de los Muertos, Lower California	23 58 55 N	109 49 25 W	5 fathoms. Sand.	
628-37	5	Ensenada de los Muertos, Lower California	23 48 20 N	109 49 05 W	10-12 fathoms. Coralline.	
629-37	5	Ensenada de los Muertos, Lower California	23 48 50 N	109 48 35 W	40 fathoms. Broken shell.	
630-37	5	Off Prieta Point Light, La Paz Bay, Lower California	24 12 40 N	110 19 W	Anchorage. Electric Light.	
631 37	6	Off Prieta Point Light, La Paz Bay, Lower California	24 12 50 N	110 18 10 W	Shore. Sand.	
632-37	6	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 24 35 N	110 23 W	24 fathoms. Sandy mud.	
633-37	6	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 24 10 N	110 21 55 W	18 fathoms. Coralline.	
634-37	6	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 25 25 N	110 20 55 W	Shallow water. Coral.	
635-37	6	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 25 25 N	110 20 55 W	Shore. Lagoon.	
635a-37	6	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 25 25 N	110 20 55 W	Shore. Mollusks.	
636-37	6	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 24 10 N	110 21 55 W	Anchorage. Electric Light.	

Station	Date	Locality	Bearings	Remarks
Mar. 1937				
637-37	7	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 25 25 N 110 20 55 W	Lagoon. <i>Callinectes</i> .
638-37	7	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 25 25 N 110 20 55 W	Shallow water. Coral.
639-37	7	San Lorenzo Channel, Gulf of California	24 21 55 N 110 18 40 W	3-5 fathoms. Sand, coralline, algae.
640-37	7	Off San Lorenzo Channel, Gulf of California	24 21 20 N 110 21 W	30 fathoms. Sandy mud.
641-37	7	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 25 55 N 110 20 55 W	Land plants.
642-37	8	Off Ballenas Bay, Espiritu Santo Island, Gulf of California	24 27 N 110 23 05 W	25 fathoms. Coralline.
643-37	8	Off Ballenas Bay, Espiritu Santo Island, Gulf of California	24 27 15 N 110 22 20 W	8 fathoms. Coralline.
644-37	8	Off Ballenas Bay, Espiritu Santo Island, Gulf of California	24 26 45 N 110 24 40 W	48 fathoms. Mud, shell.
645-37	8	San Gabriel Bay, Espiritu Santo Island, Gulf of California	24 25 25 N 110 20 55 W	Shore. Lagoon.
646-37	8	San Francisco Island, Gulf of California	24 49 50 N 110 34 W	Shore. Shingle.
647-37	8	North of San Francisco Island, Gulf of California	24 51 10 N 110 33 45 W	22 fathoms. Coral.
648-37	8	North of San Francisco Island, Gulf of California	24 50 50 N 110 31 40 W	60 fathoms. Sand.
649-37	8	San Francisco Island, Gulf of California	24 48 N 110 35 55 W	Anchorage. Electric Light.
650-37	9	East of San Francisco Island, Gulf of California	24 47 35 N 110 32 20 W	47 fathoms. Coarse sand.
651-37	9	East of San Francisco Island, Gulf of California	24 47 25 N 110 31 20 W	60 fathoms. Sandy mud.
652-37	9	San Francisco Island, Gulf of California	24 49 50 N 110 34 W	Shore. Shingle.

Station	Date	Locality	Bearings			Remarks
Mar. 1937						
653-37	9	San Francisco Island, Gulf of California	24 49 50 N	110 34	W	Shallow water. Coral.
654-37	10	Agua Verde Bay, Lower California	25 31 05 N	111 02 30	W	Shore. Dipping for sea stars.
655-37	10	Agua Verde Bay, Lower California	25 31	N 111 01 45	W	10 fathoms. Sand.
656-37	10	Agua Verde Bay, Lower California	25 31 40 N	110 59 35	W	25 fathoms. Mud.
657-37	10	Agua Verde Bay, Lower California	25 31 45 N	110 58 20	W	70 fathoms. Mud.
658-37	10	Agua Verde Bay, Lower California	25 32 05 N	110 56 55	W	80 fathoms. Mud.
659-37	10	Agua Verde Bay, Lower California	25 29 40 N	110 58 45	W	San Marcial Reef. Low tide.
660-37	10	Agua Verde Bay, Lower California	25 31 05 N	111 02 30	W	Shore, north cove. Rock.
661-37	10	Agua Verde Bay, Lower California	25 31	N 111 01 45	W	Anchorage. Electric Light.
662-37	11	Agua Verde Bay, Lower California	25 31 35 N	111 01 45	W	Off San Marcial Reef. 8 fathoms. Rock.
663-37	11	Agua Verde Bay, Lower California	25 29 10 N	110 57 45	W	15 fathoms. Rock, mud.
664-37	11	Agua Verde Bay, Lower California	25 29 40 N	110 58 45	W	San Marcial Reef. Low tide.
665-37	11	Agua Verde Bay, Lower California	25 31 05 N	111 02 30	W	Shore, north of salt beds.
666-37	12	Puerto Escondido, Lower California	25 53 55 N	111 16 30	W	Off Carmen Island. 180 fathoms. Mud.
667-37	12	Puerto Escondido, off Carmen Island, Lower California	25 51 50 N	111 15 40	W	60 fathoms. Mud.
668-37	12	Puerto Escondido, Lower California	25 48 50 N	111 18	W	20 fathoms. Mud, sand.
669-37	12	Off Puerto Escondido, Lower California	25 47 05 N	111 16 15	W	34 fathoms. Sand.
670-37	12	Puerto Escondido, Lower California	25 50 05 N	111 19	W	Shore. Lagoon entrance.
671-37	13	Puerto Escondido, Lower California	25 50 05 N	111 19	W	1-2 fathoms. Netting from skiff.
672-37	13	Puerto Escondido, Lower California	25 50 05 N	111 19	W	Fresh water stream, inland.
673-37	14	Salinas Bay, Carmen Island, Gulf of California	25 57 55 N	111 07 45	W	20 fathoms. Shell.
674-37	14	Off Pulpito Point, Lower California	26 30	N 111 27 10	W	14 fathoms. Sand.

Station	Date	Locality	Bearings	Remarks
Mar. 1937				
675-37	15	Off Pulpito Point, Lower California	26 28 45 N 111 26 45 W	55 fathoms. Sand, small rock.
676-37	15	Ildefonso Island, Gulf of California	26 37 55 N 111 26 35 W	South shore. Rock.
677-37	15	Off Ildefonso Island, Gulf of California	26 37 20 N 111 29 10 W	50 fathoms. Sand, shell.
678-37	15	Off Ildefonso Island, Gulf of California	26 38 55 N 111 30 25 W	190 fathoms. Mud.
679-37	15	Outside of Concepción Bay, Lower California	26 54 30 N 111 52 W	30 fathoms. Mud, shell.
680-37	15	Off Concepción Bay, Lower California	26 54 15 N 111 51 10 W	20 fathoms. Shell, oyster spat.
681-37	15	Off Concepción Bay, Lower California	26 52 50 N 111 51 30 W	3 fathoms. Shells, hermit crabs.
682-37	15	Off Concepción Bay, Lower California	26 53 30 N 111 52 25 W	12 fathoms. <i>Strombus</i> shells.
683-37	15	Off Concepción Bay, Lower California	26 53 50 N 111 52 25 W	12 fathoms. Coralline.
684-37	15	West Cove, Concepción Bay, Lower California	26 44 40 N 111 54 W	Shore. Heliasters.
685-37	15	Concepción Bay, Lower California	26 43 25 N 111 52 05 W	Anchorage. Electric Light.
686-37	16	Concepción Bay, Lower California	26 41 40 N 111 51 05 W	12 fathoms. Mud, sand.
687-37	16	Concepción Bay, Lower California	26 43 25 N 111 54 05 W	5 fathoms. Sand.
688-37	16	Concepción Bay, Lower California	26 41 40 N 111 51 05 W	12 fathoms. Mud, sand.
689-37	16	Coyote Bay, Concepción Bay, Lower California	26 44 40 N 111 54 W	Shore. Sand, rock.
690-37	16	Island in Concepción Bay, Lower California	26 44 40 N 111 54 W	Shore. Land plants.
691-37	16	Concepción Bay, Lower California	26 44 40 N 111 54 W	2 fathoms. Dipnetting.
691a-37	16	Concepción Bay, Lower California	26 44 40 N 111 54 W	3-4 fathoms. Lobster pots.
692-37	17	South of Tortuga Island, Gulf of California	27 25 30 N 111 53 25 W	18 fathoms. Sand.
693-37	17	South of Tortuga Island, Gulf of California	27 23 15 N 111 53 W	55 fathoms. Sand.
694-37	17	Tortuga Island, Gulf of California	27 26 N 111 53 40 W	Inland. Land plants.
695-37	17	South of Tortuga Island, Gulf of California	27 24 50 N 111 53 35 W	Anchorage. Electric Light.
696-37	18	South of Tortuga Island, Gulf of California	27 24 N 111 53 25 W	45 fathoms. Sand.
697-37	18	South of Tortuga Island, Gulf of California	27 22 45 N 111 53 25 W	75 fathoms. Sand.

Station	Date	Locality	Bearings						Remarks
Mar. 1937									
698-37	18	Tortuga Island, Gulf of California	27 26	N	111 53	40	W	Shore, inland. Land plants.	
699-37	19	Angeles Channel, Lower California	28 57	35	N	113 29	30	W	30 fathoms. Sand.
700-37	19	Angeles Bay, Lower California	28 53	40	N	113 32	45	W	Shore. Shingle.
701-37	20	Angeles Bay, Lower California	28 37	N	113 30	45	W	32 fathoms. Sand, shell.	
702-37	20	Angeles Bay, Lower California	28 55	40	N	113 32	25	W	18 fathoms. Coarse sand.
703-37	20	Angeles Bay, Lower California	28 56	45	N	113 34	W	North shore. Rock.	
704-37	20	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 33	04	N	113 33	25	W	20 fathoms. Coralline.
705-37	20	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 32	48	N	113 33	35	W	15 fathoms. Coarse sand.
706-37	20	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 33	06	N	113 33	42	W	8-10 fathoms. Ulva.
707-37	20	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 32	47	N	113 34	35	W	Shore. Rock.
708-37	21	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 34	25	N	113 32	35	W	60 fathoms. Sand.
709-37	21	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 36	25	N	113 29	30	W	90 fathoms. Mud.
710-37	21	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 39	N	113 28	25	W	110 fathoms. Mud.	
711-37	21	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 33	45	N	113 32	24	W	40 fathoms. Sand.
712-37	21	Puerto Refugio, Angel de la Guardia Island, Gulf of California	29 34	35	N	113 29	30	W	50-75 fathoms. Sand.
713-37	21	Puerto Refugio, Angel de la Guardia Island, California	29 32	47	N	113 34	35	W	Shore. Rock.

Station	Date	Locality	Bearings	Remarks
Mar. 1937				
714-37	23	Off Willard Point, Gonzaga Bay, Lower California	29 49 25 N 114 20 40 W	16-30 fathoms. Rock, mud.
715-37	23	Willard Point, Gonzaga Bay, Lower California	29 48 25 N 114 23 30 W	Shore. Land plants.
716-37	23	Off Willard Point, Gonzaga Bay, Lower California	29 48 N 114 23 05 W	2-3 fathoms. Sand. <i>Encope</i> .
717-37	23	Off San Luis Island, Gulf of California	29 56 30 N 114 25 35 W	10 fathoms. Sand, <i>Pectens</i> .
718-37	24	Consag Rock, Gulf of California	31 07 N 114 27 35 W	Shore. Rock.
719-37	24	Off Consag Rock, Gulf of California	30 53 N 114 28 45 W	10-25 fathoms. Basket stars.
Gulf of California—East Coast				
720-37	24	Rocky Point, Sonora, Mexico	31 19 25 N 113 41 40 W	6 fathoms. Rock, basket stars.
721-37	24	Rocky Point, Sonora, Mexico	31 19 25 N 113 41 40 W	8-12 fathoms. Sand.
722-37	25	Off Georges Island, Gulf of California	30 59 50 N 113 16 W	10 fathoms. Sand, rock.
723-37	25	Georges Island, Gulf of California	31 00 40 N 113 16 05 W	Shore. Rock.
724-37	26	North of Lobos Point, Sonora, Mexico	29 54 25 N 112 41 W	Shore. Rock.
725-37	26	North of Lobos Point, Sonora, Mexico	29 55 N 112 46 50 W	10 fathoms. Sand.
726-37	26	North of Lobos Point, Sonora, Mexico	29 55 45 N 112 47 40 W	25 fathoms. Sand.
727-37	26	Patos Island, Gulf of California	29 16 N 112 28 30 W	Shore. Plants, insects.
728-37	27	South end of San Esteban Island, Gulf of California	28 39 40 N 112 35 35 W	Shore. Rock.
729-37	27	South of San Esteban Island, Gulf of California	28 48 25 N 112 34 10 W	35 fathoms. Shell.
730-37	27	South end of Tiburon Island, Gulf of California	28 45 35 N 112 17 45 W	Inland.
731-37	28	South of Tiburon Island, Gulf of California	28 44 45 N 112 18 20 W	7 fathoms. Sand.
732-37	28	South of Tiburon Island, Gulf of California	28 44 45 N 112 18 20 W	12 fathoms. Sand, coralline.
733-37	29	Off San Pedro Nolasco Island, Gulf of California	27 58 25 N 111 23 25 W	45 fathoms. Rock, sand.

Station	Date	Locality	Bearings	Remarks
Mar. 1937				
734-37	29	Off San Pedro Nolasco Island, Gulf of California	27 59 30 N 111 24 25 W	75 fathoms. Sand.
735-37	29	Off San Pedro Nolasco Island, Gulf of California	28 00 20 N 111 24 40 W	110 fathoms. Sand.
736-37	29	San Pedro Nolasco Island, Gulf of California	27 58 N 111 24 20 W	Shore. Land plants.
737-37	30	Ensenada de San Francisco, Sonora, Mexico	27 55 45 N 111 03 W	15 fathoms. Sand.
738-37	30	Ensenada de San Francisco, Sonora, Mexico	27 53 20 N 111 02 30 W	30 fathoms. Shell.
739-37	30	Ensenada de San Francisco, Sonora, Mexico	27 57 05 N 111 03 20 W	Shore. Shingle.
740-37	31	San Ignacio Bay, Sinaloa, Mexico	25 34 10 N 109 14 40 W	3-5 fathoms. Sand. <i>Luidia</i> .
741-37	31	Farallon, San Ignacio Bay, Sinaloa, Mexico	25 25 50 N 109 24 20 W	Shore. Rock.
742-37	31	San Ignacio Bay, Sinaloa, Mexico	25 23 N 109 15 10 W	30-50 fathoms. Shell.
743-37	31	San Ignacio Bay, Sinaloa, Mexico	25 16 20 N 109 18 W	90 fathoms. Mud.
Apr. 1937				
744-37	1	Near Point Piaxtla, Sinaloa, Mexico	28 39 05 N 106 50 55 W	6-8 fathoms. Sand, rock, mud.
745-37	2	Isabel Island, Mexico	21 54 10 N 105 53 05 W	10-18 fathoms. Coralline, nullipores.
746-37	2	Isabel Island, Mexico	21 50 30 N 105 53 35 W	Shore. Rock.
747-37	2	Isabel Island, Mexico	21 54 10 N 105 53 15 W	10-18 fathoms. Coralline.
748-37	2	Isabel Island, Mexico	21 52 20 N 105 51 30 W	Anchorage. Electric Light.
749-37	3	Isabel Island, Mexico	21 51 30 N 105 33 35 W	Rocky reef. Low tide.
Gulf of California—West Coast				
750-37	4	Outer Gorda Bank, Gulf of California	23 00 25 N 109 28 35 W	60 fathoms. Fine gray sand.
751-37	4	Off Los Frailes, Lower California	23 22 45 N 109 24 15 W	5-15 fathoms. Sand, algae.
752-37	4	Fraile Bay, Lower California	23 23 N 109 24 30 W	Shore. Land plants.

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>	<i>Remarks</i>
ALLAN HANCOCK SUMMER CRUISE OF 1937				
Mexico				
West Coast of Lower California				
July 1937				
753-37	10	East side of Cedros Island, Lower California	28 07 N 115 11 25 W	Shore. Rock, sand.
754-37	11	Abrejos Point, Lower California	26 44 30 N 113 36 20 W	Pond Lagoon, islands in lagoon.
755-37	12	East side of Cedros Island, Lower California	28 07 N 115 11 25 W	Sand spit and mainland shore.
756-37	14	Middle San Benito Island, off Lower California	28 19 15 N 115 34 W	Shore. Rock, beach.
757-37	15	West San Benito Island, off Lower California	28 18 20 N 115 34 20 W	Shore. Rock.
757a-37	15	East San Benito Island, off Lower California	28 18 05 N 115 32 15 W	Shore. Beach, rock.
758-37	18	Guadalupe Island, off Lower California	27 06 N 118 15 W	Shore. Elephant seal beach.
759-37	19	Guadalupe Island, Outer Island, off Lower California	28 43 N 118 15 W	Shore. Rock, beach.
ALLAN HANCOCK PACIFIC EXPEDITION OF 1938				
Mexico				
Jan. 1938				
760-38	5	Santa Maria Bay, Lower California	24 42 20 N 112 14 10 W	32 fathoms. Rock, shell.
761-38	6	Southwest of Inner Gorda Bank, Gulf of California	23 01 N 109 33 15 W	345 fathoms. Mud.
762-38	6	Inner Gorda Bank, Gulf of California	23 02 10 N 109 30 50 W	60 fathoms. Fine gray sand.
763-38	7	Off Black Rock, Cape Corrientes, Mexico	19 57 N 105 32 W	5-10 fathoms. Broken shell.
764-38	8	North of White Friars, Mexico	17 31 20 N 101 29 W	15-20 fathoms. Fine sand.
765-38	9	Chacahua Bay, Mexico	15 57 05 N 97 38 W	5-10 fathoms. Nullipores.
766-38	9	Chacahua Bay, Mexico	15 57 45 N 97 41 30 W	Shore. Rock, <i>Helicosters</i> .
767-38	9	Chacahua Bay, Mexico	15 55 N 97 41 W	40-50 fathoms. Mud.
768-38	10	Off Chiapas, Mexico, Gulf of Tehuantepec	15 41 N 94 08 W	35 fathoms. Mud, shrimp.

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Jan. 1938						
Guatemala						
769-38	11	Off San Jose Point, Guatemala	13 46	N	91 14	W 20 fathoms. Mud.
770a-38	11	Off San Jose Point, Guatemala	13 52	30 N	91 10	30 W 11 fathoms. Black sand.
770b-38	11	Off San Jose Point, Guatemala	13 53	40 N	91 10	30 W 7½ fathoms. Black sand.
770c-38	11	Off San Jose Point, Guatemala	13 53	40 N	91 11	20 W 7 fathoms. Black sand, shell.
770d-38	11	Off San Jose Point, Guatemala	13 53	40 N	91 09	40 W 7 fathoms. Black sand, mud.
771-38	11	Off San Jose Point, Guatemala	13 26	N	90 57	W 56 fathoms. Shell, shrimp.
Costa Rica						
772-38	13	Off Nuez Island, Cocos Island, Costa Rica	5 34	N	86 59	20 W 31-50 fathoms. Coralline.
773-38	13	Off Nuez Island, Cocos Island, Costa Rica	5 34	N	86 59	20 W 31-50 fathoms. Coralline.
774-38	13	Chatham Bay, Cocos Island, Costa Rica	5 32	56 N	86 59	18 W Shore. Rock.
775-38	13	Wafer Bay, Cocos Island, Costa Rica	5 32	40 N	86 59	50 W Freshwater stream.
776-38	13	Wafer Bay, Cocos Island, Costa Rica	5 32	45 N	87 00	10 W Tide pools.
777-38	13	Wafer Bay, Cocos Island, Costa Rica	5 32	40 N	86 59	50 W Brackish water.
778-38	14	Chatham Bay, Cocos Island, Costa Rica	5 32	56 N	86 59	18 W Shore. Rock.
779-38	14	Off Nuez Island, Cocos Island, Costa Rica	5 34	N	86 59	20 W 30-50 fathoms. Rock, coral, coralline.
780a-38	14	Chatham Bay, Cocos Island, Costa Rica	5 33	50 N	86 59	05 W 40-46 fathoms. Coarse white sand.
780b-38	14	Chatham Bay, Cocos Island, Costa Rica	5 33	50 N	86 58	45 W 47 fathoms. Coarse white sand.
781-38	14	Wafer Bay, Cocos Island, Costa Rica	5 32	45 N	87 00	10 W Shore. Shingle.
Galapagos Islands						
782-38	16	Darwin Bay, Tower Island	0 19	18 N	89 57	14 W Shore. Rock.
783-38	16	Darwin Bay, Tower Island	0 19	10 N	89 56	44 W 40-70 fathoms. White sand, rock.
784-38	17	Darwin Bay, Tower Island	0 19	22 N	89 57	02 W Shore. Rock.
785-38	17	Darwin Bay, Tower Island	0 19	17 N	89 56	52 W 20-40 fathoms. Sand, coral.

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Jan. 1938						
786-38	18	Northeast of Indefatigable Island	0 30 S	89 55 30 W	392 fathoms. Sand.	
787-38	18	Stephens Bay, Chatham Island	0 51 35 S	90 02 W	Anchorage. Electric Light.	
788-38	19	Southeast of Daphne Major Island	0 27 S	90 21 50 W	55 fathoms. Coral, shell.	
789-38	19	South Seymour Island	0 24 20 S	90 20 W	West shore. Rock, sand.	
790-38	19	Velero Bay, South Seymour Island	0 24 15 S	90 20 10 W	10-20 fathoms. Sand, rock.	
791-38	19	Off South Seymour Island	0 24 20 S	90 20 W	Anchorage. Electric Light.	
792-38	20	Off Daphne Minor Island	0 24 30 S	90 22 40 W	70-80 fathoms. Mud.	
793-38	20	South Seymour Island	0 24 20 S	90 20 W	Shore. Rock, sand.	
793a-38	20	North Seymour Island	0 24 20 S	90 19 25 W	Shore. Rock.	
794-38	20	Sullivan Bay, James Island	0 16 48 S	90 34 58 W	Anchorage. Electric Light.	
795-38	21	Sullivan Bay, James Island	0 16 12 S	90 34 50 W	36-40 fathoms. Rock, sand.	
795a-38	21	Sullivan Bay, James Island.	0 16 08 S	90 34 35 W	50-60 fathoms. Volcanic sand.	
796-38	21	Sullivan Bay, James Island.	0 17 S	90 35 13 W	Shore. Rock.	
797-38	21	Off Jervis Island	0 26 S	90 40 W	145 fathoms. Water haul.	
798-38	21	Cartago Bay, Albemarle Island	0 35 58 S	90 55 34 W	Anchorage. Electric Light.	
799-38	22	Cartago Bay, Albemarle Island	0 35 42 S	90 58 38 W	15-18 fathoms. Sand.	
800-38	22	Cartago Bay, Albemarle Island	0 34 10 S	90 57 55 W	North shore. Rock.	
801-38	22	Cartago Bay, Albemarle Island	0 35 58 S	90 55 24 W	Anchorage. Electric Light.	
802-38	23	Northwest of Charles Island	1 09 S	90 35 W	250 fathoms. Sand, shell.	
803-38	23	Black Beach, Charles Island	1 16 36 S	90 29 42 W	Shore. Rock.	
804-38	23	Onslow Island, north of Charles Island	1 14 20 S	90 26 07 W	Crater. <i>Pavona</i> coral.	
805-38	23	Black Beach, Charles Island	1 16 46 S	90 29 56 W	Anchorage. Electric Light.	
806-38	24	Black Beach, Charles Island	1 16 26 S	90 29 42 W	Shore. Rock.	
807-38	24	Academy Bay, Indefatigable Island	0 46 16 S	90 19 38 W	10-25 fathoms. Sand.	

Station	Date	Locality	Bearings			Remarks
Jan. 1938						
808-38	25	Academy Bay, Indefatigable Island	0 45 14 S	90 20 11 W	Shore. Rock.	
809-38	25	Academy Bay, Indefatigable Island	0 45 55 S	90 20 45 W	Anchorage. Electric Light.	
810a-38	26	Off Barrington Island	0 47 S	90 02 W	48 fathoms. Rock.	
810b-38	26	Off Barrington Island	0 43 S	90 01 W	73 fathoms. Sand.	
810c-38	26	Off Barrington Island	0 43 S	89 59 30 W	73 fathoms. Sand.	
811-38	26	Barrington Island.	0 51 35 S	90 02 W	Shore. <i>Pocillopora</i> coral.	
811a-38	26	Barrington Island	0 51 35 S	90 02 W	Shore. Coral (<i>Pavonia?</i>).	
812-38	27	Freshwater Bay, Chatham Island	0 56 20 S	89 29 25 W	Inland.	
812a-38	27	Off Freshwater Bay, Chatham Island	1 01 S	89 30 W	400 fathoms. Coarse sand.	
813-38	27	Gardner Bay, Hood Island	1 22 15 S	89 39 40 W	Anchorage. Electric Light.	
814-38	28	North of Hood Island	1 21 55 S	90 40 05 W	20-40 fathoms. Shell.	
815-38	28	East side, Hood Island	1 22 20 S	89 39 37 W	Shore. Rock. <i>Grapsus</i> .	
816-38	29	North of Hood Island	1 19 15 S	89 39 45 W	50-100 fathoms. Rock, sand.	
817-38	29	North of Hood Island	1 20 S	89 40 W	140-160 fathoms. Sand.	
818-38	30	South of Hood Island	1 33 S	89 34 30 W	300 fathoms. Sand, rock.	
Feb. 1938						
819-38	4	Callao, Peru	12 03 50 S	77 10 W	Breakwater. Rock.	
820-38	6	San Nicolas Bay, Peru	15 14 05 S	75 14 45 W	10-25 fathoms. Mud.	
821-38	6	San Nicolas Bay, Peru	15 14 13 S	75 15 30 W	Shore. Rock.	
822-38	6	San Juan Bay, Peru	15 20 06 S	75 09 34 W	Anchorage. Electric Light.	
823-38	7	San Juan Bay, Peru	15 20 55 S	75 11 30 W	30-40 fathoms. Mud.	
824-38	7	San Juan Bay, Peru	15 20 30 S	75 10 07 W	15-20 fathoms. Sand, shell.	
825-38	7	San Juan Bay, Peru	15 20 40 S	75 10 18 W	Shore. Rock.	
826-38	7	San Juan Bay, Peru	15 20 12 S	75 10 52 W	20-30 fathoms. Sand, shell.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Feb. 1938						
827-38	7	San Juan Bay, Peru	15 20 06 S	75 09 34 W	W	Anchorage. Electric Light.
828-38	8	San Juan Bay, Peru	15 20 43 S	75 09 20 W	W	Shore. Rock.
829-38	9	Independencia Bay, Peru	14 14 40 S	76 09 07 W	W	10 fathoms. Shell, sand, algae.
830-38	9	Independencia Bay, Peru	14 14 08 S	76 08 30 W	W	Shore. Rock.
831-38	9	Independencia Bay, Peru	14 14 08 S	76 08 30 W	W	Shore. Rock.
832-38	10	Independencia Bay, Peru	14 14 S	76 08 W	W	10 fathoms. Sand, shell, algae.
833-38	10	Off Independencia Bay, Peru	14 13 S	76 13 W	W	8 fathoms. Sand, shell.
834-38	10	Off Independencia Bay, Peru	14 16 S	76 10 W	W	21 fathoms. Mud, worms.
835-38	10	Independencia Bay, Peru	14 17 30 S	76 09 W	W	18 fathoms. Rock, sand, shell.
835a-38	10	Trujillana Channel, Independencia Bay, Peru	14 13 S	76 16 W	W	15 fathoms. Mud.
836-38	10	North Chincha Island, Peru	13 37 40 S	76 24 15 W	W	Anchorage. Electric Light.
837-38	11	North Chincha Island, Peru	13 37 40 S	76 24 15 W	W	Shore. Rock.
838-38	11	North Chincha Island, Peru	13 37 40 S	76 24 15 W	W	10 fathoms. Mud. Nematodes.
839-38	11	West of Chincha Islands, Peru	13 37 30 S	76 41 30 W	W	100 fathoms. Mud.
840-38	11	West of Chincha Islands, Peru	13 35 S	76 50 W	W	Surface (drifting). Electric Light.
841a-38	12	Off Hornigas de Afuera Islands, Peru	11 57 S	77 47 W	W	45 fathoms. Mud, shell.
841b-38	12	Off Hornigas de Afuera Islands, Peru	11 58 S	77 47 W	W	45 fathoms. Mud, shell.
842-38	13	Huafape (Guafape) Island, Peru.	8 34 S	78 57 45 W	W	Shore. Rock (from skiff).
843-38	14	Off Lobos de Afuera Islands, Peru	6 53 50 S	80 43 30 W	W	25-30 fathoms. Sand.
844-38	14	Lobos de Afuera Islands, Peru	6 55 40 S	80 43 50 W	W	Shore. Rock.
845-38	15	Sechura Bay, Peru	5 39 30 S	81 01 W	W	9½ fathoms. Coarse sand, worm tubes, red algae.
846-38	15	Sechura Bay, Peru	5 27 30 S	81 01 W	W	6 fathoms. Sand and finely broken shell.
847-38	16	9½ miles southwest of Zorritos Light, Peru	3 45 50 S	79 47 W	W	Shore. Rock.

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Feb. 1938						
848-38	23	Cape San Francisco, Ecuador	Ecuador	0 39 30 N	80 06 30 W	Shore. Rock.
849-38	23	San Francisco Bay, Ecuador		0 40 20 N	80 06 35 W	Freshwater stream.
850-38	23	Off Cape San Francisco, Ecuador		0 37 10 N	80 00 30 W	15 fathoms. Mud, rock.
Colombia						
851-38	24	North of Gorgona Island, Colombia		3 01 25 N	78 10 W	10-20 fathoms. Mud, rock.
852-38	24	Watering Bay, Gorgona Island, Colombia		2 56 10 N	78 12 W	Freshwater stream.
853-38	24	Gorgona Island, Colombia		3 00 30 N	78 11 45 W	Shore. Rock.
854-38	24	North of Gorgona Island, Colombia		3 01 N	78 10 55 W	40-60 fathoms. Mud, rock.
855-38	24	Off north end of Gorgona Island, Colombia		3 01 25 N	78 10 W	10-20 fathoms. Rock, shell.
856-38	25	Port Utria, Colombia		5 59 10 N	77 21 W	15-30 fathoms. Mud, sand.
857-38	25	Port Utria, Colombia		6 00 27 N	77 20 30 W	Freshwater stream.
858-38	25	Port Utria, Colombia		5 59 10 N	77 21 20 W	Shore. Rock.
859-38	25	Port Utria, Colombia		5 59 10 N	77 21 20 W	Shallow water. Coral.
Panama						
860-38	28	San Francisco Bay, 8 miles east of Panama City, Panama		8 59 25 N	79 31 45 W	Shore. Rock.
Mar. 1938						
861-38	1	Bahia Honda, Panama		7 44 25 N	81 32 45 W	Shore. Rock.
862-38	1	Off Bahia Honda, Panama		7 43 30 N	81 34 15 W	30 fathoms. Mud.
863-38	1	Off Bahia Honda, Panama		7 45 35 N	81 35 35 W	30-50 fathoms. Rock, sand, mud.
864-38	1	Bahia Honda, Panama		7 44 35 N	81 31 40 W	Anchorage. Electric Light.
865-38	2	Secas Islands, Panama		7 57 55 N	82 02 W	3 fathoms. Mud, sand.
866-38	2	Secas Islands, Panama		7 57 10 N	82 00 45 W	Shore. Rock.
867-38	2	Secas Islands, Panama		7 57 10 N	82 00 45 W	Shallow water. Coral.

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Mar. 1938						
868-38	6	Off Acapulco, Mexico	Mexico 16 39 45 N	99 42	W	11 fathoms. Fine sand.
869-38	8	Isabel Island, Mexico	21 51 30 N	105 53 35	W	Shore. Rock.
870-38	8	Isabel Island, Mexico	21 54 10 N	105 58 15	W	10-15 fathoms. Coralline, Gorgonids.
871-38	11	4½ miles east of South Coronado Island, Mexico	32 24 N	117 09 15	W	14 fathoms. Sand, kelp.
ALLAN HANCOCK SUMMER CRUISES OF 1938						
July 1938						
872-38	23	Off Long Point, Santa Catalina Island	California 33 24 35 N	118 21 15	W	Rock, brachiopods, 50 fathoms.
Aug. 1938						
873-38	1	East of Anacapa Island, California	34 01 N	119 19	W	50 fathoms. Broken shell.
874-38	1	Northeast of Anacapa Island	34 01 30 N	119 21	W	45 fathoms. Shell.
875-38	1	Northeast of Anacapa Island	34 02 30 N	119 20	W	50 fathoms. Rock, sponges.
876-38	1	Northeast of Anacapa Island	34 03 N	119 21	W	45 fathoms. Rock, sea urchins.
877-38	1	Anacapa Island	34 00 20 N	119 24 25	W	North shore. Rock.
878-38	1	North of Anacapa Island	34 00 45 N	119 24 30	W	15 fathoms. Sand.
879-38	2	Off Prisoners Harbor, Santa Cruz Island	34 03 N	119 40 05	W	50 fathoms. Gray sand.
880-38	2	Off Bechers Bay, Santa Rosa Island	34 02 N	120 01	W	16 fathoms. Sand, shell.
881-38	2	Bechers Bay, Santa Rosa Island	34 01 N	120 02	W	10 fathoms. Sand.
882-38	3	Off Tyler Bight, San Miguel Island	34 01 20 N	120 24 25	W	15 fathoms. Sand, shell.
883-38	3	Tyler Bight, San Miguel Island	34 01 55 N	120 25 05	W	Shore. Rock.
884-38	4	Point San Luis, California	35 09 30 N	120 45 40	W	Lobster traps (<i>Cancers</i>).
885-38	4	San Luis Obispo Bay, California	35 09 15 N	120 44 15	W	8-14 fathoms. Rock.
886-38	5	South of Pillar Point, Halfmoon Bay, California	37 28 30 N	122 29 15	W	16 fathoms. Coarse gravel.
887-38	7	Northeast of Middle Farallon Island	37 48 N	122 59	W	37 fathoms. Sand.

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Aug. 1938						
888-38	8	Near the mouth of Salinas River, Monterey Bay, California	36 44 30 N	121 49 30 W	10-13 fathoms. Sand.	
889-38	8	Off Point Pinos, Monterey Bay, California	36 38 45 N	121 56 W	36 fathoms. Broken shell.	
890-38	8	Off Point Pinos, Monterey Bay, California	36 39 50 N	121 58 W	49-54 fathoms. Rock, crinoids, brittle stars.	
891-38	8	Southwest of Point Pinos, California	36 37 25 N	121 58 25 W	26 fathoms. Rock, sponges.	
892-38	9	In and around Carmel Bay, California	36 33 N	121 57 40 W	10-40 fathoms. Rock, mud.	
893-38	10	Off Point Arguello, California	34 34 20 N	120 40 W	15-30 fathoms. Sand, algae.	
894-38	10	South of San Miguel Island	34 01 N	120 24 W	5-15 fathoms. Rock with kelp.	
895-38	12	East of Santa Barbara Island	33 29 N	119 01 W	Shoal to 40 fathoms. Sand.	
Sept. 1938						
896a-38	12	South of San Miguel Island, off Point Bennett	34 00 50 N	120 26 35 W	34 fathoms. Sand, shell.	
896b-38	12	South of San Miguel Island	34 00 45 N	120 20 W	12-19 fathoms. Gray sand.	
897-38	13	Off Point Santa Barbara, California	34 22 30 N	119 42 30 W	33 fathoms. Mud.	
898-38	14	North of Santa Cruz Island	34 06 30 N	119 53 W	53 fathoms. Green sand.	
ALLAN HANCOCK WINTER CRUISES OF 1938-39						
Nov. 1938						
California						
899-38	17	Off Long Point, Santa Catalina Island	33 24 15 N	118 20 45 W	90-110 fathoms. Sand, gravel.	
900-38	18	Off Long Point, Santa Catalina Island	33 24 35 N	118 21 15 W	40 fathoms. Rock, brachiopods, sponges.	
901-38	20	Point Fermin, California	33 42 30 N	118 17 10 W	Shore. Rock and rocks in sand.	
902-38	21	Portuguese Bend, California	33 44 20 N	118 22 20 W	Shore. Rock, sand, tide pools.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Dec. 1938						
903-38	5	Anaheim Slough, near Long Beach, California	33 43 15 N	118 03 45 W	Shore. Sand, mud, <i>Zostera</i>	
904-38	6	Laguna Beach and Pier, California	33 32 N	117 46 50 W	Shore. Rock, sand, pier.	
905-38	7	Anaheim Slough, near Long Beach, California	33 43 15 N	118 03 45 W	Shore. Sand, mud, <i>Zostera</i>	
906-38	8	Portuguese Bend, California	33 44 20 N	118 22 20 W	Shore. Rock, reefs.	
907-38	9	Bluff Cove, south of Redondo, California	33 47 45 N	118 24 25 W	Shore. Rock.	
Jan. 1939						
908-39	28	Off White Cove, Santa Catalina Island	33 23 45 N	118 20 15 W	40-80 fathoms. Rock, brachiopods.	
909-39	29	Off Emerald Bay, Santa Catalina Island	33 28 55 N	118 30 05 W	65-90 fathoms. Mud.	
Feb. 1939						
910-39	12	Portuguese Bend, California	33 44 20 N	118 22 20 W	Shore. Rock, reefs.	
911-39	18	Off Wilson Cove, San Clemente Island	33 00 20 N	118 33 10 W	60-85 fathoms. Sand, broken shell.	
912-39	18	Pyramid Cove, San Clemente Island	32 49 18 N	118 23 42 W	Shore. Rock, sand.	
913-39	18	Off Pyramid Cove, San Clemente Island	32 48 30 N	118 23 42 W	35-46 fathoms. Fine gray sand.	
914a-39	19	Off Pyramid Cove, San Clemente Island	32 47 10 N	118 22 10 W	78-110 fathoms. Sand, mud.	
914b-39	19	Off Pyramid Cove, San Clemente Island	32 46 30 N	118 21 15 W	214 fathoms. Mud.	
914c-39	19	Pyramid Cove, San Clemente Island	32 48 30 N	118 23 42 W	Shore. Rock, sand.	
ALLAN HANCOCK PACIFIC EXPEDITION OF 1939						
Mexico						
Mar. 1939						
915-39	16	Sulphur Bay, Clarion Island	18 20 45 N	114 44 15 W	5 fathoms. Coralline.	
916-39	16	Sulphur Bay, Clarion Island	18 20 50 N	114 44 10 W	Shore. Shingle.	
917a-39	16	Sulphur Bay, Clarion Island	18 20 05 N	114 44 50 W	28-35 fathoms. Gray sand, coralline.	
917b-39	16	Off Sulphur Bay, Clarion Island	18 19 50 N	114 43 55 W	30-45 fathoms. Gray sand, coralline.	
918a-39	16	Off Sulphur Bay, Clarion Island	18 19 25 N	114 44 50 W	50-60 fathoms. Shell, coralline.	
918b-39	16	Off Sulphur Bay, Clarion Island	18 19 45 N	114 44 35 W	45-50 fathoms. Shell, coralline.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Mar. 1939						
919-39	17	Off Sulphur Bay, Clarion Island	18 20 13 N	114 44 51 W	25-26 fathoms. Sand, coralline.	
920-39	17	Sulphur Bay, Clarion Island	18 20 50 N	114 44 30 W	Shore. Tide pools.	
921a-39	17	North of Clarion Island	18 23 30 N	114 45 55 W	30-35 fathoms. Nullipores.	
921b-39	17	North of Clarion Island	18 24 N	114 44 15 W	40-50 fathoms. Nullipores.	
921c-39	17	North of Clarion Island	18 23 45 N	114 44 50 W	35-40 fathoms. Nullipores.	
921d-39	17	North of Clarion Island	18 24 30 N	114 43 45 W	50-56 fathoms. Nullipores.	
922-39	18	Braithwaite Bay, Socorro Island	18 42 20 N	110 56 15 W	10-20 fathoms. Sand, red mud.	
923-39	18	Braithwaite Bay, Socorro Island	18 42 45 N	110 56 50 W	Shore. Rock, large shingle.	
924-39	18	Off Braithwaite Bay, Socorro Island	18 41 52 N	110 55 20 W	17-46 fathoms. Sand, coralline, sea pens.	
925-39	18	Off Braithwaite Bay, Socorro Island	18 40 42 N	110 55 58 W	70-75 fathoms. Rock, shell.	
926-39	18	West of Cape Rule, Socorro Island	18 42 10 N	110 58 37 W	41-45 fathoms. Shell, sea pens.	
927-39	20	Chacahua Bay, Mexico	15 57 20 N	97 39 45 W	10-15 fathoms. Mud.	
928-39	20	Chacahua Bay, Mexico	15 58 N	97 41 40 W	Lagoon. Mud.	
Guatemala						
929-39	23	Near San Jose Light, Guatemala	13 54 35 N	91 03 40 W	2-5 fathoms. Fine sand.	
930-39	23	Off San Jose Light, Guatemala	13 52 35 N	91 01 02 W	12-13 fathoms. Fine black sand, mollusks.	
931-39	23	Off San Jose Light, Guatemala	13 45 25 N	90 54 20 W	23 fathoms. Gray sand, mollusks.	
932-39	23	Off San Jose Light, Guatemala	13 45 25 N	90 49 25 W	53-55 fathoms. Green mud, shell.	
Costa Rica						
933-39	24	Port Parker, Costa Rica	10 55 10 N	85 49 40 W	Shore. Sand beach and estuary.	
934-39	24	Port Parker, Costa Rica	10 57 35 N	85 49 W	3-8 fathoms. Sandy mud.	
935-39	24	Port Parker, Costa Rica	10 56 30 N	85 45 45 W	Anchorage. Electric Light.	

<i>Station</i>	<i>Date</i>	<i>Locality</i>	<i>Bearings</i>			<i>Remarks</i>
Mar. 1939						
936-39	25	Port Parker, Costa Rica	10 57 35 N	85 49 W	5-10 fathoms. Sandy mud.	
937-39	25	Port Parker, Costa Rica	10 56 N	85 48 35 W	Shore. Rocky point of island.	
938-39	25	Port Parker, Costa Rica	10 55 10 N	85 49 40 W	Shore. Sandy beach.	
939-39	26	Gulf of Dulce, Costa Rica	8 23 10 N	83 16 40 W	10-22 fathoms. Coarse sand.	
940-39	26	Gulf of Dulce, Costa Rica	8 24 30 N	83 17 05 W	Shore. Loose basaltic boulders.	
941-39	26	Gulf of Dulce, Costa Rica	8 24 20 N	83 13 40 W	19-48 fathoms. Mud and fine sand.	
942-39	26	Gulf of Dulce, Costa Rica	8 24 N	83 15 35 W	Anchorage. Electric Light.	
Panama						
943-39	27	3 miles south of Isla Ladronez, Panama	7 49 N	82 23 30 W	54 fathoms. Green mud.	
944-39	27	10 miles southwest of Secas Islands, Panama	7 51 10 N	82 12 05 W	30 fathoms. Gray sand.	
945-39	27	Secas Islands, Panama	7 58 02 N	82 00 30 W	25-26 fathoms. Gray, sandy mud.	
946-39	27	Bahia Honda, Panama	7 44 35 N	81 31 40 W	Anchorage. Electric Light.	
947-39	28	Bahia Honda, Panama	7 45 N	81 31 40 W	Shore. Sand, rock.	
948-39	28	Off Medidor Island, Bahia Honda, Panama	7 43 55 N	81 35 48 W	30-35 fathoms. Rock, mud, coralline.	
949-39	28	Bahia Honda, Panama	7 43 30 N	81 32 40 W	Shore. Rock.	
950-39	28	Bahia Honda, Panama	7 46 10 N	81 32 35 W	Shore. Mangroves.	
951-39	28	Bahia Honda, Panama	7 46 N	81 31 45 W	Beach seine.	
952-39	31	Panama City, Panama	8 57 15 N	79 30 W	Fish market. Fish.	
Apr. 1939						
953-39	1	San Francisco Bay, east of Panama City, Panama	8 59 25 N	79 31 45 W	Shore. Rock.	
954-39	1	Panama City, Panama	8 57 15 N	79 30 W	Fish market. Fish and squid.	
955-39	1	Madden Dam Road, Canal Zone	9 07 N	79 31 45 W	Freshwater stream in Bat Cave.	
956-39	1	Balboa, Canal Zone	8 57 N	79 34 W	Shore. Piling.	

At this point the *Velero III* digressed from Pacific exploration to numbers, beginning with A1-39, was applied to Atlantic stations, spend one month in Caribbean waters. Since a new set of station the Pacific station numbers continue without interruption.

Station	Date	Locality	Bearings			Remarks
May 1939						
957-39	2	Taboga Island, Panama	8 47 35 N	79 33 15 W	Shore. Rock, tide pools.	
958-39	2	Taboga Island, Panama	8 47 35 N	79 33 15 W	Shallow water. <i>Pocillopora</i> coral.	
959-39	2	Taboga Island, Panama	8 48 N	79 30 W	2-5 fathoms. Mud, sand.	
960-39	2	Taboga Island, Panama	8 46 40 N	79 32 10 W	2-5 fathoms. Sand, coralline.	
961-39	2	Taboga Island, Panama	8 46 40 N	79 33 15 W	Shore. Lava rock.	
Nicaragua						
962-39	4	11 miles northwest of Corinto, Nicaragua	12 35 10 N	87 20 30 W	1-3 fathoms. Sand, dead leaves.	
Mexico						
963-39	7	North of White Friars, Mexico	17 31 30 N	101 29 25 W	20-25 fathoms. Hard sand.	
963a-39	7	White Friars, Mexico	17 31 25 N	101 29 25 W	Shore. Algae.	
964-39	8	Tenacatita Bay, Mexico	19 18 N	104 50 W	2-8 fathoms. Mud.	
965-39	8	Tenacatita Bay, Mexico	19 17 17 N	104 48 40 W	8-15 fathoms. Shell, sand.	
966-39	8	Tenacatita Bay, Mexico	19 18 N	104 51 35 W	Lagoon. Seine.	
967-39	8	Tenacatita Bay, Mexico	19 16 50 N	104 48 27 W	Shore at village. Rock, coarse sand.	
968-39	8	Tenacatita Bay, Mexico	19 16 50 N	104 48 27 W	Shore. Brackish water (Shrimps).	
969-39	8	Tenacatita Bay, Mexico	19 18 N	104 51 35 W	Shore. Estuary, mangrove roots.	
970-39	9	Magdalena Island, Tres Marias Islands, Mexico	21 25 40 N	106 21 10 W	13 fathoms. Coralline, algae.	
971-39	9	Magdalena Island, Tres Marias Islands, Mexico	21 27 N	106 22 30 W	3-5 fathoms. Ulva.	
972-39	9	Magdalena Island, Tres Marias Islands, Mexico	21 26 N	106 23 20 W	Shore. Rock.	
973-39	9	Isabel Island, Mexico	21 51 30 N	105 53 35 W	Shore. Rock.	
974-39	9	Off Isabel Island, Mexico	21 54 10 N	105 53 15 W	15-25 fathoms. Sand, shell.	

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks	
			Position	Time	Fms.	Dir.	Position	Time		Fms.
Aug. 1939										
986-39	3	S. of San Miguel Island	33 58 00 N 120 28 00 W	3:40 PM	138	36	33 58 08 N 120 29 00 W	4:05 PM	130	Coarse, gray sand
987-39	3	S. of San Miguel Island	33 59 00 N 120 28 30 W	4:32 PM	170	67	33 59 45 N 120 27 45 W	5:10 PM	155	Rock, clay, shale
988-39	3	N. of Cape Bennett, San Miguel Island	34 02 00 N 120 26 50 W		Shore					Rock
989-39	3	S. of E. end of San Miguel Island	34 00 40 N 120 19 20 W			17				Fishing for sand dabs with copepod parasites
990-39	4	San Miguel Passage	33 59 15 N 120 17 30 W	10:06 AM	39	360	33 53 45 N 120 18 00 W	10:25 AM	37	Shale, gray sand, mud
991-39	4	San Miguel Passage	34 01 00 N 120 16 10 W	10:50 AM	18	360	34 01 15 N 120 16 45 W	11:06 AM	19	Shells, brittle stars
992-39	10	Off Santa Rosa Island	33 56 00 N 119 42 00 W	1:31 PM	230	315	33 56 30 N 119 40 30 W	2:00 PM	130	Gravel, mud
993-39	10	Off Santa Rosa Island	33 56 30 N 119 43 30 W	2:35 PM	130	270	33 56 00 N 119 43 30 W	3:21 PM	125	Gravel, mud
994-39	10	Off Santa Cruz Island	33 58 30 N 119 54 45 W	4:17 PM	127	180	33 58 30 N 119 55 15 W	4:41 PM	114	Broken shell, gray mud
995-39	10	Bechers Bay, Santa Rosa Island	33 59 40 N 119 59 30 W		10					Sand, coralline
996-39	12	Prisoners Harbor, Santa Cruz Island	34 02 15 N 119 40 50 W		35				45	Mud, sea pens
997-39	12	White Cove, Santa Catalina Island	33 23 25 N 118 22 00 W							Mud. Beach seine
998-39	12	White Cove, Santa Catalina Island	33 23 05 N 118 21 00 W		36				41	Mud and sand
999-39	12	Off Willow Cove, Santa Catalina Island	33 22 35 N 118 20 30 W		37				44	Sand, brachiopods

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks	
			Position	Time	Fms.	Dir.	Position	Time		Fms.
Aug. 1939										
1000-39	12	Off Long Point, Santa Catalina Island	33 24 30 N 118 21 10 W		90			101	Mud	
1001-39	12	White Cove, Santa Catalina Island	33 23 45 N 118 21 50 W		18				Hand line fishing	
1002-39	13	Off Long Point, Santa Catalina Island	33 24 10 N 118 21 30 W		50				Mud, sand	
1003-39	18	Bechers Bay, Santa Rosa Island	34 01 15 N 120 00 30 W	2:16 PM	14	90	34 01 45 N 120 00 14 W	2:33 PM	14	Sand, shell
1004-39	18	Bechers Bay, Santa Rosa Island	34 02 15 N 120 01 00 W	3:40 PM	16	135	34 01 45 N 120 00 30 W	3:51 PM	13	Rock, coralline
1005-39	18	Santa Cruz Channel	34 01 45 N 120 00 30 W	4:21 PM	34	180	34 05 10 N 119 57 30 W	4:30 PM	32	Sand, shell, crabs
1006-39	19	Prisoners Harbor, Santa Cruz Island	34 01 15 N 119 40 50 W			Shore				Collecting from skiff
1007-39	20	Off County Quarry, Santa Catalina Island	33 26 40 N 118 27 50 W		56					Brachiopods
Sept. 1939										
Mexico										
1008-39	19	Off San Benito Islands	28 16 17 N 115 32 54 W	4:30 PM	52	300	28 16 48 N 115 33 54 W	4:54 PM	51	Fine green sand, pebbles
1009-39	19	Between S. ends of E. and W. San Benito Islands	28 18 40 N 115 33 50 W		35					Rock, sand, kelp
1010-39 D-1	20	Off San Benito Islands	28 12 05 N 115 33 20 W	3:45 PM	92	310	28 12 45 N 115 34 05 W	4:18 PM	95	Fine green sand
1010-39 D-2	20	Off San Benito Islands	28 12 40 N 115 33 45 W	4:38 PM	86	272	28 12 45 N 115 35 15 W	5:12 PM	71	Fine green sand
1011-39	22	N. end of Ranger Bank, W. of Cedros Island	28 34 22 N 115 31 05 W	1:44 PM	85	170	28 33 58 N 115 31 00 W	3:08 PM	80	Rock

ALLAN HANCOCK WINTER CRUISES OF 1939

Station	Date	General Locality	Dredge Down Time Fms.	Dir.	Position	Dredge Up Time Fms.	Remarks
Nov. 1939							
California							
1012-39	9	S. of Pyramid Cove, San Clemente Island	32 45 55 N 118 26 10 W	55		69	Sand, shell
1013-39	10	Portuguese Bend	33 44 20 N 118 22 20 W	Shore			Rock, reefs
1014-39	11	S. of Breakwater, Corona del Mar	33 35 50 N 117 52 40 W	Shore			Rock, sand
1015-39	10	Craig's Shipyard, Terminal Island	33 46 10 N 118 13 00 W				Scrappings from hull of <i>Velero III</i> in dry dock
1016-39	23	Off Wilsons Cove, San Clemente Island	33 01 10 N 118 32 10 W	60		135	Sponges
1017-39	23	Off Wilsons Cove, San Clemente Island	33 01 05 N 118 32 10 W	105		180	Rock. Steep bottom
1018-39	23	Off Wilsons Cove, San Clemente Island	33 00 45 N 118 42 00 W	50		150	Sand, broken shell
1019-39	24	N. of San Clemente Island	33 04 40 N 118 42 00 W	250		300	Sand, mud
1020-39	24	N. of San Clemente Island	33 03 10 N 118 40 30 W	135		150	Gray sand
1021-39	24	Northwest Harbor, San Clemente Island	33 02 00 N 118 35 25 W	Shore			Rock, sand
1022-39	25	Off Pyramid Cove, San Clemente Island	32 46 35 N 118 21 50 W	150		170	Green mud
1023-39	25	Off Pyramid Cove, San Clemente Island	32 47 00 N 118 23 00 W	55		110	Fine gray sand
1024-39	25	Pyramid Cove, San Clemente Island	32 48 55 N 118 23 20 W	10			Eel grass, rock with kelp

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Nov. 1939										
1025-39	25	Horse Cove, nr. Pyramid Cove, San Clemente Isl.	32 48 30 N 118 24 55 W				Shore			Rock, tide pools
Dec. 1939										
1026-39	9	NW. of San Clemente Island	32 59 30 N 118 38 25 W		118				210	Sponges, mud
1027-39	10	5 mi. SE. of Santa Catalina Island	33 15 15 N 118 14 00 W		140				150	Green mud
1028-39	10	E. of SE. end of Santa Catalina Island	33 18 25 N 118 15 30 W		83				125	Mud, rock
1029-39	10	E. of White Cove, Santa Catalina Island	33 23 30 N 118 19 20 W		121				260	Mud
ALLAN HANCOCK PACIFIC EXPEDITION OF 1940										
Mexico										
West Coast of Lower California										
Jan. 1940										
1030-40	18	Off Turtle Bay	27 39 05 N 114 54 47 W	2:17 PM	31	81	27 39 12 N 114 54 12 W	2:47 PM	26	Gray sand, mud
1031-40	d-1	Off Santa Maria Bay	24 43 12 N 112 14 30 W	9:30 AM	25	343	24 44 00 N 112 14 48 W	9:47 AM	22	Worm tubes
1031-40	d-2	Off Santa Maria Bay	24 44 00 N 112 14 48 W	9:54 AM	22	19	24 44 26 N 112 14 38 W	10:13 AM	18	Gray sand, worm tubes
1031-40	d-3	Off Santa Maria Bay	24 44 26 N 112 14 38 W	10:20 AM	18	166	24 43 42 N 112 14 26 W	10:45 AM	22	Gray sand, worm tubes
1031-40	d-4	Off Santa Maria Bay	24 43 42 N 112 14 36 W	10:50 AM	22	151	24 42 46 N 112 13 52 W	11:17 AM	23	Gray sand
1031-40	d-5	Off Santa Maria Bay	24 42 46 N 112 13 52 W	11:28 AM	23	130	24 42 33 N 112 13 21 W	11:57 AM	23	Gray sand
1032-40	19	Off Magdalena Bay	24 27 14 N 112 10 06 W	2:24 PM	82	107	24 26 54 N 112 09 46 W	2:54 PM	81	Green mud

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Jan. 1940										
1033-40	19	Off Magdalena Bay	24 18 00 N 112 12 00 W		Sur- face					Shrimps
Gulf of California—West Coast										
1034-40			23 00 54 N 109 28 55 W	1:12 PM	59	65	23 01 10 N 109 28 55 W	1:32 PM	64	Coralline, sand
1034-40	D-1	Outer Gorda Bank	23 01 05 N 109 29 22 W	1:47 PM	67	79	23 01 30 N 109 27 45 W	2:21 PM	95	Coralline, brittle stars
1035-40	D-2	Outer Gorda Bank	23 02 00 N 109 30 15 W	2:45 PM	70	208	23 01 15 N 109 30 35 W	3:12 PM	78	Coralline, sand
1036-40	D-3	Inner Gorda Bank	23 10 45 N 109 25 45 W		Sur- face					Electric Light at Anchorage
1037-40		Arroyo de San Luis	23 38 12 N 109 30 00 W	10:20 AM	54	99	23 38 00 N 109 28 22 W	10:35 AM	150	Sand, coralline
1037-40	D-1	Boca de la Trinidad	23 37 55 N 109 29 15 W	11:06 AM	53	162	23 37 40 N 109 29 03 W	11:21 AM	53	Sand, coralline
1037-40	D-2	Boca de la Trinidad	23 37 40 N 109 29 03 W	11:28 AM	53	179	23 36 50 N 109 29 00 W	11:54 AM	51	Sand, coralline
1037-40	D-3	Boca de la Trinidad	23 37 40 N 109 29 03 W	11:28 AM	53	179	23 36 50 N 109 29 00 W	11:54 AM	51	Sand, coralline
Gulf of California—East Coast										
1038-40		Guaymas Bay, Sonora	27 54 40 N 110 53 37 W		2				3	Mud, algae
1039-40		Outside Guaymas Bay, Sonora	27 52 10 N 110 52 15 W		6				10	Shell, mud
1040-40		Guaymas Bay, Sonora	27 56 00 N 110 54 45 W		Shore					Rock
1041-40		Guaymas Bay, Sonora	27 54 28 N 110 54 18 W		Shore					Shingle
1042-40		Turner's Island, S. of Tiburon Island	28 43 30 N 112 19 05 W		Shore					Rocky reef

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Jan. 1940										
1043-40	25	Turner's Island, S. of Tiburon Island	28 43 30 N 112 19 05 W		2				3	Dipping and netting
1044-40	25	S. of Tiburon Island	28 44 45 N 112 18 20 W		2				16	Sand. Beam trawl
1045-40	25	S. shore of Tiburon Island	28 45 35 N 112 17 45 W			Shore				Shingle
Gulf of California—West Coast										
1046-40	26	Puerto Refugio, Angel de la Guardia Island	29 32 01 N 113 34 08 W			Shore				Shingle
1047-40	26	Puerto Refugio, Angel de la Guardia Island	29 31 57 N 113 13 43 W			Shore				Sand, rock
1048-40	26	Puerto Refugio, Angel de la Guardia Island	29 32 33 N 113 33 57 W					11		Shell, sand
1049-40	27	Puerto Refugio, Angel de la Guardia Island	29 32 47 N 113 34 35 W			Shore				Rocky reef
1050-40	27	Puerto Refugio, Angel de la Guardia Island	29 32 02 N 113 33 47 W					2		Sand. Beam trawl
1051-40	27	Puerto Refugio, Angel de la Guardia Island	29 33 23 N 113 33 53 W					21		Shell
1052-40	27	Puerto Refugio, Angel de la Guardia Island	29 32 17 N 113 34 30 W					6		Mud
1053-40	28	Puerto Refugio, Angel de la Guardia Island	29 32 47 N 113 34 35 W			Shore				Rock
1054-40	28	Puerto Refugio, Angel de la Guardia Island	29 35 35 N 113 36 00 W					78		Shell, mud
1055-40	28	N. of Granite Island, Angel de la Guardia Island	29 34 50 N 113 33 45 W					57		Shell, cake urchins

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Jan. 1940										
1056-40	28	Between Angel de la Guardia and Mejia Isls.	29 32 47 N 113 35 27 W		6				11	Sand, coralline
1057-40 D-1	29	Off Puerto Refugio, Angel de la Guardia Island	29 33 45 N 113 31 25 W	9:30 AM	54	96	29 33 45 N 113 30 40 W	9:50 AM	51	Gravel, <i>Clypeasters</i>
1057-40 D-2	29	Off Puerto Refugio, Angel de la Guardia Island	29 33 40 N 113 30 35 W	10:14 AM	51	119	29 33 40 N 113 30 35 W	10:25 AM	51	Rock
1057-40 D-3	29	Off Puerto Refugio, Angel de la Guardia Island	29 33 45 N 113 30 32 W	10:48 AM	56	103	29 33 45 N 113 31 15 W	11:05 AM	51	Sandy gravel
1058-40	29	Off Puerto Refugio, Angel de la Guardia Island	29 34 35 N 113 30 30 W	11:26 AM	68	205	29 33 45 N 113 30 59 W	11:47 AM	54	Sand, small rocks
1059-40	29	Off Puerto Refugio, Angel de la Guardia Island	29 34 31 N 113 30 10 W	1:05 PM	83	210	29 34 15 N 113 30 30 W	1:20 PM	75	Sand, shell
1060-40	29	Off Willard Point, Gonzaga Bay	29 47 15 N 114 22 25 W		Sur-face					Electric Light at Anchorage
1061-40	30	Off Willard Point, Gonzaga Bay	29 50 00 N 114 16 40 W		30				40	Mud
1062-40	30	Off Willard Point, Gonzaga Bay	29 49 45 N 114 23 30 W		16					Mud
1063-40	30	Willard Island, Gonzaga Bay	29 48 25 N 114 23 30 W		Shore					Shingle
1064-40	30	Off Willard Island, Gonzaga Bay	29 49 25 N 114 23 30 W		10				20	Mud
1065-40	30	Off Willard Island, Gonzaga Bay	29 47 15 N 114 22 25 W		Sur-face					Electric Light at Anchorage
1066-40	31	Consag Rock	31 07 00 N 114 27 35 W		Shore					Rock
1067-40	31	Off Consag Rock	30 53 00 N 114 28 48 W		40				45	Basket stars

Station	Date	General Locality	Dredge Down Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Feb. 1940										
1068-40	1	Off Consag Rock	31 06 30 N 114 28 00 W	8:15 AM	50	180	31 06 00 N 114 28 00 W	8:40 AM	24	Brown mud
1069-40	1	Off Consag Rock	31 06 30 N 114 28 15 W	9:40 AM	21	180	31 06 15 N 114 28 15 W	9:45 AM	21	Brown mud
1070-40	2	San Felipe Bay	31 01 50 N 114 49 30 W		3					Mud
1071-40	2	San Felipe Bay	31 01 00 N 114 49 50 W		2½					Sand
Gulf of California—East Coast										
1072-40	2	Off Rocky Point, Sonora	31 19 15 N 113 39 00 W	4:02 PM	10	220	31 19 00 N 113 39 15 W	4:17 PM	10	Sand, shell
1072-40	2	Off Rocky Point, Sonora	31 19 00 N 113 39 05 W	4:32 PM	11	180	31 18 45 N 113 39 05 W	4:45 PM	11	Mud, sand
1072-40	2	Off Rocky Point, Sonora	31 19 05 N 113 39 15 W	4:59 PM	11	175	31 18 50 N 113 39 10 W	5:09 PM	11	Mud, sand
1073-40	3	Off Rocky Point, Sonora	31 19 05 N 113 39 15 W		3				10	Sand, algae
1074-40	3	Off Rocky Point, Sonora	31 18 35 N 113 37 55 W	9:01 AM	11	315	31 18 50 N 113 38 25 W	9:22 AM	11	Mud, sand
1075a-40	3	Inside Georges Island	31 00 40 N 113 16 15 W	12:27 PM	11½	145	31 00 15 N 113 15 50 W	12:37 PM	13	Sand, shell
1075b-40	3	Inside Georges Island	31 00 15 N 113 15 50 W	12:47 PM	13	192	30 59 57 N 113 16 00 W	1:01 PM	12	Sand, shell
1076-40	3	Tepoca Bay, Sonora	30 15 45 N 112 53 20 W			Shore				Rock, reef
1077-40	4	Tepoca Bay, Sonora	30 15 45 N 112 53 20 W			Shore				Rock, reef

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Feb. 1940										
1078-40			30 15 37 N	8:40			30 15 00 N	9:03		
D-1	4	Tepoca Bay, Sonora	112 52 22 W	PM	11	197	112 52 34 W	PM	13	Sandy mud
1078-40			30 15 41 N	9:18			30 14 57 N	9:32		
D-2	4	Tepoca Bay, Sonora	112 52 08 W	AM	12	200	112 52 27 W	AM	12	Sand, shell
1079-40			29 02 35 N							
	4	Pond Island, Angel de la Guardia Island	113 07 40 W		Shore					Rock
1080-40			28 58 45 N	9:09			28 58 45 N	9:28		
D-1	5	S. of Pond Island, Angel de la Guardia Island	113 05 40 W	AM	70	90	113 05 20 W	AM	85	Sand, shell
1080-40			28 58 00 N	9:46			28 58 55 N	10:08		
D-2	5	S. of Pond Island, Angel de la Guardia Island	113 05 55 W	AM	62	45	113 05 00 W	AM	76	Sand
1081-40			28 56 00 N	10:42			28 56 20 N	10:53		
D-1	5	N. of Isla Partida	113 02 45 W	AM	46	55	113 02 25 W	AM	75	Coralline
1081-40			28 56 25 N	11:07			28 56 50 N	11:23		
D-2	5	N. of Isla Partida	113 04 45 W	AM	55	355	113 04 30 W	AM	76	Rock
1082-40			28 51 35 N	12:28			28 52 00 N	12:51		
D-2	5	Between Isla Raza and Isla Partida	113 02 10 W	PM	60	340	113 02 35 W	PM	58	Rock
1083-40			28 39 40 N							
D-2	5	San Esteban Island	112 35 35 W		Shore					Rock
1084-40			27 58 35 N	2:18				2:46		
D-2	6	San Pedro Nolasco Island	111 22 40 W	PM	111	271		PM	93	Rock
1085-40			27 58 25 N	2:55			27 58 40 N	3:08		
D-2	6	Off San Pedro Nolasco Island	111 23 35 W	PM	57	335	111 23 40 W	PM	55	Rock
1086-40			27 52 10 N							
D-2	6	Off Guaymas Harbor, Sonora	110 52 15 W		Sur-face					Electric Light at Anchorage
1086a-40			27 56 15 N	11:08			27 55 55 N	11:18		
D-2	7	Ensenada de San Francisco, Sonora	111 03 02 W	AM	15	242	111 03 47 W	AM	18	Mud, sand
1087-40			27 56 15 N							
D-2	7	Ensenada de San Francisco, Sonora	111 03 02 W		15				18	Sand

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Feb. 1940] 1088-40	7	Ensenada de San Francisco, Sonora	27 56 35 N 111 02 05 W		2			6		Sand. Beam trawl
1089-40	7	Ensenada de San Francisco, Sonora	27 57 05 N 111 03 20 W		Beach					Seine
1090-40	7	Outside Guaymas Harbor, Sonora	27 52 10 N 110 52 15 W							Hand lines at Anchorage
1091-40	8	Puerto San Carlos, Sonora	27 57 15 N 111 04 45 W		Shore					Shingle
1092-40	9	Bahia Catalina, off Guaymas, Sonora	27 51 50 N 111 06 15 W		Shore					Shingle
Gulf of California--West Coast										
1093-40	10	Puerto Escondido	25 49 25 N 111 18 35 W		8			15		Sand, sponge, coral
1094-40	10	Puerto Escondido	25 50 05 N 111 19 00 W		Shore					Mouth of Lagoon, Rock
1095-40	11	Puerto Escondido	25 50 05 N 111 19 00 W		1			2		Dipnetting
1096-40	11	Puerto Escondido	25 48 10 N 111 17 55 W		18			21		Sand, cake urchins
1097-40	11	Puerto Escondido	25 48 10 N 111 17 55 W		14			18		Sand, coral
1098-40	11	Puerto Escondido	25 50 05 N 111 19 00 W		Beach					Seine
1099-40	12	Agua Verde Bay	25 31 05 N 111 02 30 W		Shore					Skiff and clam rake
1100-40	12	Agua Verde Bay	25 31 40 N 110 59 35 W		6			22		Sand
1101-40	12	Agua Verde Bay	25 31 00 N 111 01 45 W		10			10		Mud, coral

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Feb. 1940										
1102-40	12	Agua Verde Bay	25 31 40 N 110 59 35 W		20					Mud
1103-40	12	Agua Verde Bay	25 31 05 N 111 02 30 W		Shore					Seine
1104-40	12	Agua Verde Bay	25 31 05 N 111 02 30 W		Shore					Rock
1105-40	13	4 mi. SE of Marcial Point	25 27 20 N 110 58 00 W	8:16 AM	127	360	25 28 28 N 110 58 00 W	8:50 AM	113	Green mud
1106-40	13	Off San Francisco Island	24 47 40 N 110 38 03 W	12:30 PM	44	216	24 47 25 N 110 38 25 W	12:49 PM	43	Gray sand
1107-40	13	Off San Gabriel Bay, Espiritu Santo Island	24 26 39 N 110 22 53 W	3:33 PM	29	154	24 26 19 N 110 22 45 W	3:41 PM	35	Green mud
1108-40	13	San Gabriel Bay, Espiritu Santo Island	24 25 25 N 110 20 55 W		Shore					Shingle
1109-40	14	San Gabriel Bay, Espiritu Santo Island	24 25 25 N 110 20 55 W		½				2	Dipnetting
1110-40	14	San Gabriel Bay, Espiritu Santo Island	24 25 25 N 110 20 55 W		Shoal					Coral
1111-40	14	San Lorenzo Channel	24 21 55 N 110 15 15 W		6				13	Sand, shell, coralline
1112-40	14	San Gabriel Bay, Espiritu Santo Island	24 25 25 N 110 20 55 W		Shore					Shingle, tide pools at stone pits
1113-40 D-1	15	NE. of Espiritu Santo Island	24 32 08 N 110 20 27 W	9:16 AM	58	343	24 32 50 N 110 20 27 W	9:31 AM	52	Green sand
1113-40 D-2	15	NE. of Espiritu Santo Island	24 32 08 N 110 20 07 W	9:44 AM	58	131	24 31 50 N 110 19 45 W	9:56 AM	69	Sand
1114-40	16	Fraille Bay	23 22 30 N 109 25 30 W		Shore					Seine

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Feb. 1940										
1115-40	16	San Jose del Cabo Bay	23 01 15 N 109 42 30 W				Shore			Rock
1116-40	16	Off Gorda Point	23 03 32 N 109 34 05 W	12:32 PM	55	325	23 03 45 N 109 34 25 W	12:49 PM	51	Fine sand, mud
1117-40	16	Off Gorda Point	23 04 13 N 109 35 17 W	1:31 PM	17	225	23 04 03 N 109 35 27 W	1:46 PM	25	Gray sand
1118-40										
D-1	17	Inner Gorda Bank	23 02 00 N 109 31 15 W	8:36 AM	59	34	23 02 25 N 109 31 00 W	8:57 AM	61	Coarse gray sand
1118-40										
D-2	17	Inner Gorda Bank	23 02 25 N 109 30 48 W	9:06 AM	59	289	23 02 30 N 109 31 07 W	9:29 AM	78	Coarse gray sand
1118-40										
D-3	17	Inner Gorda Bank	23 02 17 N 109 31 00 W	12:56 PM	69	211	23 02 00 N 109 31 09 W	1:16 PM	60	Coarse gray sand
1118-40										
D-4	17	Inner Gorda Bank	23 02 00 N 103 31 09 W	1:20 PM	60	270	23 02 00 N 109 31 38 W	1:43 PM	66	Coarse gray sand
West Coast of Lower California										
1119-40	19	5 mi. S. of San Benito Islands	28 12 00 N 115 33 33 W	9:24 AM	95	328	28 13 28 N 115 34 22 W	9:53 AM	87	Sand
ALLAN HANCOCK CRUISES OF 1940 AND 1941										
April 1940										
California										
1120-40										
D-1	11	Off San Nicolas Island	33 17 50 N 119 29 30 W	8:20 AM	30	80	33 17 45 N 119 29 10 W	8:35 AM	29	Sand, broken shells
1120-40										
D-2	11	Off San Nicolas Island	33 17 50 N 119 28 55 W	8:45 AM	30	311	33 18 15 N 119 29 25 W	9:00 AM	33	Sand, shell
1120-40										
D-3	11	Off San Nicolas Island	33 18 10 N 119 29 50 W	10:50 AM	32	78	33 18 20 N 119 28 45 W	11:03 AM	32	Sand, broken shells
1121-40	11	Off San Nicolas Island	33 20 20 N 119 29 50 W	9:15 AM	48	125	33 19 45 N 119 29 05 W	9:30 AM	40	Broken shell, boulder

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
April 1940										
1122-40	11	Off San Nicolas Island (Outside of Anchorage)	33 18 00 N 119 24 10 W		30					Sand, rock, shell
1122a-40	11	Off San Nicolas Island	33 16 35 N 119 28 30 W							Anchorage. Hand line fishing
1123-40	12	Off San Nicolas Island	33 15 50 N 119 24 40 W	7:45 AM	28	34	33 16 10 N 119 24 30 W	8:05 AM	31	Sponge, rock
1124-40	12	Off San Nicolas Island	33 16 10 N 119 24 30 W	8:11 AM	31	51	33 16 15 N 119 24 10 W	8:27 AM	34	Sand, shell, urchins
1125-40	12	Off San Nicolas Island	33 18 10 N 119 22 40 W	9:06 AM	97	317	33 18 25 N 119 22 15 W	9:35 AM	104	Green sand
1126-40 D-1	20	Off Huntington Beach	33 37 02 N 118 01 55 W	9:40 AM	8	144	33 37 00 N 118 04 00 W	9:55 AM	15	Sand
1126-40 D-2	20	Off Huntington Beach	33 36 30 N 118 03 00 W	10:55 AM	14	88	33 36 25 N 118 04 00 W	11:05 AM	15	Fine black sand
1127-40	20	Off Huntington Beach	33 38 30 N 118 00 20 W		4-20					(Beam trawl)
1128-40	20	Newport Harbor, in channel, in bay.	33 35 30 N 117 52 10 W		4-10					Mud, sand, etc.
1129-40 D-1	21	Off Newport Beach	33 35 25 N 117 55 30 W	8:33 AM	38	52	33 35 40 N 117 55 25 W	8:50 AM	35	Mud
1129-40 D-2	21	Off Newport Beach	33 35 15 N 117 54 40 W	9:10 AM	40	97	33 35 10 N 117 54 15 W	9:25 AM	50	Mud
1130-40 D-1	21	Off Abalone Point, Laguna Beach	33 32 15 N 117 48 10 W	11:15 AM	25	180	33 32 50 N 117 49 00 W	11:30 AM	27	Mud
1130-40 D-2	21	Off Abalone Point, Laguna Beach	33 32 40 N 117 48 45 W	12:25 PM	28	155	33 32 10 N 117 48 15 W	12:40 PM	29	Mud
1131-40	21	Off Abalone Point, Laguna Beach	33 30 40 N 117 47 10 W	1:30 PM	54	230	33 30 20 N 117 47 30 W	1:45 PM	57	Mud

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks
			Position	Time	Fms. Dir.	Position	Time	Fms.	
May 1940									
1132-40	5	Off Redondo Beach	33 49 10 N 118 26 10 W	10:10 AM	85 143	33 48 50 N 118 25 55 W	10:30 AM	43	Mud
1133-40 D-1	5	Off Redondo Beach	33 49 30 N 118 26 15 W	10:45 AM	172 206	33 49 15 N 118 26 30 W	11:00 AM	136	Mud, worms
1133-40 D-2	5	Off Redondo Beach	33 49 15 N 118 26 20 W	11:15 AM	140 135	33 48 45 N 118 25 55 W	11:35 AM	49	Mud
1134-40	5	Off Redondo Beach	33 49 30 N 118 25 15 W	12:30 PM	32 103	33 49 20 N 118 24 50 W	12:45 PM	16	Sand, shell
1135-40	5	Off Redondo Beach	33 50 20 N 118 24 35 W	1:00 PM	18 79	33 50 15 N 118 25 10 W	1:15 PM	45	Coarse sand and gravel
1136-40	5	Off Redondo Beach	33 48 25 N 118 30 20 W	1:55 PM	240 154	33 47 45 N 118 29 50 W	2:30 PM	70	Green mud
1137-40	5	Off Redondo Beach	33 49 50 N 118 26 10 W	4:40 PM	120 61½	33 49 55 N 118 25 45 W	5:00 PM	96	Gray mud, shell
1138-40	6	Off Redondo Beach			13	33 50 05 N 118 24 00 W		22	Mud (Small Dredge)
1139-40	6	Off Redondo Beach			11	33 49 30 N 118 23 50 W		20	Gravel (Small Dredge)
1140-40	6	Off Redondo Beach			10	33 50 30 N 118 24 15 W		20	Sand, Beam trawl
1141-40 D-1	6	Off E! Segundo	33 53 25 N 118 28 40 W	11:00 AM	28 189	33 53 15 N 118 28 35 W	11:13 AM	30	Gray-green sand
1141-40 D-2	6	Off E! Segundo	33 53 15 N 118 28 35 W	11:25 AM	30 117	33 52 58 N 118 28 15 W	11:35 AM	31	Gray-green sand
1142-40	6	Off Point Vicente Light House	33 44 10 N 118 24 20 W	1:26 PM	17 165	33 43 45 N 118 24 15 W	1:40 PM	41	Coarse sand, mud
1143-40	6	Off Portuguese Point	33 44 59 N 118 22 35 W	1:55 PM	16 162	33 43 45 N 118 22 20 W	2:05 PM	20	Gray sand, sea weed

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
June 1940										
1144-40	30	Santa Barbara Island North end	33 34 50 N 119 00 45 W	2:35 PM	77	240	33 34 30 N 119 01 30 W	3:05 PM	81	Fine sand, sponge
1145-40	30	Santa Barbara Island East side	33 28 20 N 119 00 20 W	5:00 PM	41	14	33 28 40 N 119 00 15 W	5:15 PM	47	Rock, kelp, fine sand
July 1940										
1146-40	1	E. of Santa Barbara	33 29 10 N 119 00 00 W		36				48	Beam trawl. Sand, fish
1147-40	1	Santa Catalina Island West end	33 27 50 N 118 37 45 W	1:54 PM	59	340	33 28 15 N 118 37 55 W	2:10 PM	69	Dead shells, sand
1148-40	1	Santa Catalina Island West end	33 29 20 N 118 36 10 W	2:25 PM	81	331	33 29 55 N 118 36 30 W	2:50 PM	126	Gray-green mud
1149-40	4	Santa Catalina Island Avalon Bay	33 20 50 N 118 17 45 W	4:00 PM	82	123	33 20 35 N 118 17 15 W	4:15 PM	88	Mud
1150-40	4	Santa Catalina Island Avalon Bay	33 20 30 N 118 17 10 W	4:30 PM	98	105	33 20 20 N 118 16 10 W	4:50 PM	116	Sand, sponge, cobble
1151-40	5	SE. end of Santa Catalina Island	33 16 15 N 118 14 45 W	9:37 AM	117	125½	33 15 55 N 118 13 50 W	10:30 AM	128	Rocks, sand, dead shell, sponge
1152-40	5	SE. end of Santa Catalina Island	33 15 55 N 118 13 50 W	10:47 AM	132	131	33 15 25 N 118 13 00 W	11:05 AM	148	Rocky
1153-40	5	East of Long Point Santa Catalina Island		1:00 PM	35		33 24 10 N 118 21 25 W	4:30 PM	46	Mud bottom. Beam trawl. 6 hauls
1154-40	6	W. of Long Point to Coral Beach, Santa Catalina Isl.		8:00 AM	20		33 25 05 N 118 22 35 W	12:00 M	50	Mud bottom. Beam trawl. 3 hauls
1155-40	6	White Cove, Santa Catalina Island		2:30 PM	16		33 23 35 N 118 21 30 W	5:00 PM	35	Algae, kelp, mud, debris, holo- thurians. Beam trawl. 2 hauls
1156-40	7	6½ mi. E. of Long Point Santa Catalina Island	33 24 25 N 118 13 31 W	9:40 AM	230	267	33 24 15 N 118 14 45 W	10:45 AM	380	Boulders, pebbles

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks	
			Position	Time	Fms.	Dir.	Position	Time		Fms.
July 1940										
1157-40	7	3½ mi. E. of Long Point Santa Catalina Island	33 24 15 N 118 18 15 W	11:27 AM	290	270	33 24 10 N 118 19 10 W	12:15 PM	285	Mud
1158-40	7	3 mi. off Seal Beach		2:30 PM	11		33 41 55 N 118 08 35 W	4:00 PM	11	Sand, debris, fish, shell. Beam trawl. 2 hauls
1159-40 D-1	22	10 mi. SE. of Long Beach	33 36 50 N 118 06 15 W	2:42 PM	25	284	33 37 05 N 118 06 45 W	2:55 PM	23	Mud, fine sand
1159-40 D-2	22	10 mi. SE. of Long Beach	33 35 45 N 118 03 25 W	3:05 PM	28	294	33 36 45 N 118 05 50 W	3:25 PM	25	Mud, fine sand
1159-40 D-3	22	10 mi. SE. of Long Beach	33 37 00 N 118 06 00 W	3:35 PM	24½	239	33 36 55 N 118 05 05 W	3:50 PM	22	Fine sand
1160-40	22	11½ mi. SE. of Long Long Beach	33 36 15 N 118 06 45 W	3:55 PM	32	139	33 35 40 N 118 05 45 W	4:20 PM	52	Mud, sand, dead shells
1161-40	23	2 mi. off Belmont Pier	33 43 00 N 118 10 10 W	8:30 AM	7			11:10 AM	10	Sand
1162-40	23	11 mi. S. of Seal Beach	33 33 05 N 118 09 45 W	12:20 PM	95	45	33 33 50 N 118 09 35 W	12:55 PM	82	Sponge, sand
1163-40	23	13½ mi. S. of Seal Beach	33 30 32 N 118 06 35 W	1:20 PM	215	55	33 31 10 N 118 05 30 W	2:25 PM	225	Green mud
1164-40	23	9¾ mi. S. of Seal Beach	33 34 55 N 118 06 00 W	3:00 PM	110	360	33 35 25 N 118 06 10 W	3:35 PM	58	Gray-green mud
1165-40	23	Off San Pedro Breakwater	33 40 50 N 118 11 45 W	4:25 PM	14	244	33 40 40 N 118 12 00 W	4:40 PM	14	Sand, shell
Aug. 1940										
1166-40 D-1	8	7 mi. E. of Long Point Santa Catalina Island	33 24 35 N 118 13 20 W	10:20 AM	230	234	33 24 10 N 118 13 50 W	11:15 AM	340	Boulders, rubble
1166-40 D-2	8	7 mi. E. of Long Point Santa Catalina Island	33 24 35 N 118 13 20 W	11:40 AM	230	248	33 24 15 N 118 13 55 W	12:25 PM	330	Boulders, rubble

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks	
			Position	Time	Fms.	Dir.	Position	Time		Fms.
Aug. 1940										
1167-40	8	Between Avalon & Long Point, Santa Catalina Isl.	33 23 30 N 118 21 50 W	2:30 PM	30	139	33 21 00 N 118 18 55 W	5:00 PM	44	Mud, sponge, holothurians
1168-40	9	3½ mi. off Newport Beach	33 34 15 N 117 58 35 W	3:18 PM	34	294	33 34 20 N 117 59 00 W	3:30 PM	37	Gray-green mud
1169-40	9	¾ mi. W. of Huntington Beach	33 37 45 N 118 03 50 W	4:05 PM	17	314	33 38 00 N 118 04 10 W	4:20 PM	18	Mud, sand
1170-40	19	Isthmus Cove, Santa Catalina Island	33 26 45 N 118 27 10 W	8:30 AM	80	292	33 27 10 N 118 28 30 W	12:00 M	100	Sponge, sand, gravel
1171-40	19	White Cove, Santa Catalina Island	33 24 15 N 118 21 40 W	1:00 PM	25	311	33 23 00 N 118 20 45 W	4:15 PM	38	Sponge, sand, gravel
1172-40	20	5½ mi. SE. of Santa Catalina Island	33 15 55 N 118 12 25 W	9:43 AM	150	217	33 15 30 N 118 12 50 W	10:15 AM	145	Boulders, gravel
1173-40	20	4 mi. SE. of Santa Catalina Island	33 16 55 N 118 13 55 W	10:42 AM	115	276	33 17 10 N 118 15 10 W	11:20 AM	108	Fine green sand
1174-40	20	San Pedro Channel	33 24 15 N 118 00 20 W	2:10 PM	74	270	33 24 20 N 118 00 50 W	2:25 PM	67	Sponge, broken dead shell
1174-40	20	San Pedro Channel	33 23 40 N 118 00 50 W	2:40 PM	69	118	33 24 10 N 117 58 40 W	3:05 PM	110	Rock, sand, dead shell
Sept. 1940										
1175-40	9	W. of Santa Barbara Island	33 29 40 N 119 07 00 W	3:26 PM	125	263	33 29 50 N 119 07 40 W	3:45 PM	150	Gray sand
1176-40	9	W. of Santa Barbara Island	33 29 30 N 119 06 45 W	4:28 PM	100	235	33 29 50 N 119 07 30 W	4:40 PM	100	Gray sand
1177-40	9	N. of Santa Barbara Island	33 30 58 N 119 00 50 W	5:20 PM	37	320	33 30 25 N 119 00 25 W	5:30 PM	40	Gray sand
1178-40	10	N. of Santa Catalina Island, off Eagle Bank	33 30 45 N 118 30 40 W	9:00 AM	43	110	33 27 40 N 118 30 00 W	9:15 AM	40	Gray sand

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks	
			Position	Time	Fms.	Dir.	Position	Time		Fms.
Sept. 1940										
1179-40	10	Isthmus Cove, Santa Catalina Island	33 26 50 N 118 29 30 W	9:15 AM	7½	340	33 27 00 N 118 29 35 W	9:30 AM	14	Mud, sand, coralline
1180-40	10	Isthmus Cove, Santa Catalina Island	33 27 05 N 118 29 35 W	10:00 AM	18	330	33 27 20 N 118 29 50 W	10:30 AM	13	Coralline, kelp
1181-40	10	Santa Catalina Island, Off Howland's Landing	33 28 15 N 118 28 20 W	12:55 PM	61	257	33 28 10 N 118 28 50 W	1:10 PM	64	Broken shell, Brachiopods
1181-40	10	Santa Catalina Island, Off Howland's Landing	33 28 08 N 118 28 48 W	1:15 PM	58	289	33 28 50 N 118 31 20 W	1:45 PM	58	Broken shell, Brachiopods
1181-40	10	Santa Catalina Island, Off Howland's Landing	33 30 20 N 118 32 28 W	4:05 PM	47	330	33 29 02 N 118 32 40 W	4:20 PM	49	Coarse sand, Brachiopods
1182-40	10	Santa Catalina Island, Off Howland's Landing	33 30 58 N 118 31 58 W	1:50 PM	160	248	33 29 50 N 118 32 20 W	2:35 PM	160	Mud
1183-40	10	Santa Catalina Island, Off Howland's Landing	33 29 28 N 118 33 30 W	3:10 PM	130	290	33 29 45 N 118 34 10 W	3:46 PM	160	Mud
1184-40	11	W. end of Santa Catalina Island	33 29 10 N 118 36 30 W	8:45 AM	62	15	33 29 50 N 118 37 20 W	9:04 AM	123	Nil—mud
1184-40	11	W. end of Santa Catalina Island	33 29 05 N 118 36 25 W	9:23 AM	62	358	33 29 30 N 118 36 50 W	9:45 AM	126	Nil—mud
1184-40	11	W. end of Santa Catalina Island	33 28 50 N 118 36 00 W	9:55 AM	46	350	33 29 05 N 118 35 55 W	10:15 AM	55	Gray sand
1185-40	28	N. end of Santa Catalina Island	33 31 00 N 118 31 00 W	2:38 PM	52	285	33 28 40 N 118 31 20 W	2:44 PM	50	Broken shell, green sand
1185-40	28	N. end of Santa Catalina Island	33 28 30 N 118 30 50 W	3:30 PM	50	327	33 28 15 N 118 30 45 W	3:45 PM	50	Sand, shell
1185-40	28	N. end of Santa Catalina Island	33 29 00 N 118 30 45 W	4:05 PM	110	287	33 29 10 N 118 31 10 W	4:35 PM	90	Sand, shell
1186-40	29	Off Ship Rock, Santa Catalina Island	33 26 45 N 118 29 20 W	9:00 AM	7	300	33 26 55 N 118 29 40 W	11:15 AM	16	Sand, mud, algae, Small dredge boat

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Sept. 1940										
1187-40	29	Off Bird Rock, Santa Catalina Island	33 27 15 N 118 29 15 W	9:00 AM	31	290	33 27 20 N 118 29 00 W	11:15 AM	40	Rock, coarse shell, kelp. Sm. dredge boat
1188-40 d-1	29	5½ mi. off SE. end, Santa Catalina Island	33 15 50 N 118 13 20 W	1:00 PM	145	104	33 15 45 N 118 12 29 W	1:37 PM	150	Gravel, rock
1188-40 d-2	29	6 mi. SE. of Santa Catalina Island	33 15 30 N 118 12 15 W	1:53 PM	150	130	33 15 00 N 118 11 35 W	2:35 PM	155	Gravel, rock
Oct. 1940										
1189-40	29	Santa Cruz Island	34 02 45 N 119 32 50 W	2:30 PM	Beach			4:30 PM		Heavy shingle
1190-40	30	Anacapa Passage	33 58 45 N 119 32 15 W	8:38 AM	50	34	33 59 15 N 119 32 00 W	8:55 AM	15	Sand, gravel
1191-40 d-1	30	S. side of Santa Cruz Island	33 58 10 N 119 37 40 W	9:43 AM	40	249	33 57 50 N 119 38 10 W	10:05 AM	39	Gray sand
1191-40 d-2	30	S. side of Santa Cruz Island	33 57 40 N 119 38 00 W	10:20 AM	39	244	33 57 45 N 119 38 20 W	10:38 AM	37	Sand, shell
1192-40	30	Off Bowen Point Santa Cruz Island	33 56 00 N 119 43 15 W	11:05 AM	90	344	33 56 25 N 119 43 25 W	11:40 AM	58	Sand, broken shell
1193-40	30	Willow Anchorage, S. side, Santa Cruz Island	33 57 40 N 119 45 10 W	2:00 PM	Beach			4:50 PM		Shore collecting
1194-40	31	S. side of Santa Cruz Island, off Gull Island	33 56 40 N 119 47 05 W	7:50 AM	39	247	33 56 35 N 119 47 40 W	8:10 AM	43	Gray sand, mud
1195-40	31	S. side of Santa Cruz Island, off Gull Island	33 55 45 N 119 47 07 W	8:38 AM	138	263½	33 55 40 N 119 47 45 W	9:15 AM	64	Sand, broken shell. Some rock
1196-40	31	S. side of Santa Cruz Island, off Gull Island	33 55 50 N 119 48 50 W	9:35 AM	110	304	33 56 10 N 119 49 20 W	10:05 AM	140	Rock, sponge
1197-40	31	E. of Gull Island, S. of Santa Cruz Island	33 57 15 N 119 47 15 W	7:30 AM	10	270	33 57 30 N 119 48 05 W	8:30 AM	6	Sand, red-green algae. <i>Dendroaster</i> , crabs

Station	Date	General Locality	Dredge Down		Dredge Up		Remarks
			Position	Time	Position	Time	
				Fms.		Fms.	
Oct. 1940							
1198-40	31	E. of Gull Island, S. of Santa Cruz Island	33 57 30 N 119 46 15 W	8:30 AM	33 57 30 N 119 46 30 W	9:30 AM	<i>Asterias</i> Coarse sand, shell.
1199-40	31	E. of Gull Island, S. of Santa Cruz Island	33 57 20 N 119 48 40 W	9:30 AM	33 56 50 N 119 48 50 W	10:30 AM	Mud, sand, algae, brown kelp, rocks
Nov. 1940							
1200-40	16	W. end of Santa Catalina Island	33 29 40 N 118 37 15 W	2:35 PM	33 29 50 N 118 37 20 W	3:10 PM	Green mud
1201-40	16	Off W. end of Santa Catalina Island	33 30 10 N 118 37 25 W	3:30 PM	33 29 50 N 118 37 55 W	4:10 PM	Green mud
1202-40	17	Off Point Firmin	33 41 45 N 118 17 50 W	2:15 PM	33 41 45 N 118 18 00 W	2:26 PM	Gray mud
1203-40	23	W. of Dutch Harbor, San Nicolas Island	33 12 50 N 119 29 45 W	PM	33 13 10 N 119 30 15 W	PM	Sand. Small dredge
1204-40	23	W. of Dutch Harbor, San Nicolas Island	33 12 55 N 119 30 30 W	PM	33 13 05 N 119 30 50 W	PM	Rocky. Small dredge
1205-40 D-1	24	S. side of San Nicolas Island	33 12 45 N 119 29 15 W	8:20 AM	33 12 40 N 119 29 40 W	8:40 AM	Green sand
1205-40 D-2	24	S. side of San Nicolas Island	33 12 40 N 119 29 30 W	8:42 AM	33 12 30 N 119 30 02 W	9:00 AM	Green sand
1206-40	24	Off Dutch Harbor, San Nicolas Island	33 13 00 N 119 29 20 W	AM	33 13 00 N 119 29 20 W	AM	Fine sand. Skiff
1206a-40	24	Dutch Harbor	33 13 10 N 119 29 10 W	AM	33 13 10 N 119 29 10 W	AM	Rocky shore
1207-40	24	2 1/4 mi. S. of San Pedro Breakwater	33 40 10 N 118 14 10 W	3:55 PM	33 40 30 N 118 14 20 W	4:05 PM	Sand, pebble, broken shell
1208-40	27	Playa del Rey	(Old Pier)	1:00 PM		3:00 PM	Low tide

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Nov. 1940										
1209-40	29	Laguna Beach	33 32 45 N 117 48 30 W	3:00 PM	Shore		33 32 45 N 117 48 30 W	5:00 PM	Shore	Rocky and underlaid, Heavy covered sand Shale—S.S. reefs just N. of caves
1210-40	28	La Jolla								
1211-40	29	Mission Bay								Very poor
1212-40	30	San Pedro Channel 70 fathom Bank	33 24 10 N 117 59 40 W	8:25 AM	86	276	33 24 15 N 118 01 15 W	8:50 AM	129	Rock, sponge
1213-40	30	San Pedro Channel 70 fathom Bank	33 24 35 N 117 59 35 W	9:30 AM	114	247	33 24 15 N 118 00 35 W	9:56 AM	131	Rock, pebbles
1214-40	30	San Pedro Channel 70 fathom Bank	33 24 45 N 118 00 50 W	10:20 AM	150	341½	33 25 25 N 118 01 12 W	11:20 AM	200	Sandy black mud
1215-40	30	San Pedro Channel 70 fathom Bank	33 24 10 N 117 59 35 W	7:30 AM	68	106	33 23 50 N 117 59 00 W	11:30 AM	82	Tangles. 3 hauls
1216-40	30	Point Fermin	33 42 30 N 118 17 00 W	2:30 PM	Shore		33 42 30 N 118 17 00 W	4:20 PM	Shore	Shore collecting
1217-40	30	Inside at Point Fermin	33 42 45 N 118 16 45 W	2:30 PM	Shore		33 42 45 N 118 16 45 W	4:20 PM	Shore	Rock wall, loose rock Reefs at low tide. Site of old pier
1218-40	30	Laguna Beach								
Dec. 1940										
1219-40 D-1	12	Dutch Harbor, San Nicolas Island	33 13 05 N 119 29 30 W	8:25 AM	20	159	33 12 30 N 119 29 15 W	8:45 AM		Fine sand
1219-40 D-2	12	Dutch Harbor, San Nicolas Island	33 12 45 N 119 28 50 W	8:54 AM	15	267	33 12 45 N 119 29 30 W	9:05 AM	22	Fine sand
1220-40	12	1½ mi. off Dutch Harbor, San Nicolas Island	33 11 50 N 119 29 10 W	9:23 AM	63	189	33 11 30 N 119 29 15 W	9:45 AM	83	Gray sand, mud, dead shell

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks
			Position	Time	Fms.	Dir.	Position	Time	
Dec. 1940									
1221-40	27	Avalon, Santa Catalina Island	33 20 45 N 118 19 45 W	12:00 M	Shore			33 20 45 N 118 19 45 W	2:00 PM Shore Rock
Jan. 1941									
1222-41	24	Newport & Balboa Channel	33 36 02 N 117 52 50 W	3:00 PM	Shore low water			33 36 02 N 117 52 50 W	5:00 PM Shore Tide—1.2'. Shore collecting
1223-41 d-1	25	San Pedro Channel, 12 mi. SW. of Newport	33 27 15 N 118 02 35 W	8:22 AM	225	243		33 27 00 N 118 03 25 W	9:20 AM 235 Mud. Temp. app. 47° F. Green sand
1223-41 d-2	25	San Pedro Channel, 12 mi. SW. of Newport	33 27 10 N 118 02 25 W	10:00 AM	235	285		33 27 20 N 118 03 20 W	10:55 AM 250 Green sand, mud
1224-41	25	Newport Channel, Balboa	33 36 02 N 117 52 50 W	1:30 PM	Shore			33 36 02 N 117 52 50 W	5:00 PM Shore collecting Tide—1.6'.
1225-41	25	SE. of Newport Breakwater	33 35 25 N 117 52 06 W	1:30 PM	Shore			33 35 25 N 117 52 06 W	5:00 PM Shore collecting Tide—1.6'.
1226-41	26	4½ mi. SW. of Balboa, San Pedro Channel	33 33 20 N 117 56 30 W	8:15 AM	140	268		33 33 35 N 117 58 20 W	8:45 AM 135 Fine gray mud
1227-41	26	3½ mi. W. of Balboa, San Pedro Channel	33 34 00 N 117 58 20 W	9:20 AM	75	263		33 33 55 N 117 59 00 W	9:35 AM 56 Green mud (sticky)
1228-41	26	11 mi. SSE. of San Pedro Brkwr., S. Pedro Chnl.	33 32 50 N 118 08 40 W	10:25 AM	126	248		33 32 30 N 118 09 25 W	11:00 AM 138 Gray-green sand
1229-41	26	10 mi. S. of San Pedro Brkwr., S. Pedro Chnl.	33 33 35 N 118 09 10 W	11:20 AM	83	242		33 33 20 N 118 10 10 W	11:50 AM 81 Gray-green sand
1230-41	26	San Pedro Breakwater	33 42 08 N 118 16 05 W	2:00 PM	Shore			33 42 08 N 118 16 05 W	4:00 PM Shore collecting
Feb. 1941									
1231-41	15	6 mi. SE. of San Pedro Breakwater	33 38 10 N 118 09 50 W	8:57 AM	20	101		33 38 10 N 118 09 35 W	9:10 AM 21 Sandy
1232-41 d-1	15	5 mi.—152° from San Pedro Breakwater	33 38 15 N 118 12 15 W	9:44 AM	19	36		33 38 25 N 118 12 05 W	10:03 AM 18 Coarse sand, dead shell

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Feb. 1941										
1232-41	15	5 mi.—152° from San Pedro Breakwater	33 38 30 N 118 12 20 W	10:31 AM	18	143	33 38 20 N 118 12 10 W	10:50 AM	19	Coarse sand, shell
1232-41	15	5 mi.—152° from San Pedro Breakwater	33 38 20 N 118 12 15 W	10:55 AM	18	95	33 38 20 N 118 12 00 W	11:10 AM	17	Coarse sand, shell, clay
1233-41	16	Along Huntington Beach	33 42 15 N 118 06 10 W	9:15 AM	5	259		11:45 AM		Sm. dredge boat along beach, 10 around ship and back
1234-41	16	3½ mi.—238° off Huntington Beach	33 37 35 N 118 05 10 W	12:47 PM	18	269	33 38 00 N 118 05 15 W	1:03 PM	19	Mud, sand
1234-41	16	3½ mi.—238° off Huntington Beach	33 38 00 N 118 05 15 W	1:14 PM	19	90	33 38 00 N 118 05 05 W	1:30 PM	18	Sandy
1235-41	16	3½ mi.—238° off Huntington Beach	33 37 40 N 118 04 10 W	1:40 PM	18	313	33 37 55 N 118 04 05 W	1:53 PM	18	Green mud, fine sand
1236-41	16	6 mi. SW. of Seal Beach	33 36 30 N 118 06 25 W	2:24 PM	27	46	33 36 45 N 118 06 15 W	2:35 PM	26	Green sand, mud
1237-41	16	80 fm. bank off Huntington Beach	33 34 30 N 118 07 10 W	3:00 PM	77	62	33 34 45 N 118 06 32 W	3:20 PM	74	Gray-green mud
ALLAN HANCOCK PACIFIC EXPEDITION OF 1941										
California										
1238-41	22	Off Wilson Cove, San Clemente Island	33 00 29 N 118 33 15 W	12:48 PM	14	183	33 01 01 N 118 33 25 W	1:06 PM	16	Kelp, gray sand
1239-41	22	Off Wilson Cove, San Clemente Island	33 00 40 N 118 32 45 W	1:35 PM	52	133	33 00 30 N 118 32 20 W	1:50 PM	61	Coralline, shell
1240-41	23	9 mi. off San Diego	32 34 50 N 117 22 05 W	11:04 AM	78	335½	32 33 15 N 117 22 25 W	11:50 AM	81	Green sand, pebbles Temp. 58° F.
1241-41	23	7½ mi. S. of Point Loma	32 33 10 N 117 15 16 W	12:27 PM	30	187	32 32 16 N 117 15 28 W	1:45 PM	31	Coarse sand, Temp. 58° F.

Station	Date	General Locality	Dredge Down Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Feb. 1941										
1241-41 D-2	23	7½ mi. S. of Point Loma	32 32 16 N 117 15 28 W	1:46 PM	32	177	32 32 45 N 117 15 30 W	2:03 PM	33	Coarse sand, Temp. 58° F.
1242-41	23	San Diego Bay Anchorage	32 38 50 N 117 12 15 W	1:50 PM	6	274	32 38 55 N 117 13 00 W	3:30 PM	7	Small dredge boat
1243-41	23	2¾ mi. off Point Loma, San Diego	32 37 45 N 117 12 35 W	4:02 PM	13	314	33 37 50 N 117 12 45 W	4:12 PM	9	Broken shell, worms
Mexico										
1244-41	24	4 mi. N. of Todos Santos Island, Mexico	31 52 20 N 116 49 15 W	4:56 PM	40	183½	31 52 10 N 116 49 25 W	5:14 PM	40	Rock
1245-41	24	4 mi. N. of Todos Santos Island, Mexico	31 53 20 N 116 48 15 W	5:29 PM	41		31 53 20 N 116 48 15 W	5:46 PM	41	Shell, mud, gray sand
1246-41 D-1	25	Ranger Bank, off Ced- ros Island, Mexico	28 33 44 N 115 30 00 W	10:50 AM	78	218	28 32 14 N 115 30 42 W	11:10 AM	81	Coral, loose rock
1246-41 D-2	25	Ranger Bank, off Ced- ros Island, Mexico	28 32 15 N 115 30 42 W	11:20 AM	81	189	28 32 47 N 115 30 44 W	11:45 AM	83	Loose rock, pebbles, shell
1247-41	25	Ranger Bank, off Ced- ros Island, Mexico	28 30 46 N 115 29 45 W	12:46 PM	76	333	28 31 15 N 115 30 17 W	1:07 PM	77	Coral, loose rock
1248-41	25	East San Benito Island, Mexico	23 18 10 N 115 32 20 W	2:40 PM	Beach		23 18 10 N 115 32 20 W	5:10 PM	Beach	Rock
1249-41	26	1 mi. S. of San Benito Islands, Mexico	28 17 55 N 115 33 55 W	8:47 AM	34	142	28 17 10 N 115 33 20 W	9:00 AM	44	White sand (fine)
1250-41	26	1 mi. S. of San Benito Islands, Mexico	28 17 15 N 115 35 40 W	9:23 AM	44	272	28 17 20 N 115 35 45 W	9:35 AM	49	Coralline, sand, shell
1251-41 D-1	26	5½ mi. S. of San Benito Islands, Mexico	28 13 00 N 115 33 30 W	10:11 AM	81	52	28 13 18 N 115 33 15 W	10:30 AM	66	Fine green sand and gray
1251-41 D-2	26	5½ mi. S. of San Benito Islands, Mexico	28 12 35 N 115 34 35 W	10:50 AM	79	299	28 13 55 N 115 35 05 W	11:10 AM	59	Gray, coarse sand

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Feb. 1941										
1252-41	26	8½ mi. S. of San Benito Islands, Mexico	28 10 25 N 115 34 15 W	12:39 PM	71	189	28 10 00 N 115 34 20 W	12:56 PM	72	Coral sand, fine pebbles
1253-41	26	8 mi. W. of Cedros Island, Mexico	28 05 50 N 115 31 00 W	1:30 PM	64	251	28 05 45 N 115 31 35 W	1:50 PM	65	Gravel, loose rock
1254-41	26	8 mi. SW. of Cedros Island, Mexico	28 00 17 N 115 28 43 W	2:29 PM	63	220	28 00 00 N 115 29 00 W	2:49 PM	65	Green, fine sand, coral
1255-41	26	South Bay Landing, Cedros Island, Mexico	28 04 00 N 115 20 10 W	4:00 PM	Beach		28 04 00 N 115 20 10 W	6:00 PM	Beach	Rock
1256-41	27	8½ mi. S. of Cedros Island, Mexico	27 55 20 N 115 21 32 W	9:19 AM	55	123	27 54 58 N 115 21 05 W	9:40 AM	52	Fine green-gray mud, small shell
1257-41	27	3 mi. NW. of Natividad Island, Mexico	27 55 53 N 115 15 58 W	10:19 AM	30	23	27 56 05 N 115 16 00 W	10:33 AM	31	Coarse sand, sponge-covered rocks
1258-41	27	7½ mi. SSW. of Natividad Island, Mexico	27 44 17 N 115 14 20 W	11:37 AM	66	270.	27 44 17 N 115 14 40 W	11:55 AM	63	Loose rock, coral
1259-41	27	8½ mi. S. of Dewey Channel, Mexico	27 42 00 N 115 05 15 W	12:42 PM	49	16	27 42 15 N 115 05 02 W	1:04 PM	49	Sand, broken shell, gravel, Temp. 54° F.
1260-41	D-1	Dewey Chnl., opp. San Eugenio Point, Mexico	27 49 50 N 115 06 05 W	1:55 PM	23	180	27 49 35 N 115 06 00 W	2:04 PM	26	Coralline, rock
1260-41	D-2	Dewey Chnl., opp. San Eugenio Point, Mexico	27 49 32 N 115 06 15 W	2:14 PM	21	359	27 49 40 N 115 06 20 W	2:26 PM	24	Coralline, rock, Temp. 59° F.
1261-41	D-1	4 mi. N. of Dewey Channel, Mexico	27 54 15 N 115 06 40 W	2:56 PM	24	266	27 54 15 N 115 07 00 W	3:03 PM	25	Gray-green sand
1261-41	D-2	4 mi. N. of Dewey Channel, Mexico	27 54 15 N 115 07 00 W	3:15 PM	24	270	27 54 15 N 115 07 25 W	3:52 PM	25	Gray-green sand
1262-41	28	1½ mi. off N. end of Cedros Island, Mexico	28 21 10 N 115 11 47 W	8:00 AM	20		28 21 10 N 115 11 47 W	11:30 AM	25	Fine broken shell, Small dredge
1263-41	28	1½ mi. off N. end of Cedros Island, Mexico	28 22 18 N 115 11 00 W	8:00 AM	45		28 22 18 N 115 11 00 W	11:00 AM	55	Fine sand, broken shell, Small dredge

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Feb. 1941										
1264-41	28	1½ mi. off N. end of Cedros Island, Mexico	28 23 20 N 115 11 52 W	8:00 AM	55		28 23 20 N 115 11 52 W	11:00 AM	60	Shale, pebbles. Small dredge
1265-41		2 mi. SE. of Cedros Island Light, Mexico	28 20 35 N 115 10 10 W	2:25 PM	55	76	28 20 45 N 115 09 45 W	2:45 PM	55	Green & brown sand
1265-41		2 mi. SE. of Cedros Island Light, Mexico	28 21 05 N 115 10 45 W	3:10 PM	47	54	28 21 25 N 115 10 17 W	3:28 PM	51	Green & brown sand
ALLAN HANCOCK CRUISES OF SPRING, SUMMER, AND FALL, 1941										
California										
Mar. 1941										
1266-41	16	Anacapa Island	34 00 30 N 119 24 15 W	6:00 AM	Beach	270	34 00 30 N 119 24 30 W	7:15 AM	Shore	Shore rocky, mussels, barnacles, sea stars
1267-41		3 mi. NW. of Anacapa Island Light	34 02 30 N 119 24 30 W	8:00 AM	47	45	34 02 35 N 119 24 15 W	8:13 AM	47	Gray-green sand, Temp. 56° F.
1267-41		2½ mi. NW. of Anacapa Island Light	34 02 45 N 119 23 35 W	8:27 AM	51	90	34 03 00 N 119 23 45 W	8:44 AM	52	Gray-green sand, Temp. 54° F.
1268-41	16	2½ mi. NW. of Anacapa Island Light	34 03 00 N 119 23 50 W	8:55 AM	51		34 03 00 N 119 23 50 W	9:20 AM	48	Gray-green sand
1269-41		1 mi. W. NW. of Anacapa Island	34 01 25 N 119 27 20 W	9:43 AM	41	360	34 02 00 N 119 27 30 W	10:00 AM	43	Rock, sponge
1269-41		½ mi. NW. of Anacapa Island	34 01 20 N 119 27 10 W	10:15 AM	37	315	34 01 35 N 119 27 25 W	10:35 AM	40	Gray-green sand
1270-41	16	½ mi. S. of West end of Anacapa Island	34 00 05 N 119 26 40 W	10:35 AM	25		34 00 05 N 119 26 40 W	11:05 AM	26	Coralline, rock
1271-41	16	¾ mi. SE. of Cat Rock, Anacapa Island	33 59 50 N 119 24 30 W	11:22 AM	23		33 59 50 N 119 24 30 W	11:30 AM	25	Coralline, gray coarse sand
1272-41	23	6½ mi. N. of Anacapa Island Lighthouse	34 07 20 N 119 23 15 W	8:37 AM	125	135	34 07 00 N 119 22 45 W	9:08 AM	124	Gray sand
1273-41	23	5 mi. NE. of Anacapa Island Lighthouse	34 05 10 N 119 18 00 W	9:45 AM	125	225	34 05 00 N 119 18 15 W	10:13 AM	135	Coarse sand

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Mar. 1941										
1274-41	23	3½ mi. S. of Hueneme	34 05 30 N 119 12 40 W	10:40 AM	29		34 05 30 N 119 12 40 W	10:50 AM	30	Shell, mud, Temp. 56° F.
1275-41	23	1½ mi. SE. of Point Mugu	34 04 00 N 119 02 45 W	11:50 AM	26	135	34 03 45 N 119 02 30 W	12:00 M	30	Mud, Temp. 56° F.
1276-41		10¼ mi. W. of Point Dume	34 00 20 N 119 01 20 W	12:40 PM	47	180	34 00 00 N 119 01 20 W	12:50 PM	48	Loose rock, sponge
1276-41	23	10¼ mi. W. of Point Dume	34 00 10 N 119 01 30 W	1:09 PM	47	360	34 00 15 N 119 01 30 W	1:29 PM	48	Loose rock, sponge
April 1941										
1277-41	9	San Miguel Island Anchorage	34 03 35 N 120 20 50 W		22					Rocky—fishing from <i>Velero III</i>
1278-41	10	1 mi. NE. of San Miguel Island	34 05 15 N 120 20 40 W	9:35 AM	35	315	34 05 40 N 120 20 55 W	9:45 AM	39	Fine broken shell
1279-41	10	1.8 mi. NE. of San Miguel Island	34 05 50 N 120 20 25 W	10:00 AM	40	45	34 06 10 N 120 20 00 W	10:15 AM	47	Rocky
1280-41	10	2½ mi. E. of S. Point, Santa Rosa Island	33 53 30 N 120 03 30 W	2:20 PM	15	135	33 53 25 N 120 03 25 W	2:30 PM	21	Shell, red algae
1281-41	10	3 mi. E. of S. Point, Santa Rosa Island	33 53 30 N 120 02 55 W	2:42 PM	23	90	33 53 30 N 120 02 40 W	3:00 PM	26	Sand, nullipores
1282-41	10	2½ mi. E. of S. Point, Santa Rosa Island	33 53 45 N 120 03 40 W	3:15 PM	17	135	33 53 45 N 120 03 40 W	3:30 PM	18	Gravel, red algae
1283-41	10	2¼ mi. E. of S. Point, Santa Rosa Island	33 53 20 N 120 03 50 W	3:50 PM	23	135	33 53 15 N 120 03 30 W	4:07 PM	28	Gravel, sand
1284-41	10	1 mi. S. of E. Point, Santa Rosa Island	33 55 30 N 119 58 30 W	4:38 PM	15		33 55 30 N 119 58 30 W	4:48 PM	16	Loose rock, sand, nullipores
1285-41	11	3 mi. SW. of Fraser Point, Santa Cruz Island	34 02 00 N 119 59 00 W	8:20 AM	15	90	34 02 00 N 119 58 45 W	8:27 AM	19	Fine sand, nullipores, <i>Ophiolithrix</i>

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks	
			Position	Time	Fms.	Dir.	Position	Time		Fms.
April 1941										
1286-41	11	3 mi. S. of Fraser Point, Santa Cruz Island	34 00 40 N 119 57 00 W	8:50 AM	20	90	34 00 40 N 119 56 45 W	9:07 AM	24	Sand, shell, nullipores
1287-41	11	3½ mi. S. of Fraser Point, Santa Cruz Island	34 00 00 N 119 56 40 W	9:24 AM	25	90	34 00 00 N 119 56 25 W	9:37 AM	28	Sand, broken shell
1288-41	11	5 mi. S. of Fraser Point, Santa Cruz Island	33 58 20 N 119 55 00 W	10:00 AM	103	180	33 57 40 N 119 54 55 W	10:28 AM	74	Green mud, Temp. 49° F.
1289-41	11	2.6 mi. E. of E. Point, Santa Rosa Island	33 56 05 N 119 54 50 W	11:15 AM	47	225	33 55 50 N 119 55 00 W	11:32 AM	49	Green mud
1290-41	11	4.2 mi. SE. of E. Point, Santa Rosa Island	33 53 10 N 119 55 00 W	12:48 PM	51		33 53 10 N 119 55 00 W	1:04 PM	53	Green mud
1291-41	11	6¼ mi. SE. of S. Point, Santa Rosa Island	33 51 00 N 120 00 20 W	1:34 PM	46		33 51 00 N 120 00 20 W	1:50 PM	46	Rocky, Alcyonarians
1292-41	11	6 mi. E. of S. Point, Santa Rosa Island	33 53 30 N 120 00 00 W	2:08 PM	28	90	33 53 30 N 119 59 40 W	2:20 PM	30	Rocky
1293-41	11	3½ mi. E. of S. Point, Santa Rosa Island	33 53 20 N 119 58 00 W	2:42 PM	35	90	33 53 20 N 119 57 55 W	2:53 PM	38	Sand, rock
1294-41	11	½ mi. S. of Gull Island, Santa Cruz Island	33 56 30 N 119 49 40 W	3:38 PM	34	90	33 56 30 N 119 49 35 W	4:00 PM	41	Sand, shell
1295-41	D-1	1 mi. SE. of Smugglers Cove, Santa Cruz Island	34 00 25 N 119 31 30 W	8:37 AM	15	360	34 00 35 N 119 31 30 W	8:42 AM	21	Coralline, sand, pebbles
1295-41	D-2	1 mi. SE. of Smugglers Cove, Santa Cruz Island	34 00 30 N 119 31 30 W	8:42 AM	17	360	34 00 40 N 119 31 35 W	9:04 AM	19	Coralline, sand, pebbles
1296-41	12	1 mi. E. of Smugglers Cove, Santa Cruz Island	34 01 10 N 119 31 20 W	9:15 AM	20	360	34 01 20 N 119 31 20 W	9:25 AM	19	Rock, kelp
1297-41	12	¼ mi. E. of San Pedro Point, Santa Cruz Island	34 02 00 N 119 30 35 W	9:38 AM	26	45	34 02 15 N 119 30 05 W	9:58 AM	40	Rocky
1298-41	12	1 mi. N. of San Pedro Point, Santa Cruz Island	34 03 20 N 119 30 40 W	10:10 AM	45	270	34 03 20 N 119 30 40 W	10:28 AM	46	Sand, broken shell

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks	
			Position	Time	Fmts.	Dir.	Position	Time		Fmts.
April 1941										
1299-41	12	3 mi. NW. of San Pedro Point, Santa Cruz Island	34 05 00 N 119 32 35 W	10:45 AM	65	225	34 04 55 N 119 32 40 W	11:05 AM	80	Green mud, Temp. 49° F.
1300-41	12	1½ mi. NW. of Cavern Point, Santa Cruz Island	34 04 35 N 119 34 15 W	11:20 AM	54	315	34 04 40 N 119 34 30 W	11:45 AM	56	Mud, sand, dead shell
1301-41	12	0.3 mi. NW. of Pelican Bay, Santa Cruz Island	34 02 10 N 119 41 50 W	2:50 PM	35	45	34 02 20 N 119 41 40 W	3:00 PM	39	Mud, brittle stars
1302-41	12	½ mi. NE. of Platt Harbor, Santa Cruz Island	34 03 25 N 119 43 30 W	3:18 PM	31	135	34 03 20 N 119 43 20 W	3:43 PM	37	Green mud
1303-41	12	½ mi. N. of Platt Point, Santa Cruz Island	34 03 50 N 119 45 25 W	3:55 PM	36	360	34 03 55 N 119 45 25 W	4:07 PM	47	Dead shell
1304-41	12	3 mi. E. of Arch Rock, Santa Cruz Island	34 06 25 N 119 48 40 W	4:42 PM	60	135	34 06 20 N 119 48 25 W	4:56 PM	55	Mud, broken shell
1305-41	13	Prisoner's Harbor, Santa Cruz Island	34 01 25 N 119 41 05 W						8	Set Line
May 1941										
1306-41	D-1	7 mi. E. of Long Point, Santa Catalina Island	33 24 40 N 118 13 35 W	10:15 AM	228	270	33 25 00 N 118 14 30 W	11:00 AM	267	Rock
1306-41	D-2	7 mi. E. of Long Point, Santa Catalina Island	33 24 40 N 118 13 35 W	11:25 AM	228	270	33 24 25 N 118 14 15 W	12:00 M	267	Rock, black sand
1306-41	D-3	7 mi. E. of Long Point, Santa Catalina Island	33 24 40 N 118 13 35 W	12:35 PM	228	315	33 24 45 N 118 14 00 W	1:20 PM	267	Rock
1307-41	D-1	2.8 mi. WNW. of Long Point, Santa Catalina Isl.	33 26 00 N 118 24 40 W	2:42 PM	68	360	33 26 15 N 118 24 40 W	3:10 PM	88	
1307-41	D-2	2.8 mi. WNW. of Long Point, Santa Catalina Isl.	33 26 00 N 118 24 40 W	3:15 PM	64	315	33 26 05 N 118 24 50 W	3:30 PM	69	Gray sand
1308-41	3	3.5 mi. WNW. of Long Point, Santa Catalina Isl.	33 26 20 N 118 25 20 W	3:50 PM	70	225	33 26 10 N 118 25 30 W	4:05 PM	51	Sand, fine broken shell

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
May 1941										
1309-41	3	3.5 mi. WNW. of Long Point, Santa Catalina Isl.	33 26 00 N 118 25 35 W	4:15 PM	40		33 26 00 N 118 25 35 W	4:30 PM	40	Lamp Shells
1310-41	4	Fourth of July Cove, Santa Catalina Island	33 26 50 N 118 30 00 W	8:50 AM	Shore		33 26 50 N 118 30 00 W	9:50 AM	Shore	Loose rocks cov. with barnacles, worm tubes
1311-41	4	1½ mi. SE. of W. end of Santa Catalina Island	33 27 20 N 118 35 35 W	11:00 AM	40		33 27 20 N 118 35 35 W	11:10 AM	50	Sand, sticky mud.
1312-41	4	½ mi. SW. of Ribbon Rock, Santa Catalina Isl.	33 26 05 N 118 34 50 W	11:28 AM	51	270	33 26 05 N 118 35 00 W	11:50 AM	56	Mud
1313-41	4	1¾ mi. W. of Catalina Head, Santa Catalina Isl.	33 25 40 N 118 32 30 W	12:48 PM	50	270	33 25 25 N 118 33 00 W	1:05 PM	51	Mud
1314-41	4	1¾ mi. S. of Catalina Head, Santa Catalina Isl.	33 23 40 N 118 30 45 W	1:28 PM	90	225	33 23 30 N 118 30 50 W	1:50 PM	104	Mud
1315-41	15	Olive Mill Road, Montecito	34 25 00 N 119 38 25 W	5:00 AM		90	34 25 00 N 119 38 00 W	9:00 AM	Shore	Algae covered. Rocks underlaid with sand
1316-41 D-1	17	1 mi. SW. of Ben Weston Point, Santa Catalina Isl.	33 20 55 N 118 30 25 W	12:50 PM	45	315	33 21 15 N 118 30 45 W	1:10 PM	49	Mud, sand, gravel
1316-41 D-2	17	1 mi. SW. of Ben Weston Point, Santa Catalina Isl.	33 20 55 N 118 30 25 W	1:22 PM	45	270	33 20 55 N 118 30 35 W	1:40 PM	46	Mud, sand, gravel
1317-41	17	3.2 mi. S. of Ben Weston Point, Santa Catalina Isl.	33 18 05 N 118 29 30 W	2:35 PM	175	45	33 18 35 N 118 29 25 W	3:18 PM	115	Loose rock, gravel
1318-41	17	4½ mi. W. of Church Rock, Santa Catalina Isl.	33 18 00 N 118 25 00 W	3:40 PM	50	270	33 18 05 N 118 25 20 W	4:10 PM	51	Sticky mud
1319-41	18	¾ mi. E. of Church Rock, Santa Catalina Isl.	33 18 00 N 118 15 20 W	8:50 AM	103	45	33 18 10 N 118 14 50 W	9:28 AM	107	Sand
1320-41	18	3 mi. WNW. of Church Rock, Santa Catalina Isl.	33 18 50 N 118 23 05 W	10:10 AM	18	180	33 18 35 N 118 23 05 W	10:22 AM	23	Rock, mud
1321-41	18	2 mi. W. of Church Rock, Santa Catalina Island	33 17 40 N 118 21 55 W	10:40 AM	45	180	33 17 25 N 118 21 50 W	10:55 AM	53	Mud, sand

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks	
			Position	Time	Fms.	Dir.	Position	Time		Fms.
May 1941										
1322-41	18	3 mi. SE. of Church Rock, Santa Catalina Island	33 16 00 N 118 16 40 W	11:25 AM	105	315	33 16 20 N 118 16 45 W	11:55 AM	100	Fine gray sand
1323-41	18	7 mi. WSW. of Church Rock, Santa Catalina Isl.	33 14 40 N 118 12 15 W	12:50 PM	155	90	33 14 40 N 118 11 10 W	1:26 PM	152	Loose rock
1324-41	18	7 mi. WSW. of Church Rock, Santa Catalina Isl.	33 15 45 N 118 11 30 W	1:45 PM	168	315	33 16 00 N 118 11 55 W	2:35 PM	152	Rocky
1325-41	18	2½ mi. SE. of Church Rock, Santa Catalina Isl.	33 17 00 N 118 16 40 W	3:00 PM	61	45	33 17 15 N 118 16 30 W	3:20 PM	59	Rock, broken shell
June 1941										
1326-41	8	1 mi. NE. of Castle Rock, San Clemente Island	33 03 15 N 118 36 20 W	2:00 PM	50	180	33 03 00 N 118 36 20 W	2:25 PM	46	Gray sand
1327-41	8	½ mi. W. of Castle Rock, San Clemente Island	33 02 00 N 118 37 20 W	2:40 PM	22	270	33 02 00 N 118 37 35 W	3:00 PM	37	Fine broken shell
1328-41	8	1 mi. SW. of Castle Rock, San Clemente Island	33 01 40 N 118 37 40 W	3:10 PM	40	270	33 01 40 N 118 37 55 W	3:25 PM	46	Black sand
1329-41	8	2 mi. SW. of Castle Rock, San Clemente Island	33 01 00 N 118 38 45 W	3:45 PM	65	270	33 01 00 N 118 39 10 W	4:10 PM	107	Black sand
1330-41	9	4 mi. NE. of Buoy, Cortes Bank	32 29 45 N 119 05 00 W	9:50 AM	60	135	32 29 40 N 119 04 30 W	10:10 AM	59	Sand, broken shell, loose rock
1331-41	9	Wilson Cove, San Clemente Island	33 00 20 N 118 33 15 W	4:30 AM	25				4	Fishing from <i>Velero</i> <i>III</i> & Lobster Pots
1332-41	9	3 mi. E. of Buoy, Cortes Bank	32 26 30 N 119 03 30 W	10:32 AM	48	360	32 26 45 N 119 03 30 W	10:47 AM	51	Sand, broken shell
1333-41	9	6 mi. ESE. of Buoy, Cortes Bank	32 24 15 N 119 00 30 W	11:15 AM	56		32 24 15 N 119 00 30 W	11:35 AM	56	Sand, broken shell
1334-41	9	4¾ mi. SE. of Buoy, Cortes Bank	32 24 00 N 119 02 30 W	12:40 PM	125	180	32 23 45 N 119 02 30 W	1:15 PM	131	Sand

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
June 1941										
1335-41	9	1 mi. SW. of Buoy, Cortes Bank	32 25 50 N 119 07 30 W	1:40 PM	32	225	32 25 30 N 119 08 00 W	1:54 PM	32	Broken shell, coralline
1336-41	9	2 mi. NW. of Buoy, Cortes Bank	32 27 45 N 119 09 15 W	2:25 PM	45	180	32 27 30 N 119 09 15 W	2:42 PM	42	Fine sand, broken rock
1337-41	10	Wilson Cove, San Clemente Island	33 00 30 N 118 33 30 W	4:00 AM	25			6:00 AM	4	Lobster traps, setline, kelp holdfast
1338-41	10	Tanner Bank	32 42 45 N 119 06 00 W	9:05 AM	55		32 42 45 N 119 06 00 W	9:22 AM	51	Black sand, broken shell
1339-41	10	Tanner Bank	32 41 30 N 119 06 35 W	9:35 AM	25		32 41 30 N 119 06 35 W	9:55 AM	28	Rock, coralline
1340-41	10	Tanner Bank	32 41 00 N 119 06 30 W	10:05 AM	40		32 41 00 N 119 06 30 W	10:20 AM	38	Gray sand, rock
1340-41	10	Tanner Bank	32 41 00 N 119 06 30 W	10:30 AM	37		32 41 00 N 119 06 30 W	10:50 AM	38	Loose rock
1340-41	10	Tanner Bank	32 41 00 N 119 06 30 W	10:58 AM	38		32 41 00 N 119 06 30 W	11:20 AM	38	Loose rock
1341-41	10	4½ mi. NNW. of Buoy, Cortes Bank	32 30 45 N 119 09 30 W	12:25 PM	60	180	32 30 30 N 119 09 30 W	12:45 PM	61	Black sand, rock
1342-41	10	9¼ mi. NW. of Buoy, Cortes Bank	32 33 15 N 119 15 15 W	1:20 PM	50		32 33 15 N 119 15 15 W	1:38 PM	50	White sand, rock
1343-41	10	9½ mi. NNW. of Buoy, Cortes Bank	32 35 00 N 119 11 45 W	2:00 PM	90		32 35 00 N 119 11 55 W	2:55 PM	110	Fine green sand, gravel
1344-41	11	20 mi. S. of San Nicolas Island	32 53 00 N 119 25 00 W	8:20 AM	65		32 53 00 N 119 25 00 W	8:40 AM	65	Rocky
1344-41	11	22 mi. S. of San Nicolas Island	32 51 00 N 119 23 45 W	8:55 AM	75		32 51 00 N 119 23 45 W	9:18 AM	75	Rocky
1345-41	11	18½ mi. S. of San Nicolas Island	32 54 30 N 119 26 50 W	9:50 AM	57		32 54 30 N 119 26 50 W	10:10 AM	57	Rocky

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks	
			Position	Time	Fms.	Dir.	Position	Time		Fms.
June 1941										
1346-41	11	9½ mi. SW. of Tanner Bank	32 36 30 N 119 20 00 W	12:50 PM	72		32 36 30 N 119 20 00 W	1:15 PM	72	Loose rock, coralline
1347-41	11	11 mi. NW. of Buoy, Cortes Bank	32 32 30 N 119 18 10 W	1:40 PM	45	90	32 32 30 N 119 17 50 W	1:55 PM	46	Coralline
1348-41	11	Tanner Bank	32 43 00 N 119 11 40 W	2:55 PM	46		32 43 00 N 119 11 40 W	3:15 PM	45	Rocky
1349-41	12	4 mi. SE. of Church Rock, Santa Catalina Island	33 16 00 N 118 15 00 W	10:10 AM	116	180	33 15 45 N 118 15 00 W	10:40 AM	109	Sand, loose rock, sponge
1350-41	12	5 mi. SE. of Church Rock, Santa Catalina Island	33 16 00 N 118 13 30 W	10:50 AM	117	270	33 16 00 N 118 13 45 W	11:30 AM	118	Sand, loose washed rock
1351-41	12	7½ mi. ESE. of Church Rock, Santa Catalina Isl.	33 14 40 N 118 11 15 W	11:50 AM	152	315	33 14 45 N 118 11 30 W	12:50 PM	152	Sand
1352-41	12	6 mi. E. of Church Rock, Santa Catalina Island	33 16 45 N 118 12 20 W	1:15 PM	170	45	33 17 15 N 118 12 15 W	1:55 PM	192	Gray-green sand
1353-41	12	4 mi. E. of Church Rock, Santa Catalina Island	33 17 20 N 118 14 00 W	2:15 PM	102	360	33 17 45 N 118 14 00 W	2:45 PM	116	Gray-green sand
1354-41	12	2½ mi. SE. of Church Rock, Santa Catalina Isl.	33 16 40 N 118 17 10 W	3:00 PM	60	135	33 16 30 N 118 17 00 W	3:25 PM	80	Sand, dead shell
1355-41	12	4 mi. E. of Church Rock, Santa Catalina Island	33 18 30 N 118 15 00 W	3:45 PM	106	135	33 18 25 N 118 14 45 W	4:10 PM	110	Gray sand
1356-41	12	¾ mi. E. of Abalone Point, Santa Catalina Isl.	33 20 20 N 118 18 30 W	4:50 PM	44	360	33 20 30 N 118 18 30 W	5:05 PM	46	Mud, kelp
1357-41	12	Anchorage, White Cove, Santa Catalina Island	33 23 25 N 118 21 50 W	6:30 PM	21			11:10 PM		Fishing under the gangway light
1358-41	13	1 mi. E. of White Cove, Santa Catalina Island	33 23 30 N 118 20 50 W	8:30 AM	36	90	33 23 30 N 118 20 45 W	8:45 AM	38	Lampshells, mud
1359-41	13	1¾ mi. E. of White Cove, Santa Catalina Island	33 23 40 N 118 20 00 W	9:05 AM	100	90	33 23 40 N 118 19 50 W	9:35 AM	108	Gray sand, broken shell

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
June 1941										
1360-41	13	2½ mi. E. of Long Point, Santa Catalina Island	33 24 25 N 118 19 15 W	9:45 AM	182	68	33 24 30 N 118 18 55 W	10:30 AM	225	Mud
July 1941										
1361-41	11	Off Willow Cove, Santa Catalina Island	33 22 55 N 118 20 30 W		35-45					
1362-41	11	Off Willow Cove, Santa Catalina Island	33 22 50 N 118 21 15 W		15-25					
1363-41	12	White Cove, Santa Catalina Island			Shore					
1364-41	13	Off Goat Harbor, Santa Catalina Island	33 25 15 N 118 24 08 W		30					
1365-41	13	Off Goat Harbor, Santa Catalina Island	33 25 14 N 118 23 55 W		21					
1366-41	18	1 mi. E. of Long Point, Santa Catalina Island	33 24 25 N 118 21 00 W	10:50 AM	107		33 24 25 N 118 21 00 W	11:20 AM	107	Green mud Kelp from shore rocks
1367-41	18	White Cove, Santa Catalina Island		3:00 PM	Shore					Mud flats at low tide
1368-41	19	Isthmus Catalina Harbor, Santa Catalina Island	33 25 55 N 118 30 05 W	12:30 PM	Shore					Worm tubes, broken shell
1369-41	19	1 mi. E. of Empire Land- ing, Santa Catalina Island	33 25 30 N 118 24 45 W	3:30 PM	15-20					Rocks north of pier, kelp holdfasts
1370-41	20	White Cove, Santa Catalina Island	33 23 40 N 118 22 10 W	11:00 AM	Shore					
1371-41	20	1¼ mi. NW. of Long Point, Santa Catalina Isl.	33 25 30 N 118 22 55 W	1:50 PM	77	360	33 25 40 N 118 22 55 W	2:20 PM	115	Coarse gray sand
1372-41	20	¾ mi. E. of Empire Land- ing, Santa Catalina Island	33 25 50 N 118 24 50 W	2:30 PM	46	360	33 26 00 N 118 24 50 W	2:50 PM	57	Fine green sand

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks	
			Position	Time	Fms.	Dir.	Position	Time		Fms.
Aug. 1941										
1373-41	2	Off White Cove, Santa Catalina Island	33 24 10 N 118 20 25 W	4:40 PM	105		33 24 10 N 118 20 25 W	5:16 PM	105	Gray sand
1374-41	3	1 mi. E. of Empire Land- ing, Santa Catalina Island	33 25 45 N 118 25 10 W	10:30 AM	22		33 24 10 N 118 20 25 W			Broken shell, coarse sand
1375-41	3	1 mi. E. of Empire Land- ing, Santa Catalina Island	33 25 45 N 118 25 15 W	11:20 AM	18		33 24 10 N 118 20 25 W			Worm tubes, kelp
1376-41	3	Off Avalon, Santa Catalina Island	33 21 10 N 118 17 40 W	4:20 PM	83		33 24 10 N 118 20 25 W	4:40 PM		Gray sand
1377-41	3	Off Avalon, Santa Catalina Island	33 21 03 N 118 19 55 W	5:00 PM	55			5:15 PM		Gray sand
1378-41	4	1 mi. NW. of White Cove, Santa Catalina Island	33 24 20 N 118 22 00 W	10:00 AM	2-3					Mask diving for kelp holdfasts
1379-41	4	Santa Catalina Channel	33 33 00 N 118 10 00 W	3:25 PM	84			4:00 PM	95	Gray sand, mud
1380-41	8	8½ mi. E. of Long Point, Santa Catalina Island	33 24 10 N 118 13 20 W	4:03 PM	228		33 21 40 N 118 11 25 W	4:55 PM	228	Mud, rock
1381-41	9	½ mi. off White Cove, Santa Catalina Island	33 23 30 N 118 22 04 W	10:00 AM	33		33 23 30 N 118 22 02 W	12:00 M	37	Kelp, rocks, sea fans, urchins, fish, sponge
1382-41	10	Beach close in by Buoy, Wh. Cove, S. Catalina Isl.	33 23 04 N 118 20 40 W	7:00 AM	2		33 23 30 N 118 21 00 W	8:00 AM	3	Mud, sand, sticks, leaf debris
1383-41	10	E. of Long Point, Santa Catalina Island	33 23 40 N 118 20 04 W	9:00 AM	45		33 24 02 N 118 21 22 W	11:00 AM	50	Sponges, lamp shells
1384-41	10	½ mi. NE. of Long Point, Santa Catalina Island	33 24 30 N 118 21 30 W	2:27 PM	108		33 00 10 N 118 21 40 W	2:50 PM	109	Green, sandy mud
1385-41 D-1	25	16½ mi. SSE. of E. Point, Santa Rosa Island	33 41 00 N 119 52 58 W	10:30 AM	75		33 40 55 N 119 52 30 W	10:50 AM	76	Rocks, crinoids, sponges

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
Aug. 1941										
1385-41 D-2	25	13 mi. SSE. of E. Point, Santa Rosa Island	33 44 32 N 119 52 30 W	11:26 AM	71		33 44 32 N 119 50 10 W	11:56 AM	75	Rocks, crinoids, brittle stars
1386-41	25	7 mi. SE. of E. Point, Santa Rosa Island	33 51 00 N 119 54 20 W	12:38 PM	104		33 53 55 N 119 53 55 W	1:10 PM	115	Mud, rocks, brittle stars
1387-41	25	4½ mi. SE. of E. Point, Santa Rosa Island	33 54 05 N 119 54 30 W	1:35 PM	52		33 53 56 N 119 53 45 W	1:55 PM	52	Green, sandy mud
1388-41 D-1	25	3.6 mi. off E. Point, Santa Rosa Island	33 54 30 N 119 54 28 W	2:13 PM	54		33 54 05 N 119 54 30 W	2:35 PM	52	Blake trawl on mud
1388-41 D-2	25	3.6 mi. off E. Point, Santa Rosa Island	33 54 05 N 119 54 25 W	2:48 PM	54		33 54 25 N 119 54 30 W	3:15 PM	55	Blake trawl, green mud, crinoids
1389-41	25	1 mi. NE. of Skunk Point, Santa Rosa Island	34 00 00 N 119 59 45 W	4:15 PM	14		34 00 00 N 119 59 00 W	4:30 PM	15	Blake trawl, sand, <i>Cancer</i> , algae
1390-41	26	4.5 mi. SW. x ½ W. of E. Point, Santa Rosa Island	33 51 30 N 120 05 00 W	9:12 AM	43		33 51 15 N 119 59 50 W	9:25 AM	45	Green mud
1391-41	26	4.6 mi. SW. x ½ W. of E. Point, Santa Rosa Island	33 51 10 N 119 59 40 W	9:35 AM	40		33 51 00 N 119 59 30 W	9:50 AM	40	Blake trawl, urchins, red algae
1392-41	26	6.5 mi. SE. x E. of S. Point, Santa Rosa Island	33 49 10 N 120 55 00 W	10:15 AM	57		33 48 55 N 120 54 45 W	10:33 AM	57	Rocks, green mud
1393-41 D-1	26	10 mi. SE. x ½ E. of S. Point, Santa Rosa Island	33 46 30 N 119 58 30 W	11:10 AM	125		33 46 20 N 119 58 15 W	11:35 AM	107	Mud
1393-41 D-2	26	10 mi. SE. x ½ E. of S. Point, Santa Rosa Island	33 48 30 N 119 59 00 W	1:18 PM	110		33 46 30 N 119 58 30 W	1:45 PM	115	Rock, gravel
1394-41	26	13 mi. SE. x ¼ S. of S. Point, Santa Rosa Island	33 43 00 N 119 58 00 W	2:20 PM	75			2:40 PM	73	Large rocks
1395-41	26	7.8 mi. S. of Santa Rosa Island	33 47 50 N 120 01 30 W	4:07 PM	70		33 47 30 N 120 02 00 W	4:27 PM	74	Blake trawl, crinoids
1396-41 D-1	27	2.5 mi. SE. of Bennett Point, San Miguel Island	33 59 10 N 120 25 10 W	9:18 AM	57		33 59 05 N 120 25 08 W	9:35 AM	57	Blake trawl, crinoids

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks	
			Position	Time	Fms.	Dir.	Position	Time		Fms.
Aug. 1941										
1396-41 D-2	27	2.5 mi. SE. of Bennett Point, San Miguel Island	33 59 40 N 120 25 10 W	9:55 AM	62		33 59 25 N 120 25 12 W	10:00 AM	62	Blake trawl, crinoids
1397-41	27	16.5 mi. SE.x.S. of S. Point, Santa Rosa Island	33 38 40 N 119 58 30 W	2:10 PM	77		33 38 35 N 119 58 05 W	2:30 PM	72	Rocks, crinoids, brittle stars
1398-41	28	4 mi. E. of landings, Santa Barbara Island	33 28 40 N 119 40 00 W	8:18 AM	40		33 28 35 N 119 30 00 W	8:30 AM	40	Blake trawl, sand, urchins
Sept. 1941										
1399-41	8	2 mi. SE. of Long Point, Santa Catalina Island	33 22 00 N 118 30 20 W	9:15 AM	47			10:30 AM		Small dredge boat. Trawl
1400-41 D-1	8	6¼ mi. NE.x.E. of Long Point, Santa Catalina Isl.	33 24 15 N 118 13 30 W	1:05 PM	228		33 25 00 N 118 13 45 W	1:20 PM		Rocks, sponges
1400-41 D-2	8	6¼ mi. E.NE.x.E. of Long Point, Santa Catalina Isl.	33 25 00 N 118 14 45 W	1:45 PM	267		33 25 20 N 118 14 40 W	2:15 PM		Rocks, cyclostomes
1401-41	8	6½ mi. ENE. of Long Point, Santa Catalina Isl.	33 25 30 N 118 14 50 W	2:45 PM	300		33 25 10 N 118 14 15 W	3:05 PM		Rocks, cyclostomes
1402-41 D-1	13	8 mi. E. of Long Point, Santa Catalina Island	33 24 25 N 118 14 00 W	9:34 AM	240	315	33 24 55 N 118 14 10 W	9:58 AM	267	Small rocks. Dredge
1402-41 D-2	13	8 mi. E. of Long Point, Santa Catalina Island	33 24 40 N 118 13 55 W	10:14 AM			33 24 00 N 118 13 25 W	11:04 AM		Small rocks. Dredge
1403-41 D-1	13	1 mi. E. of Willow Cove, Santa Catalina Island	33 22 50 N 118 19 45 W	11:49 AM	50	315	33 23 00 N 118 20 15 W		44	Small rocks. Dredge Sand, sea urchins. Blake trawl
1403-41 D-2	13	1 mi. ESE. of White Cove, Santa Catalina Island	33 23 35 N 118 20 15 W	1:30 PM	35	155	33 23 05 N 118 21 10 W	1:45 PM	34	Sand, sea urchins. Blake trawl
1404-41	13	1 mi. E. of Long Point, Santa Catalina Island	33 23 50 N 118 20 35 W	1:55 PM	87	325	33 24 20 N 118 20 35 W	2:23 PM	77	Sand, sea urchins. Blake trawl
1405-41	13	½ mi. E. of Long Point, Santa Catalina Island	33 23 45 N 118 21 30 W	3:53 PM	45	360	33 24 20 N 118 21 35 W	4:09 PM	50	Sand, sea urchins. Blake trawl
1406-41	14	N. side, White Cove, Santa Catalina Island	33 23 40 N 118 22 00 W	9:00 AM					Shore	On rocks near dock. Kelp

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks	
			Position	Time	Fms.	Dir.	Position	Time		Fms.
Sept. 1941										
1407-41	14	Long Point to Willow Cove, Santa Catalina Isl.	33 24 00 N 118 21 30 W	9:00 AM	30	322	33 22 15 N 118 20 30 W	11:00 AM	45	Sand, algae. Small dredge boat, 3 hauls
1408-41	14	8 mi. E. of Long Point, Santa Catalina Island	33 24 45 N 118 13 30 W	3:12 PM	228	50	33 25 40 N 118 12 40 W	3:58 PM	300	Small rocks, sand. Dredge
1409-41 D-1	15	1 mi. off E. side, Santa Barbara Island	33 28 40 N 119 00 30 W	8:45 AM	40	318	33 29 02 N 119 01 01 W	9:21 AM	20	Sand, sea urchins. Blake trawl
1409-41 D-2	15	1 mi. off E. side, Santa Barbara Island	33 28 18 N 119 00 50 W	9:27 AM	38	319	33 28 45 N 119 01 06 W	9:58 AM	26	Sand, sea urchins. Blake trawl
1409-41 D-3	15	1 mi. off E. side, Santa Barbara Island	33 28 18 N 119 00 40 W	10:19 AM	39	337	33 28 45 N 119 00 09 W	11:01 AM	28	Sand, sea urchins. Blake trawl
1410-41	15	3 mi. E. of S. Point, Santa Rosa Island	34 53 35 N 120 03 15 W	4:30 PM	20	338	34 54 05 N 120 03 30 W	4:44 PM	17	Sand, kelp. Blake trawl
1411-41 D-1	16	1 mi. S. of Point Bennett, San Miguel Island	34 00 50 N 120 27 20 W	8:50 AM	45	298	34 00 30 N 120 26 20 W	9:05 AM	48	Sand, shell. Blake trawl
1411-41 D-2	16	1½ mi. SW. of Judith Rock, San Miguel Island	34 00 10 N 120 25 45 W	9:30 AM	44	283	34 00 10 N 120 25 20 W	9:45 AM	46	Sand, shell. Blake trawl
1411-41 D-3	16	1½ mi. SW. of Judith Rock, San Miguel Island	34 00 10 N 120 25 20 W	9:50 AM	46	228	34 00 11 N 120 25 10 W	10:00 AM	45	Soft sand. Dredge
1412-41 D-1	16	1½ mi. S. of Crook Point, San Miguel Island	33 59 20 N 120 22 20 W	10:25 AM	41	350	33 59 00 N 120 22 18 W	10:40 AM	43	Sand, shell. Blake trawl
1412-41 D-2	16	2 mi. S. of Crook Point, San Miguel Island	33 58 40 N 120 21 25 W	10:45 AM	43	285	33 58 40 N 120 22 00 W	11:00 AM	41	Sand, mud. Dredge
1413-41	16	2 mi. SW. of Cardwell Point, San Miguel Island	34 59 55 N 120 19 15 W	12:32 PM	35	30	34 00 00 N 120 19 10 W	12:58 PM	34	Mud. Dredge
1414-41	16	1 mi. S. of Cardwell Point, San Miguel Island	34 00 20 N 120 17 25 W	1:15 PM	15	276	34 00 20 N 120 18 15 W	1:43 PM	24	Mud
1415-41	16	1½ mi. E. of Cardwell Point, San Miguel Island	34 00 55 N 120 16 30 W	2:12 PM	21	112	34 00 45 N 120 15 00 W	2:24 PM	20	Sand, fl. rocks, brittle stars. Blake trawl

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks	
			Position	Time	Fms.	Dir.	Position	Time		Fms.
Sept. 1941										
1416-41	16	2½ mi. NE. of Cardwell Point, San Miguel Island	34 02 45 N 120 16 00 W	3:00 PM	30	90	34 03 15 N 120 16 00 W	3:15 PM	23	Sand, rocks. Blake trawl
1417-41	16	4¼ mi. NE. of Sandy Point, Santa Rosa Island	34 04 05 N 120 13 12 W	3:37 PM	36		34 04 30 N 120 13 14 W	3:50 PM	35	Flat rocks. Dredge
1418-41 D-1	17	3½ mi. NE. of San Pedro Point, Santa Cruz Island	34 03 20 N 119 28 15 W	10:10 AM	46	157	34 03 35 N 119 28 20 W	10:23 AM	47	Sand, sea urchins. Dredge
1418-41 D-2	17	3½ mi. NE. of San Pedro Point, Santa Cruz Island	34 03 35 N 119 28 20 W	10:30 AM	46	263	34 03 30 N 119 29 03 W	10:50 AM	47	Sand, sea urchins. Blake trawl
1419-41 D-1	17	1 mi. N. of W. end, Anacapa Island	34 02 00 N 119 26 40 W	11:18 AM	45	320	34 02 20 N 119 26 05 W	11:47 AM	46	Sand, sea urchins. Blake trawl
1419-41 D-2	17	1 mi. N. of W. end, Anacapa Island	34 01 55 N 119 26 40 W	12:46 PM	45	315	34 02 25 N 119 27 20 W	1:10 PM	47	Sand, sea urchins. Blake trawl
1420-41	17	1½ mi. N. of Light, Anacapa Island	34 02 30 N 119 21 10 W	2:10 PM	47	90	34 03 00 N 119 21 10 W	2:30 PM	77	Sand. Blake trawl
1421-41	17	2 mi. E. of W. Point, Anacapa Island	34 01 00 N 119 24 15 W	3:55 PM	35	216	34 01 10 N 119 24 05 W	4:10 PM		Rock, shell, sponge. Blake trawl
1422-41	28	7¼ mi. E. of Long Point, Santa Catalina Island	33 24 55 N 118 13 25 W	8:52 AM	228	320	33 25 25 N 118 13 30 W	9:16 AM	250	Green mud. Dredge
1423-41	28	7¼ mi. E. of Long Point, Santa Catalina Island	33 25 05 N 118 12 12 W	10:08 AM	228	320	33 25 05 N 118 12 12 W	10:23 AM	228	Rocks. Dredge
1424-41	28	6¾ mi. E. of Long Point, Santa Catalina Island	33 24 45 N 118 14 20 W	11:27 AM	267	180	33 23 50 N 118 14 20 W	11:44 AM	347	Rocks. Dredge
1425-41	28	11½ mi. SE. of Church Rock, Santa Catalina Isl.	33 13 00 W 118 30 20 W	2:37 PM	280	180	33 13 20 N 118 30 00 W	3:15 PM	280	Rocks. Dredge
1426-41	29	¼ mi. off shore, ½ mi. W. of Lng. Pt., S. Catalina Isl.	33 24 00 N 118 21 30 W	9:00 AM	21	360		10:00 AM	40	Sand, brachiopods. Small boat, trawl
1427-41	29	5½ mi. NE. of W. end, Santa Catalina Island	33 34 25 N 118 35 45 W	12:32 PM	286	180	33 34 00 N 118 35 15 W	1:06 PM	300	Rocks. Dredge

Station	Date	General Locality	Dredge Down		Dredge Up		Remarks
			Position	Fms.	Position	Fms.	
Sept. 1941							
1428-41	29	3 1/8 mi. NE. of W. end, Santa Catalina Island	33 31 35 N 118 34 50 W	2:05 PM	33 31 55 N 118 35 10 W	2:35 PM	Mud (washed out). Trawl
Oct. 1941							
1429-41	25	2 1/2 mi. SE. of Seal Rocks, Santa Catalina Island	33 17 20 N 118 15 35 W	11:14 AM	33 16 20 N 118 16 05 W	11:38 AM	(Rock) sponge, urchin, gorgonians
1429-41	D-1	2 1/2 mi. SE. of Seal Rocks, Santa Catalina Island	33 17 30 N 118 15 30 W	12:42 PM	33 17 05 N 118 15 20 W	12:58 PM	Rock
1429-41	D-2	2 1/2 mi. SE. of Seal Rocks, Santa Catalina Island	33 17 30 N 118 15 30 W	1:20 PM	33 17 05 N 118 15 45 W	1:38 PM	Rock, lumpy gray sand, hermits
1429-41	D-3	2 1/2 mi. SE. of Seal Rocks, Santa Catalina Island	33 17 30 N 118 15 55 W	2:25 PM	33 14 15 N 118 10 00 W	2:43 PM	Rock, sponge, <i>Munida</i> , crinoids
1430-41	D-1	7 1/4 mi. SE. of Seal Rocks, Santa Catalina Island	33 14 25 N 118 10 45 W	3:15 PM	33 14 15 N 118 10 45 W	4:48 PM	Large boulders
1430-41	D-2	7 1/4 mi. SE. of Seal Rocks, Santa Catalina Island	33 14 25 N 118 10 45 W	8:30 AM	33 23 22 N 118 22 10 W	10:30 AM	Algae, sand. Small dredge
1431-41	26	White Cove, Santa Catalina Island	33 23 32 N 118 22 10 W	AM	118 22 10 W	AM	Kelps from rocks N. of cove
1432-41	26	White Cove, Santa Catalina Island	33 23 40 N 118 22 05 W	11:00 AM	Shoal		
1433-41	26	1 1/4 mi. NE. of Long Point, Santa Catalina Island	33 25 45 N 118 21 20 W	11:51 AM	33 25 30 N 118 21 00 W	12:29 PM	Octopus, sea buns. Trawl on sand
1434-41	26	2 3/4 mi. N.x.W. of Long Point, Santa Catalina Isl.	33 26 00 N 118 22 30 W	12:58 PM	33 26 00 N 118 21 35 W	1:50 PM	Shrimp, sea urchins. Trawl on mud
Nov. 1941							
1435-41	8	1 1/2 mi. SW. of Gull Isl., off Santa Cruz Island	33 56 00 N 119 50 55 W	3:29 PM	33 56 00 N 119 50 55 W	3:44 PM	Mud, sponge
1436-41	9	2 3/4 mi. N. of W. Point, Santa Cruz Island	34 07 00 N 119 56 05 W	7:12 AM	34 07 00 N 119 56 05 W	7:21 AM	Mud, shell
1437-41	18	Flat Rock Point, S. of Redondo	33 47 50 N 118 24 25 W	1:00 PM	Intertidal -1.2' tide	4:30 PM	Rocky beach, boulders, kelp

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks
			Position	Time	Dir.	Position	Time	Fms.	
Nov. 1941									
1438-41	19	Corona del Mar (Newport Harbor)	33 36 04 N 117 52 48 W	1:00 PM	Intertidal -1.3' tide		4:30 PM		Rocks, sand flats
Dec. 1941									
1439-41	17	Flat Rock Point, S. of Redondo	33 47 50 N 118 24 25 W	1:10 PM	Intertidal -1.5' tide		4:30 PM		Rocky beach, kelp, sand
1440-41	18	Corona del Mar (Newport Harbor)	33 36 04 N 117 52 48 W	1:15 PM	Intertidal -1.6' tide		4:30 PM		Rocks, sand flats, eel grass
1441-41	17	Corona del Mar (Newport Harbor)	33 35 43 N 117 52 38 W	1:00 PM	Intertidal -1.5' tide	33 36 12 N 117 52 56 W	5:00 PM		Rocks, muddy, sand flats, eel grass
1442-41	18	Newport Bay, N. & E. of Highway 101, Bridge	33 36 58 N 117 54 12 W	12:30 PM	Intertidal -1.6' tide	33 37 12 N 117 53 25 W	5:00 PM		Sand flats, along shore
1443-41	19	Arch Rock, S. of Corona del Mar	33 35 00 N 117 51 40 W	2:00 PM	Intertidal -1.5' tide		5:00 PM		Rocky shore, eel grass beds

DISTRIBUTION CHARTS

19. Monterey Bay and Carmel Bay, California
20. Mugu Point Region, California
21. Anacapa Islands, Northern Channel Islands
22. Santa Cruz Island, Northern Channel Islands
23. Santa Rosa Island, Northern Channel Islands
24. San Miguel Island, Northern Channel Islands
25. Santa Monica Bay to Point Fermin, California
26. San Pedro Bay and Channel, from Point Fermin to Laguna
27. Santa Catalina Island, Southern Channel Islands
28. Long Point and White Cove, Santa Catalina Island
29. Santa Barbara Island, Southern Channel Islands
30. San Nicolas Island, Southern Channel Islands
31. San Clemente Island, Southern Channel Islands
32. Cortes and Tanner banks, southwest of San Clemente Island
33. Bank northwest of Tanner Bank, south of San Nicolas Island
34. From La Jolla, California, to Coronados Islands, Mexico
35. Todos Santos Bay, West coast of Lower California
36. San Quentin Bay, West coast of Lower California
37. Rosario Bay, West coast of Lower California
38. Lagoon Head, West coast of Lower California
39. Ranger Bank and San Benito Islands, West coast of Lower California
40. Cedros Island, West coast of Lower California
41. Natividad Island and Point San Eugenio, West coast of Lower California
42. Turtle Bay and Thurloe Bay, West coast of Lower California
43. San Juanico Bay, West coast of Lower California
44. Santa Maria Bay, West coast of Lower California
45. Cape San Lucas, Lower California
46. South coast of Socorro Island
47. Clarion Island
48. From San José del Cabo Bay to Fraile Bay, Gulf of California
49. Boca de la Trinidad, Gulf of California
50. Muertos Bay, Gulf of California
51. La Paz Bay, Gulf of California
52. San Lorenzo Channel and Espiritu Santo Island, Gulf of California
53. San Francisco Island, Gulf of California
54. Agua Verde Bay and Puerto Escondido, Gulf of California
55. Coronados Island, Mangles Anchorage, and Pulpito Point, Gulf of California

56. Ildefonso Island and Concepción Bay, Gulf of California
57. San Marcos Island and Tortuga Island, Gulf of California
58. San Francisquito Bay, Gulf of California
59. Angeles Bay, Isla Partida, and south end of Angel de la Guardia Island
60. Puerto Refugio, north end of Angel de la Guardia Island
61. Puerto Refugio (larger scale)
62. Gonzaga Bay and San Luis Island, Gulf of California
63. San Felipe Bay and Consag Rock, Gulf of California
64. Rocky Point and Georges Island, Gulf of California
65. Cape Tepoca and Cape Lobos, Gulf of California
66. Tiburon Island (southern part) and San Esteban Island, Gulf of California
67. San Pedro Nolasco Island, Ensenada de San Francisco, and Guaymas Bay
68. San Carlos Bay and San Ignacio Farallon, Gulf of California
69. Isabel Island and Tres Marias Islands, Mexico
70. Tenacatita Bay, Mexico
71. Petatlan Bay and White Friars Islands, Mexico
72. Chacahua Bay, Mexico
73. Tangola Tangola Bay, Mexico
74. Area near San José Light, Guatemala
75. Salinas Bay, Port Parker, and Playa Blanca Bay, Costa Rica
76. Port Culebra, Costa Rica
77. Gulf of Dulce, Costa Rica
78. Chatham Bay and Wafer Bay, Cocos Island
79. Secas Islands, Panama
80. Bahía Honda, Panama
81. Jicarita Island, Panama
82. Gulf of Panama, including Taboga Island
83. Piñas Bay, Panama
84. Octavia Bay and Cupica Bay, Colombia
85. Port Utria, Colombia
86. Cabita Bay, Colombia
87. Gorgona Island, Colombia
88. San Francisco Bay, Ecuador
89. Santa Elena Bay, Ecuador
90. Manta Bay, La Plata Island, and Salango Island, Ecuador
91. Sechura Bay, Peru
92. Lobos de Afuera Islands, Peru
93. Lobos de Tierra Island, Peru
94. Callao Region, Peru

95. Chincha Islands, Peru
96. Independencia Bay, Peru
97. Port San Nicolas and Port San Juan, Peru
98. Darwin Bay, Tower Island, Galapagos Islands
99. Abingdon Island and Bindloe Island, Galapagos Islands
100. Wenman Island, Galapagos Islands
101. Albemarle Island and Narborough Island, Galapagos Islands
102. Tagus Cove, Albemarle Island
103. James Island, Galapagos Islands
104. James Bay, James Island
105. Sullivan Bay, James Island
106. The Daphnes, the Seymours, Indefatigable, Duncan, and Barrington islands
107. Conway Bay, Indefatigable Island
108. Academy Bay, Indefatigable Island
109. Charles Island, Galapagos Islands
110. Black Beach Anchorage, Charles Island
111. Post Office Bay, Charles Island
112. Cormorant Bay and Onslow Island, Charles Island
113. Chatham Island, Galapagos Islands
114. Hood Island, Galapagos Islands
115. Gardner Bay, Hood Island

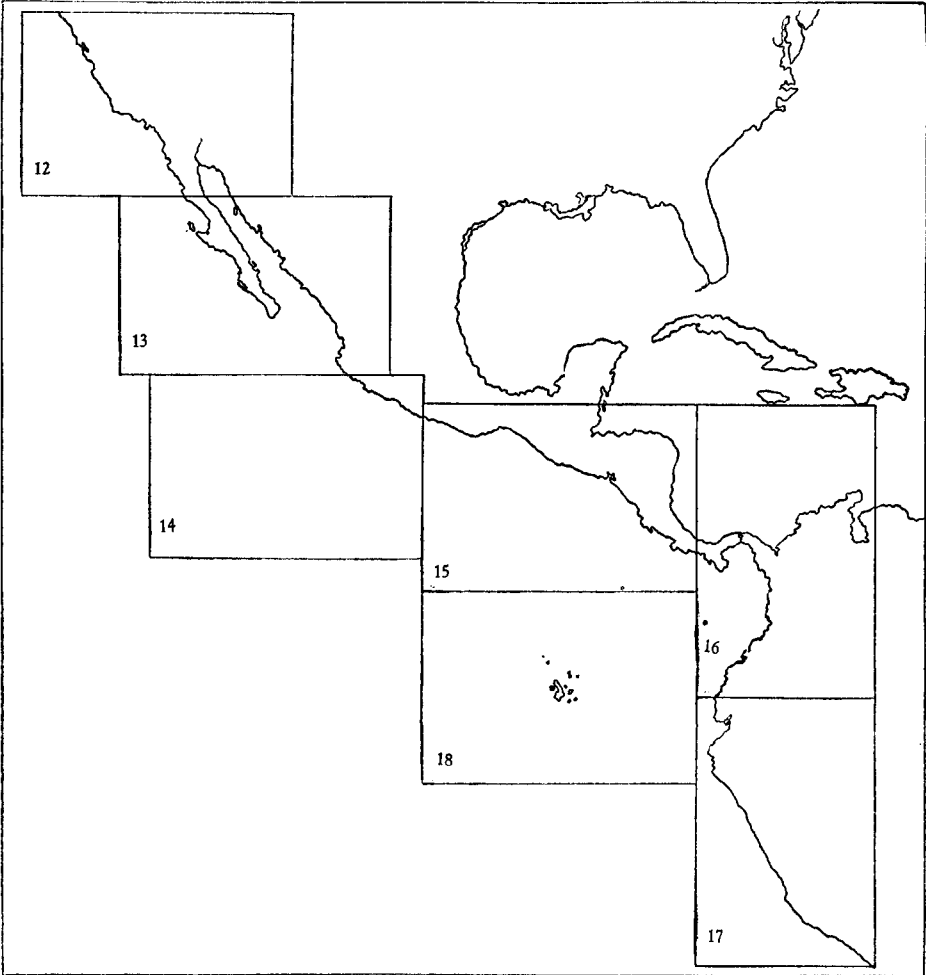


CHART 11

This reduced scale shows the relation of the more detailed charts 12-18 immediately following, reading from upper left to lower right.

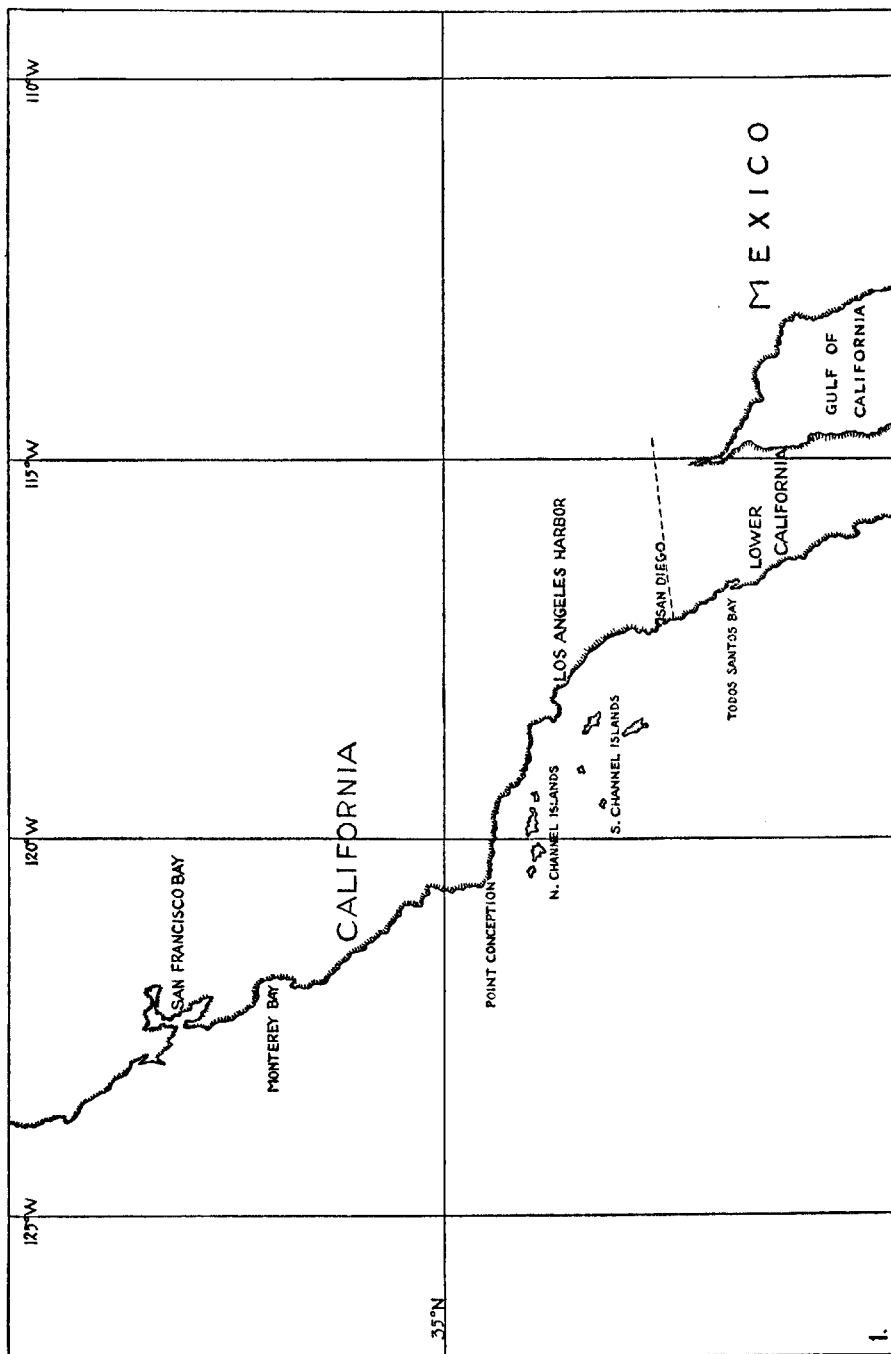


Chart 12

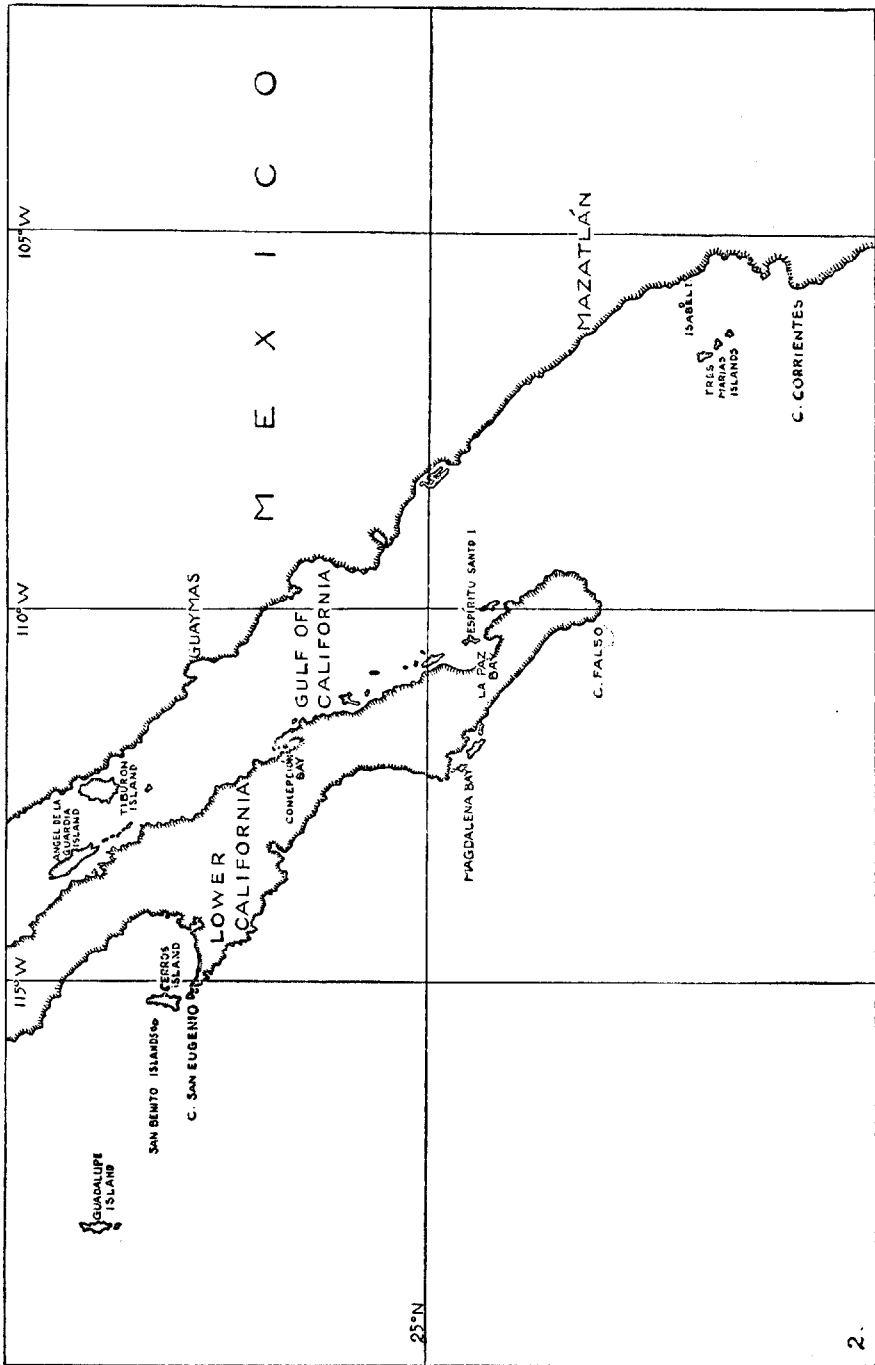


Chart 13

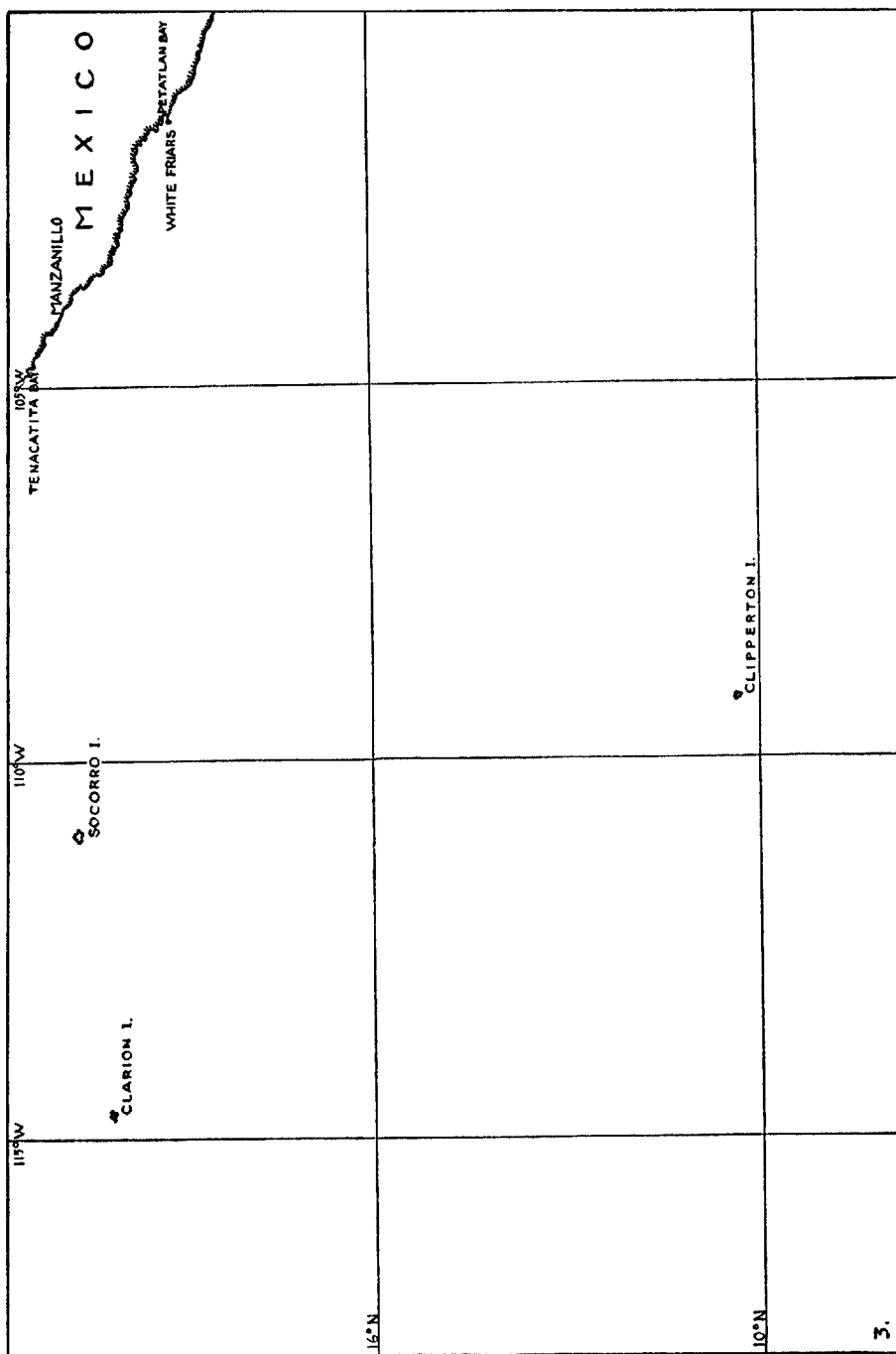


Chart 14

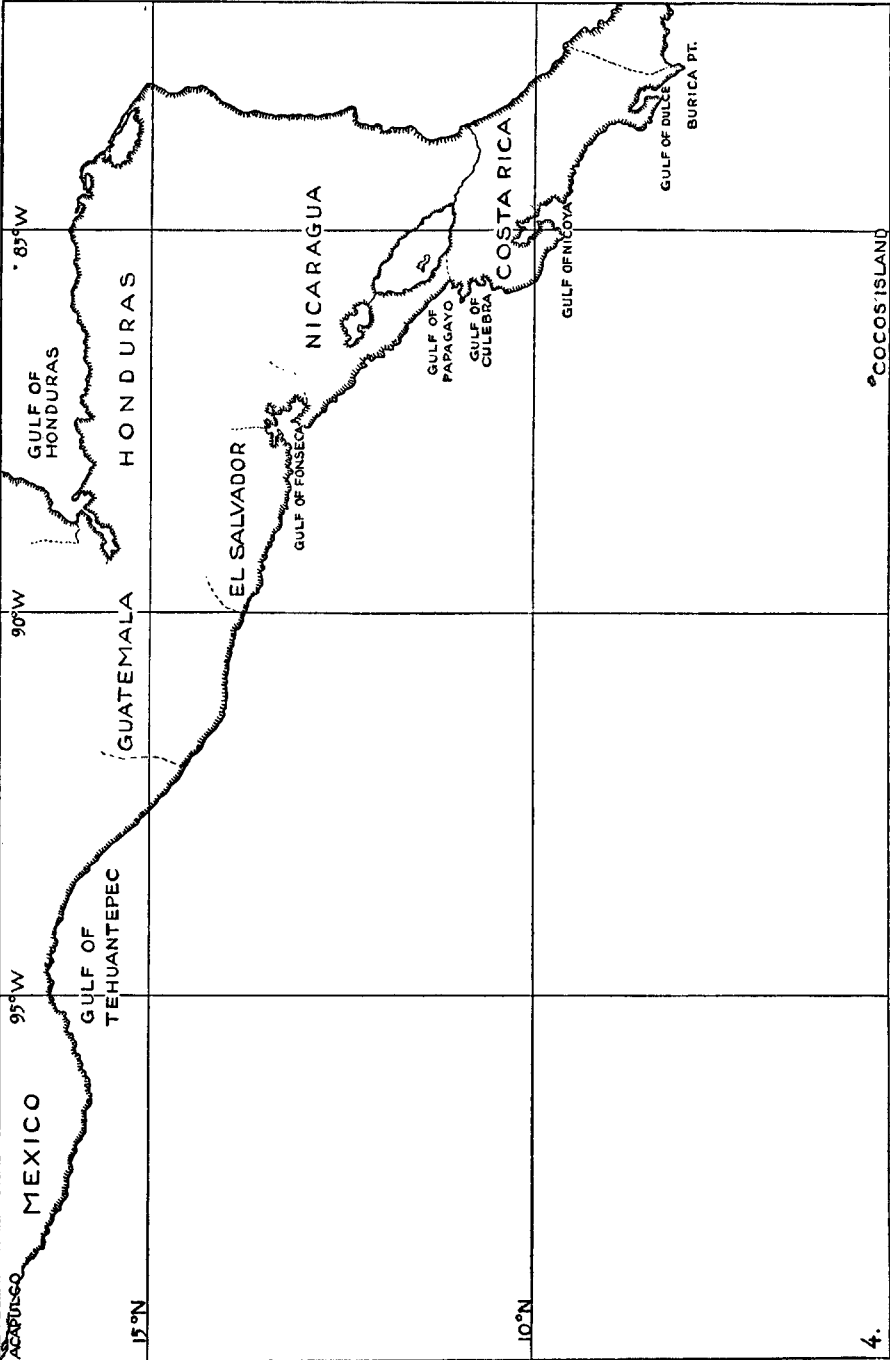


Chart 15

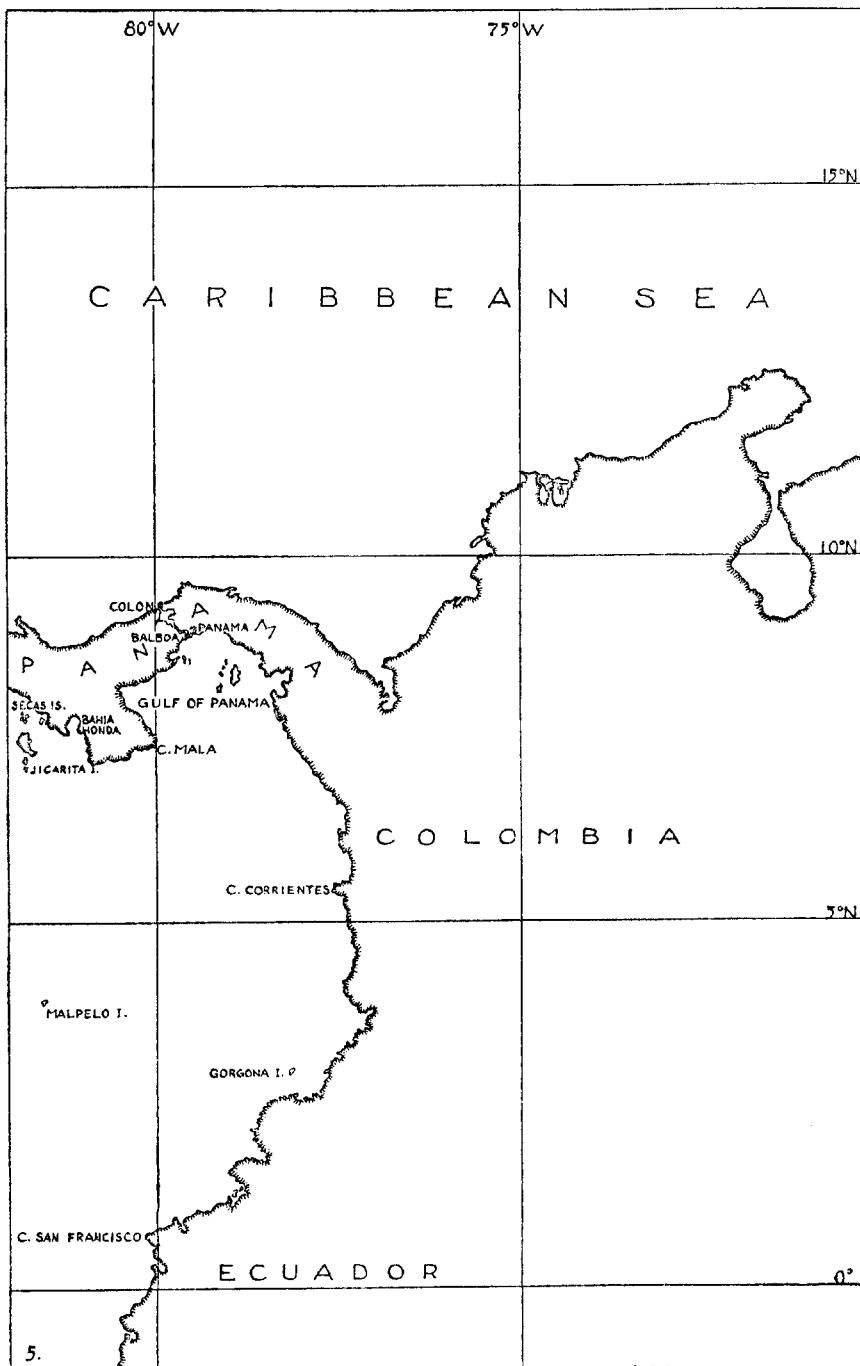


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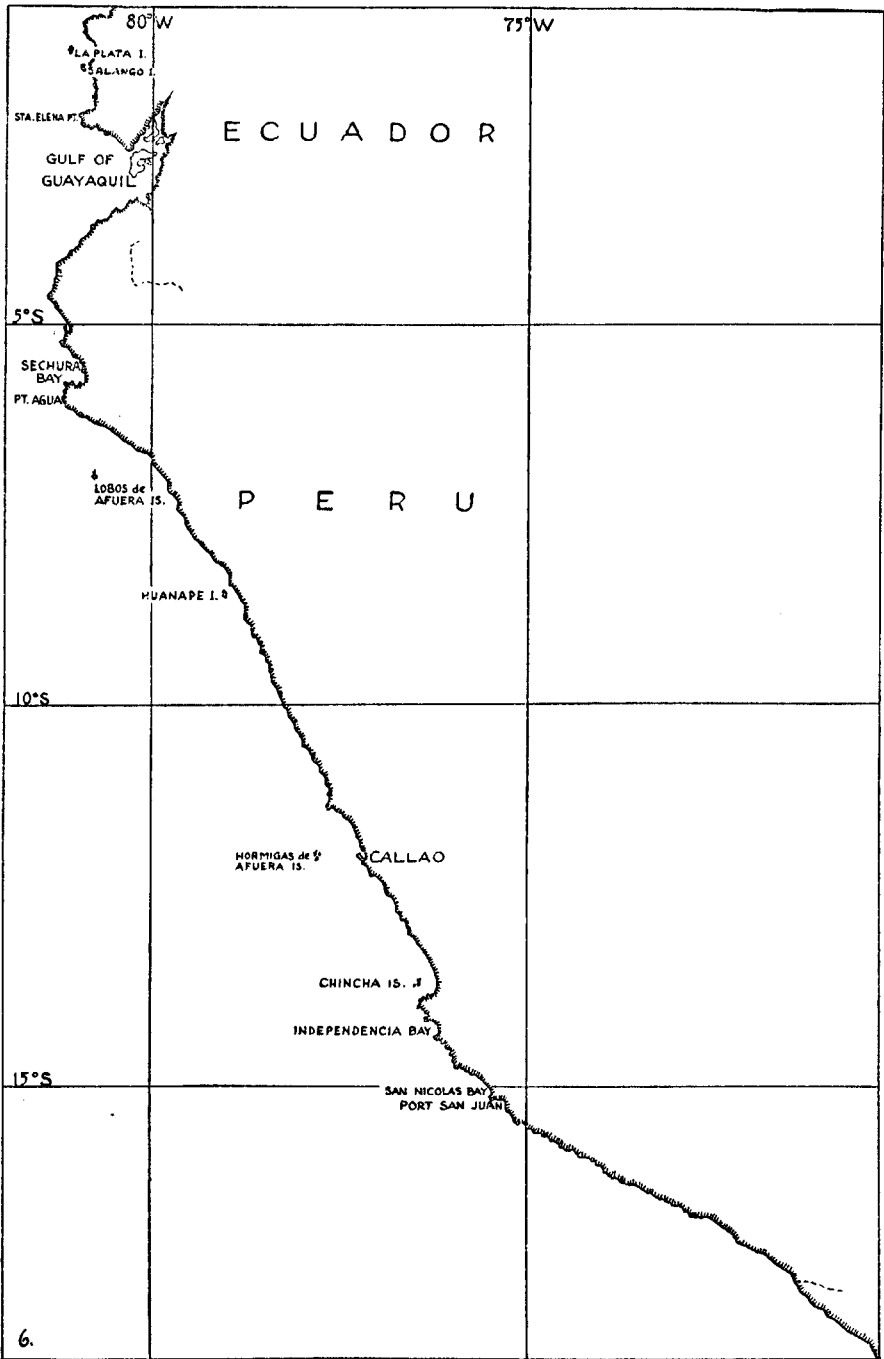


Chart 17

THE GALÁPAGOS ISLANDS

(BELONGING TO ECUADOR)

Compiled from the latest information

SOUNDINGS IN FATHOMS
HEIGHTS IN FEET

Underlined figures on the water in brackets, dashed lines indicate the height above the plane of high water of the adjacent island or rock

HARBOR AND SPECIAL CHARTS

There are special charts of all places of which the names are underlined thus: Isabela, San Salvador

Currents ———

Color of sand: dark, grey, wh. are coarse, fine, fine, very sandy

Natural Scale 1:100,000 at Lat. 0°

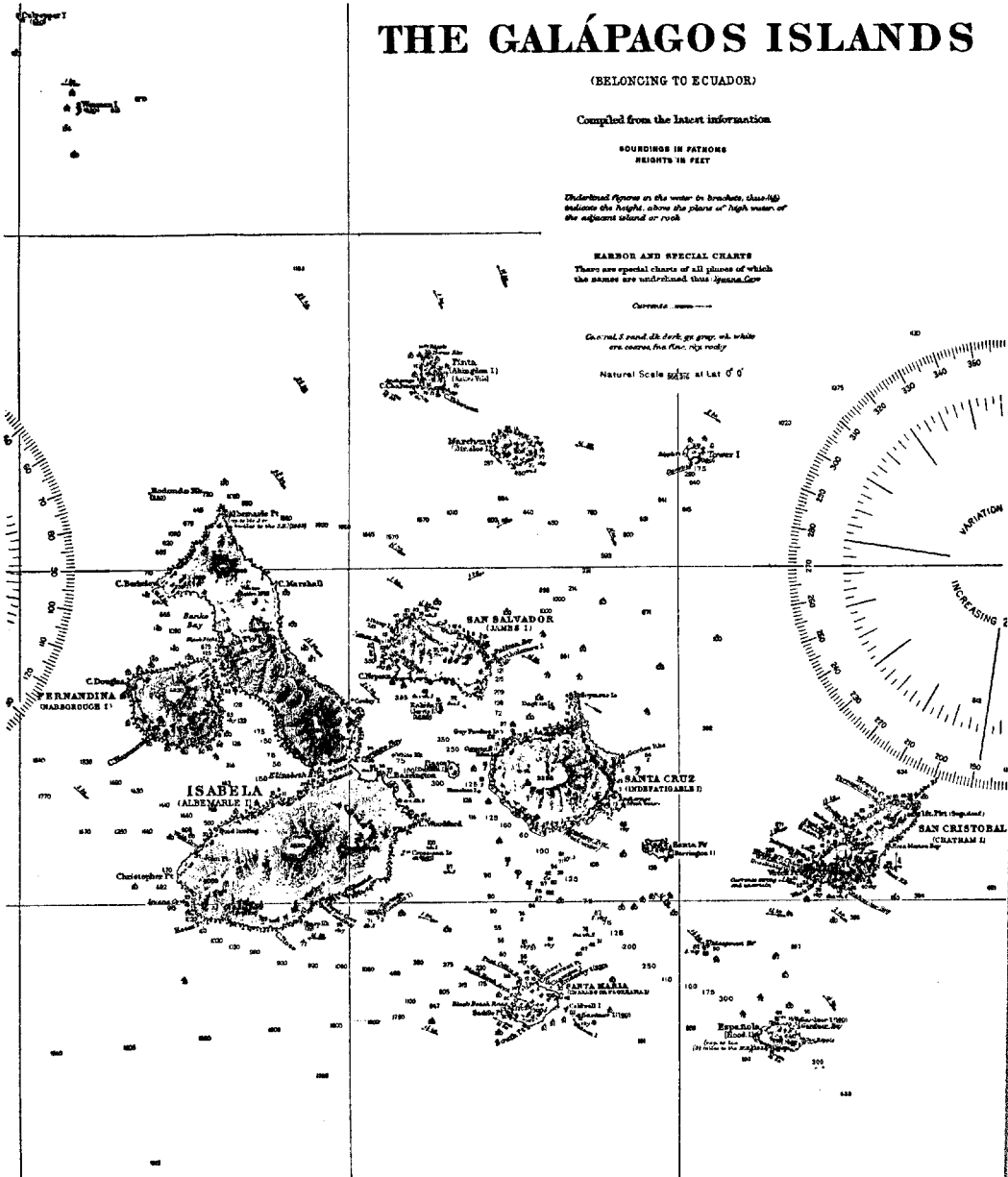


Chart 18

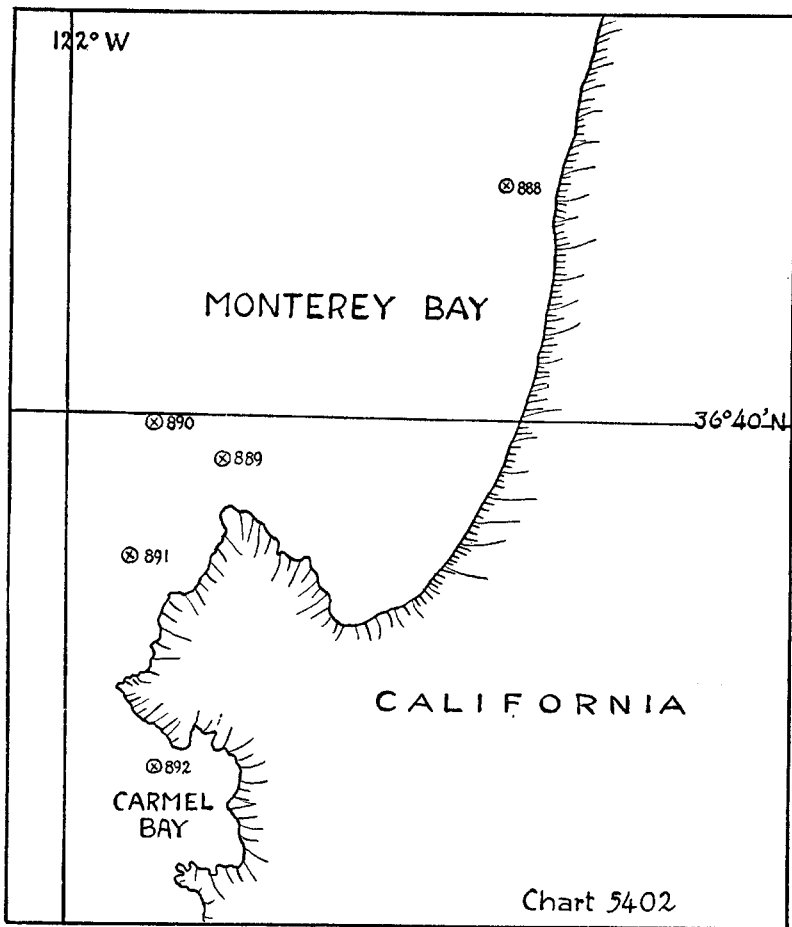


Chart 19

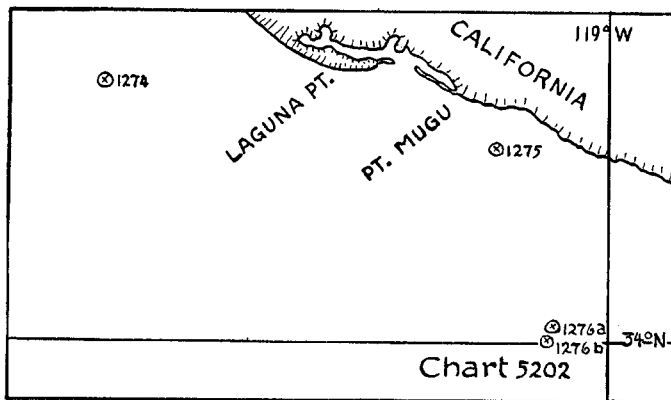


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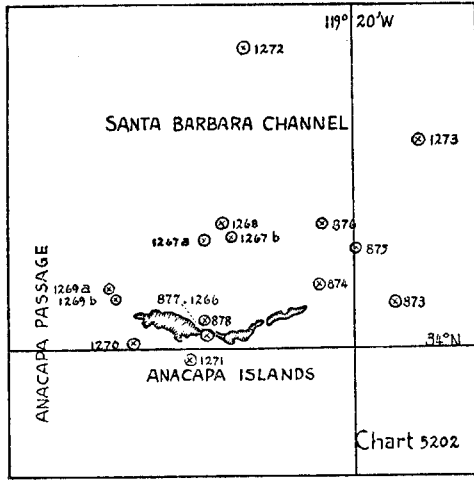


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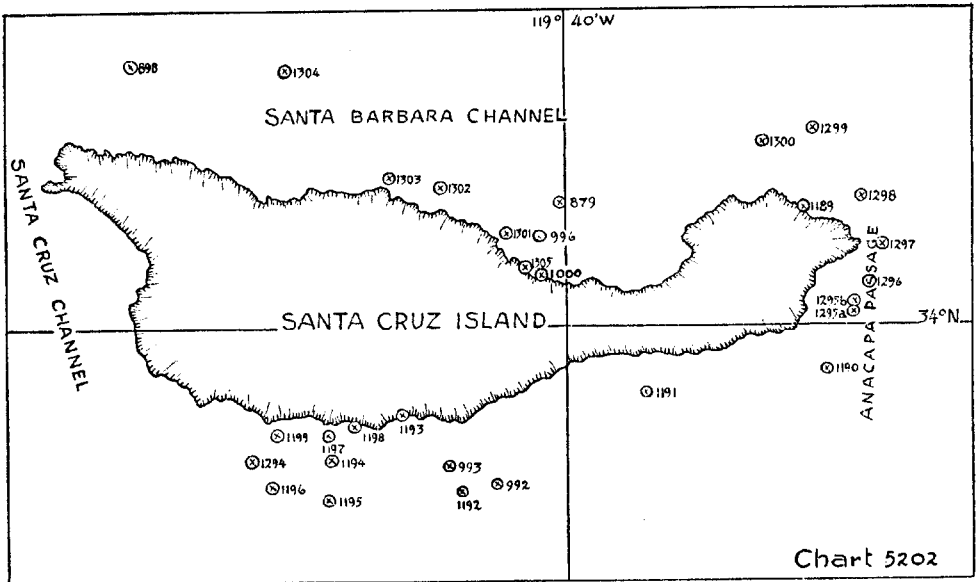


Chart 22

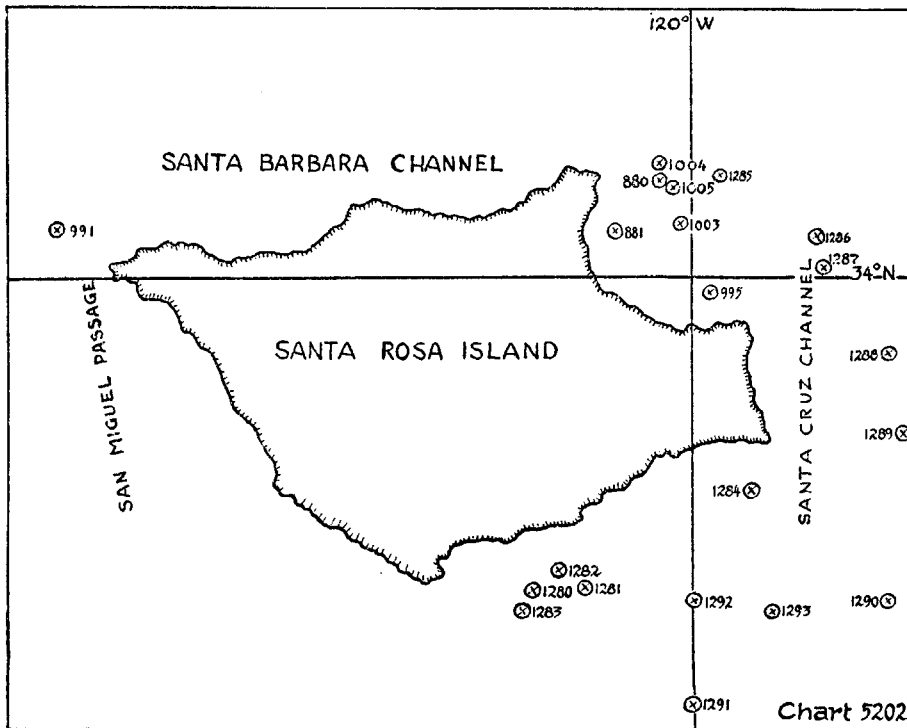


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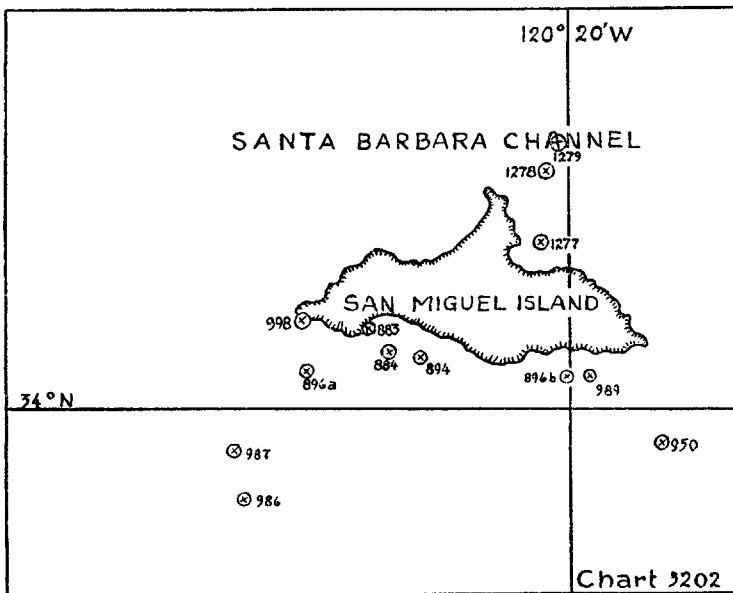


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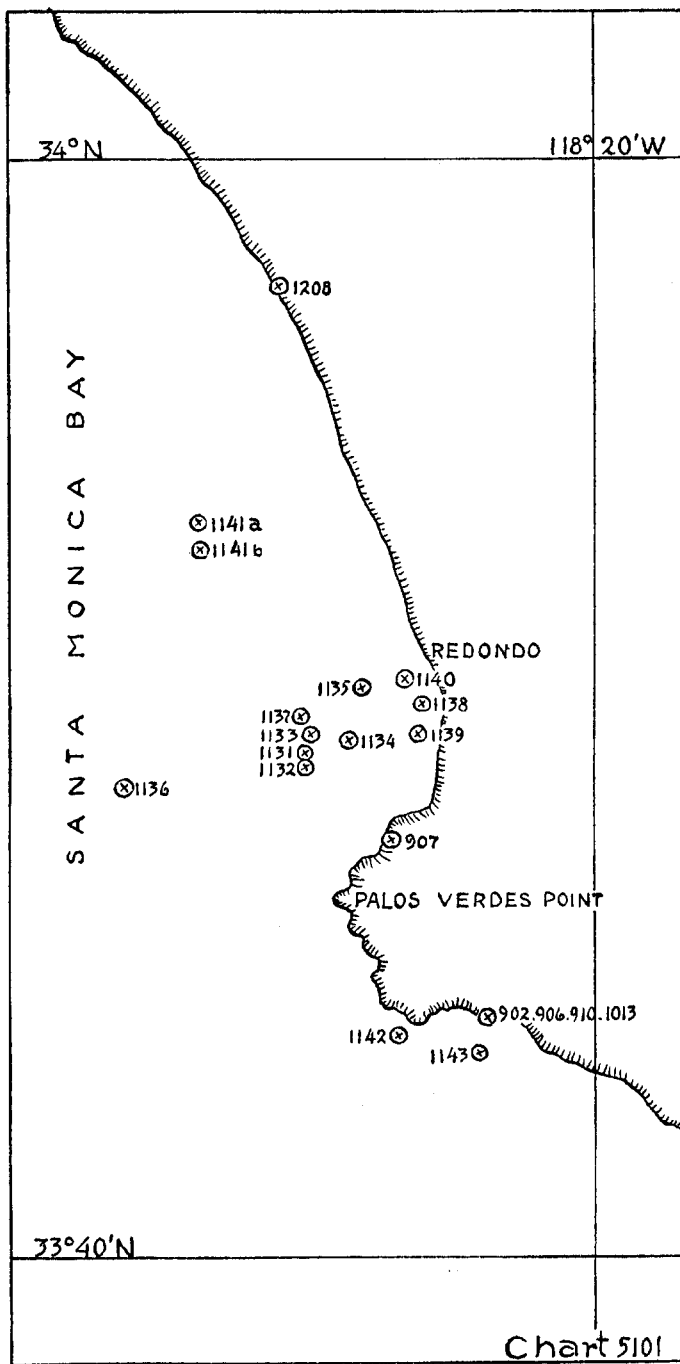


Chart 25

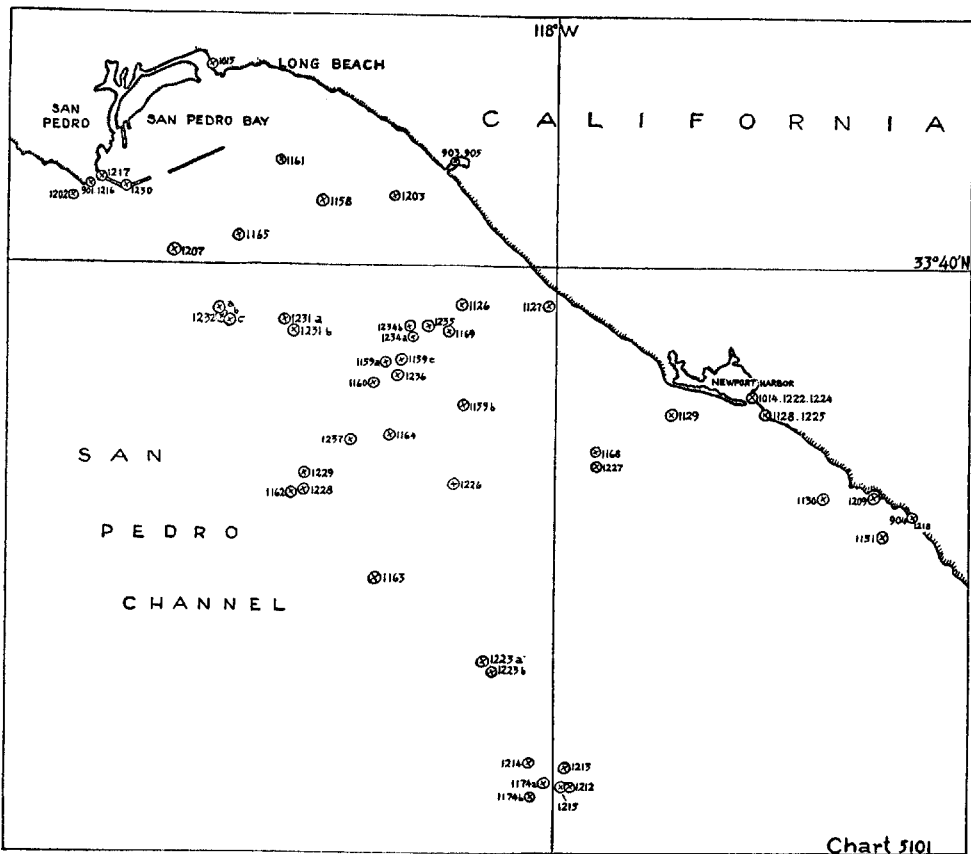


Chart 26

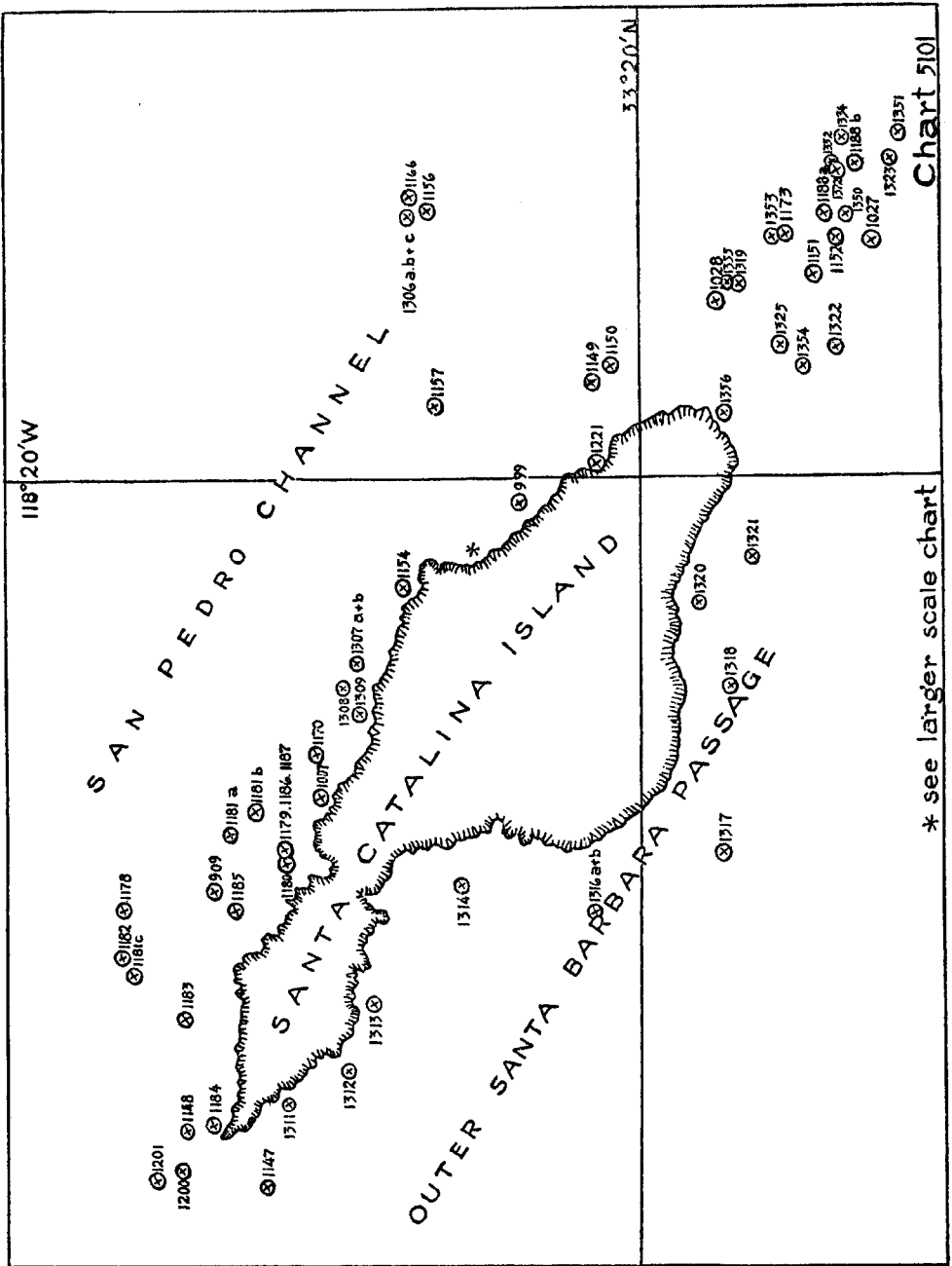


Chart 5101

* see larger scale chart

Chart 27

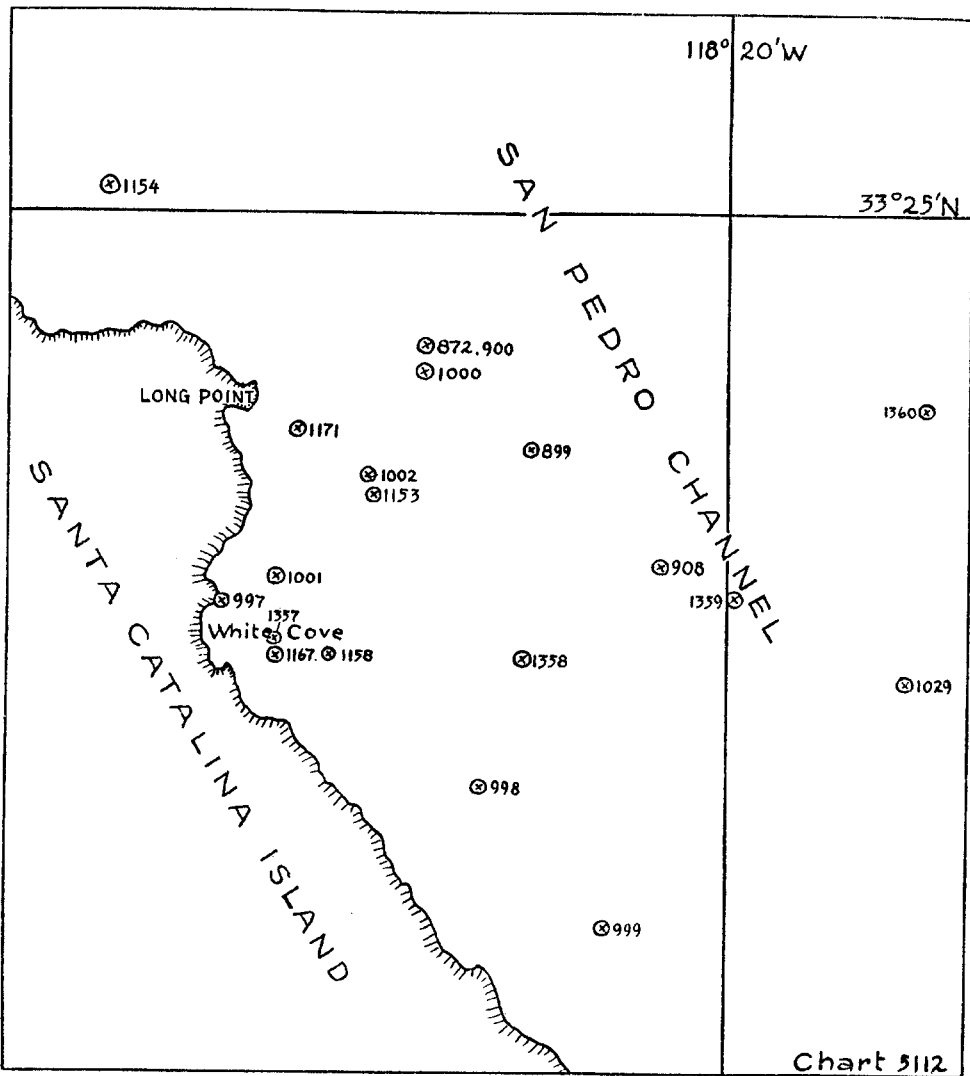


Chart 28

Chart 5112

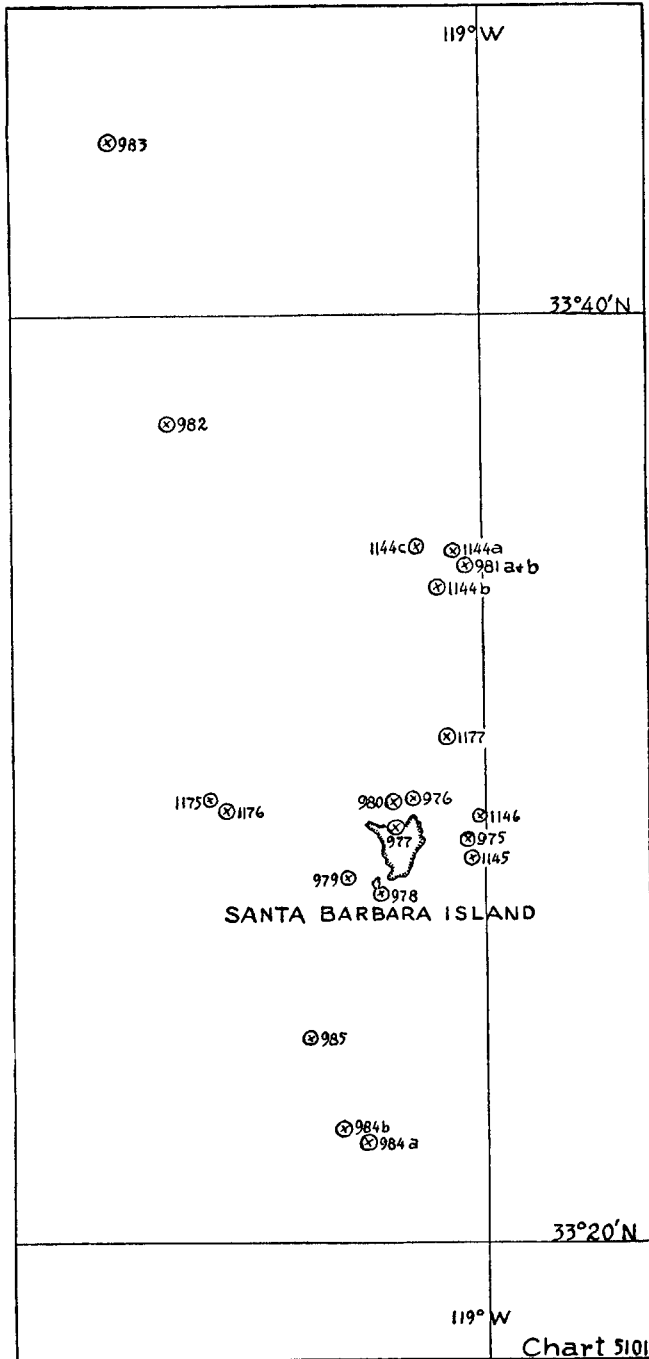


Chart 29

Chart 5101

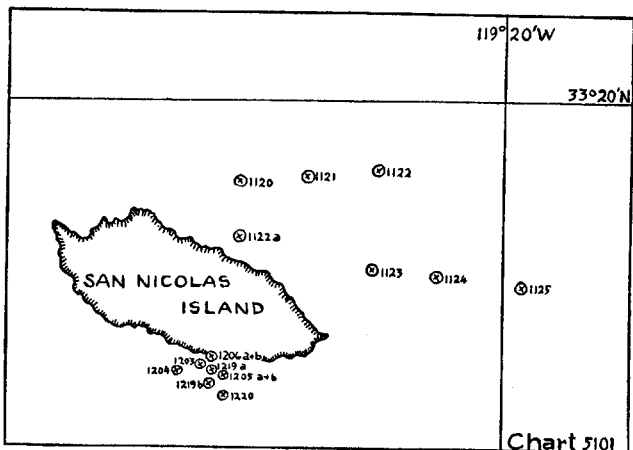


Chart 30

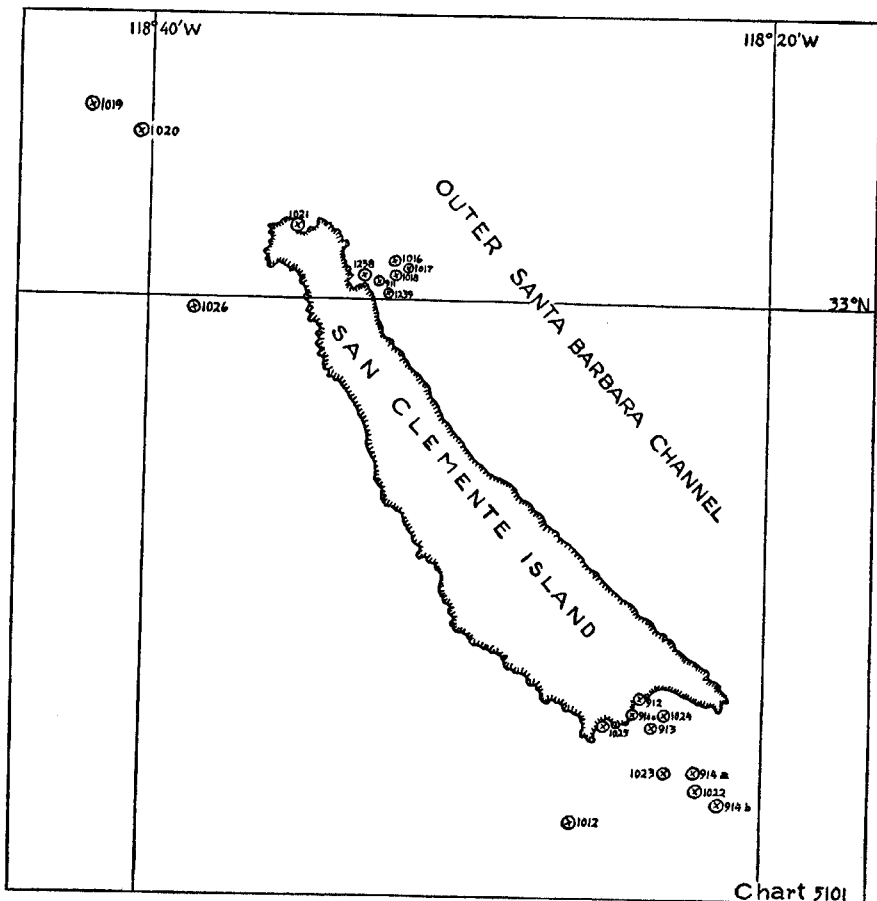


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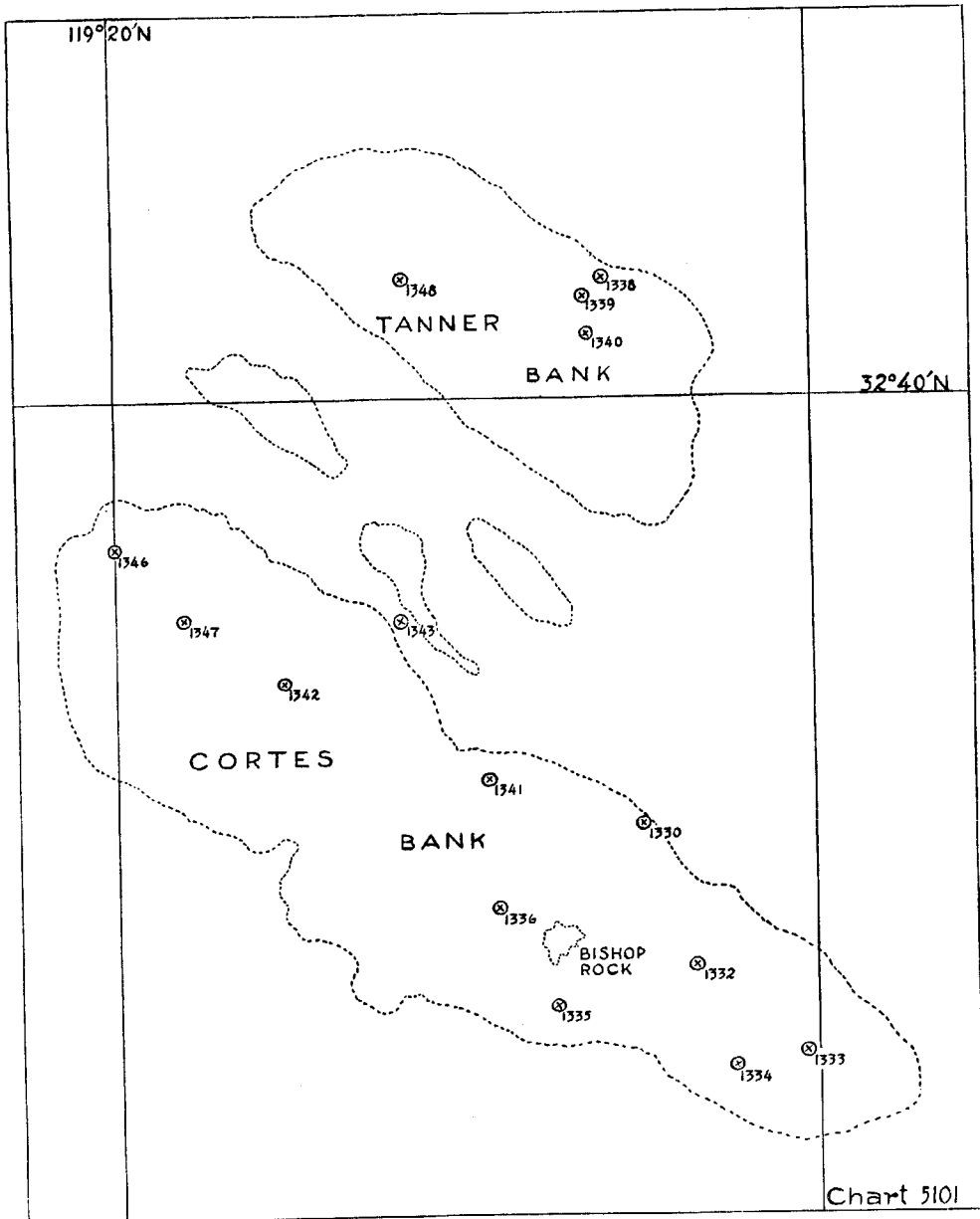


Chart 32

Chart 5101

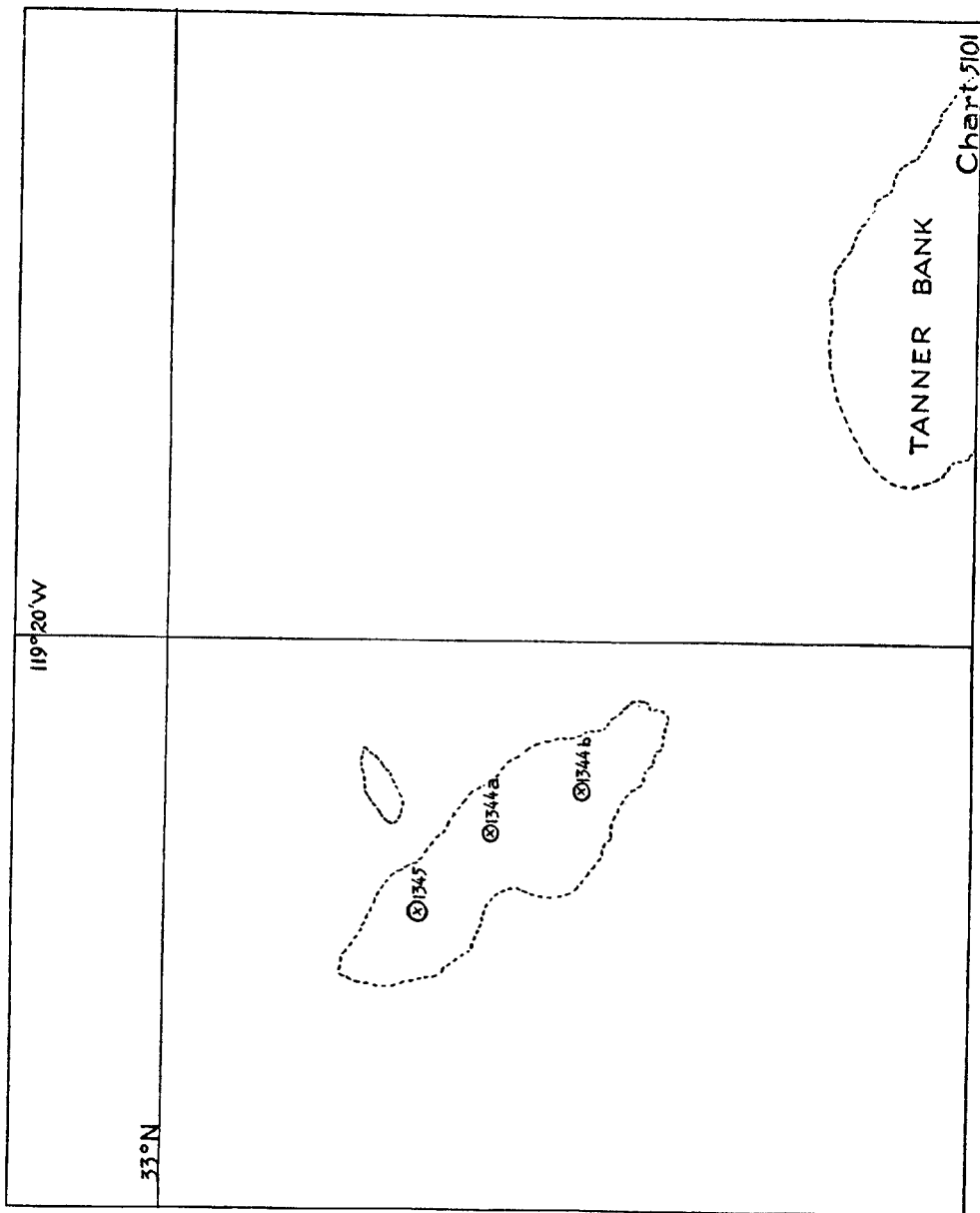


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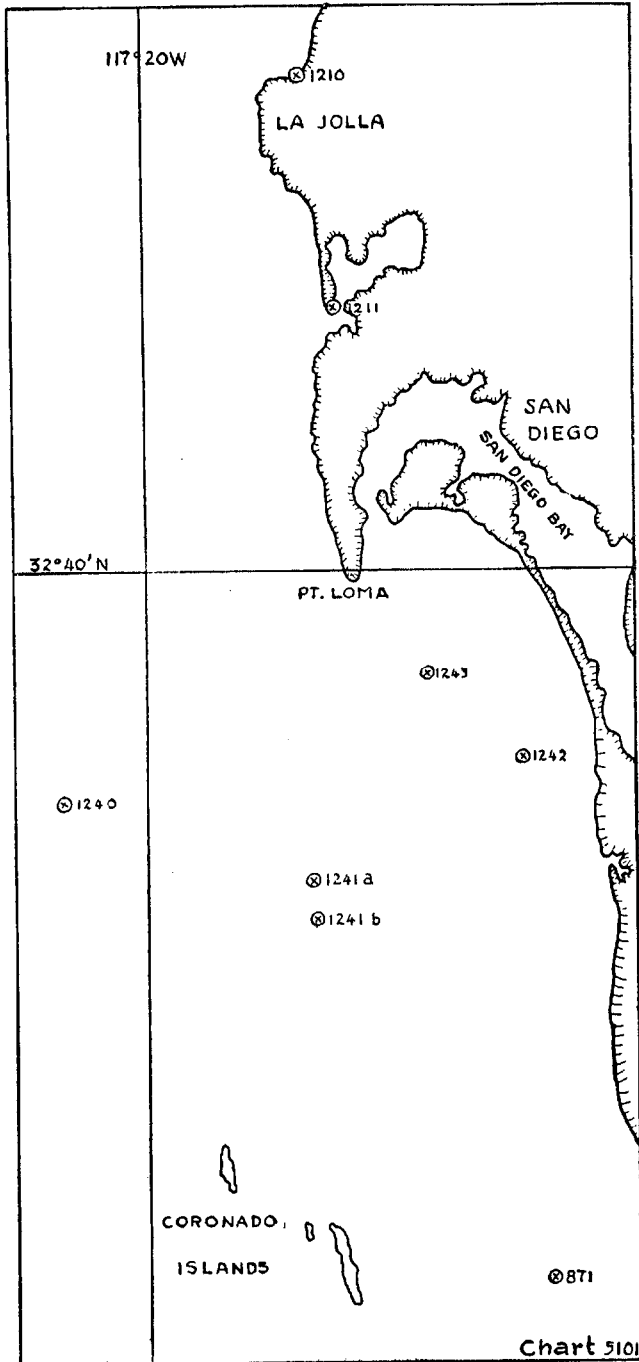


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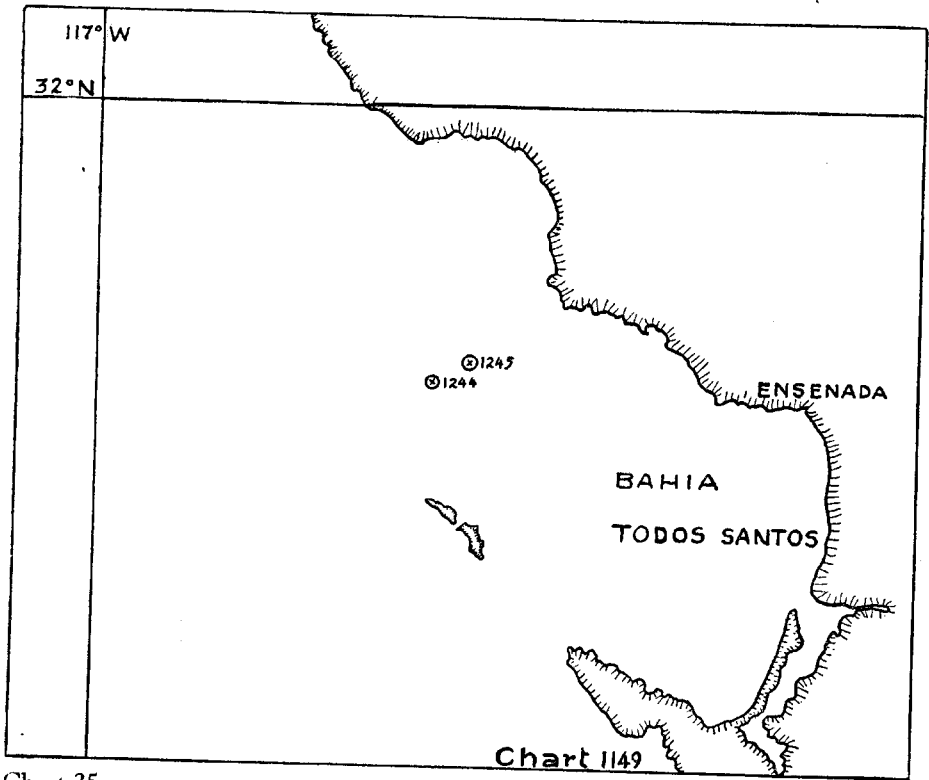


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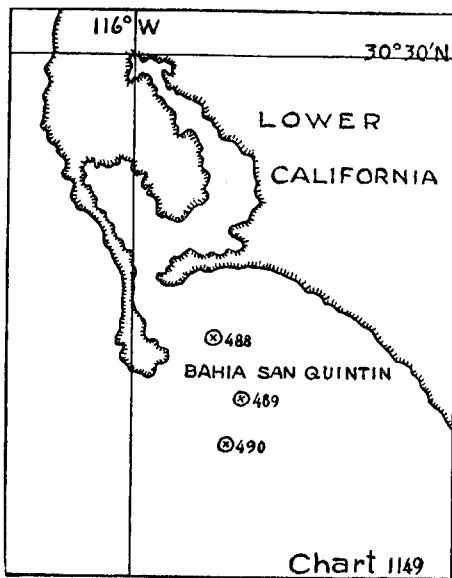


Chart 36

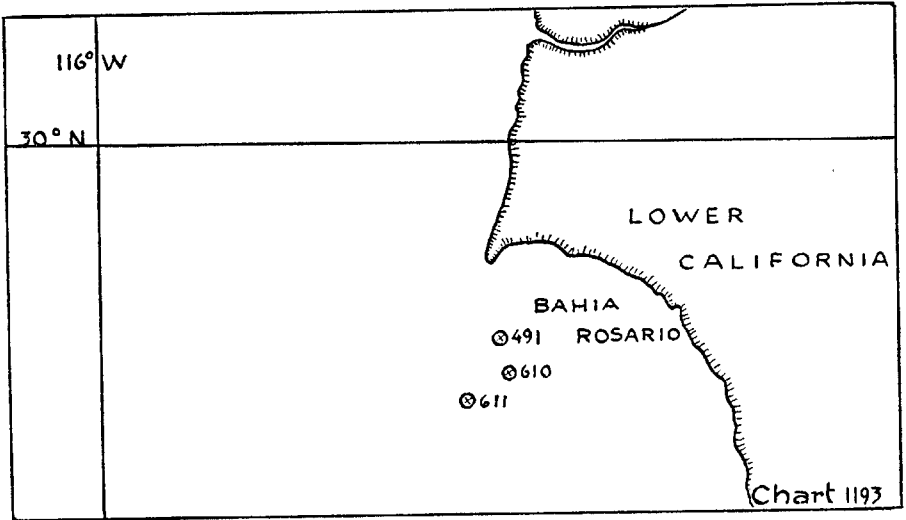


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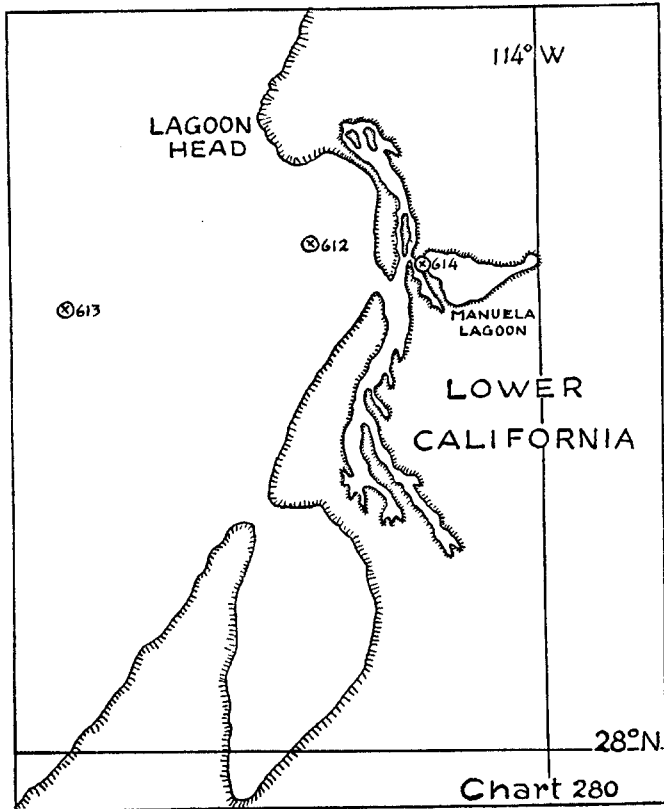


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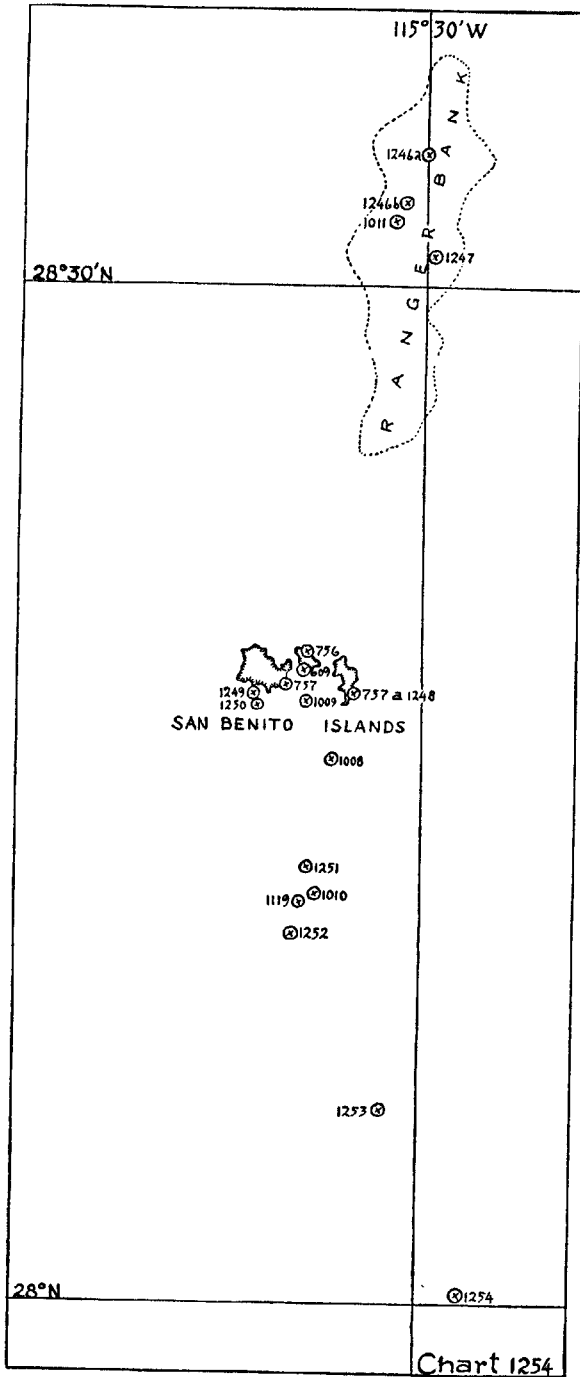


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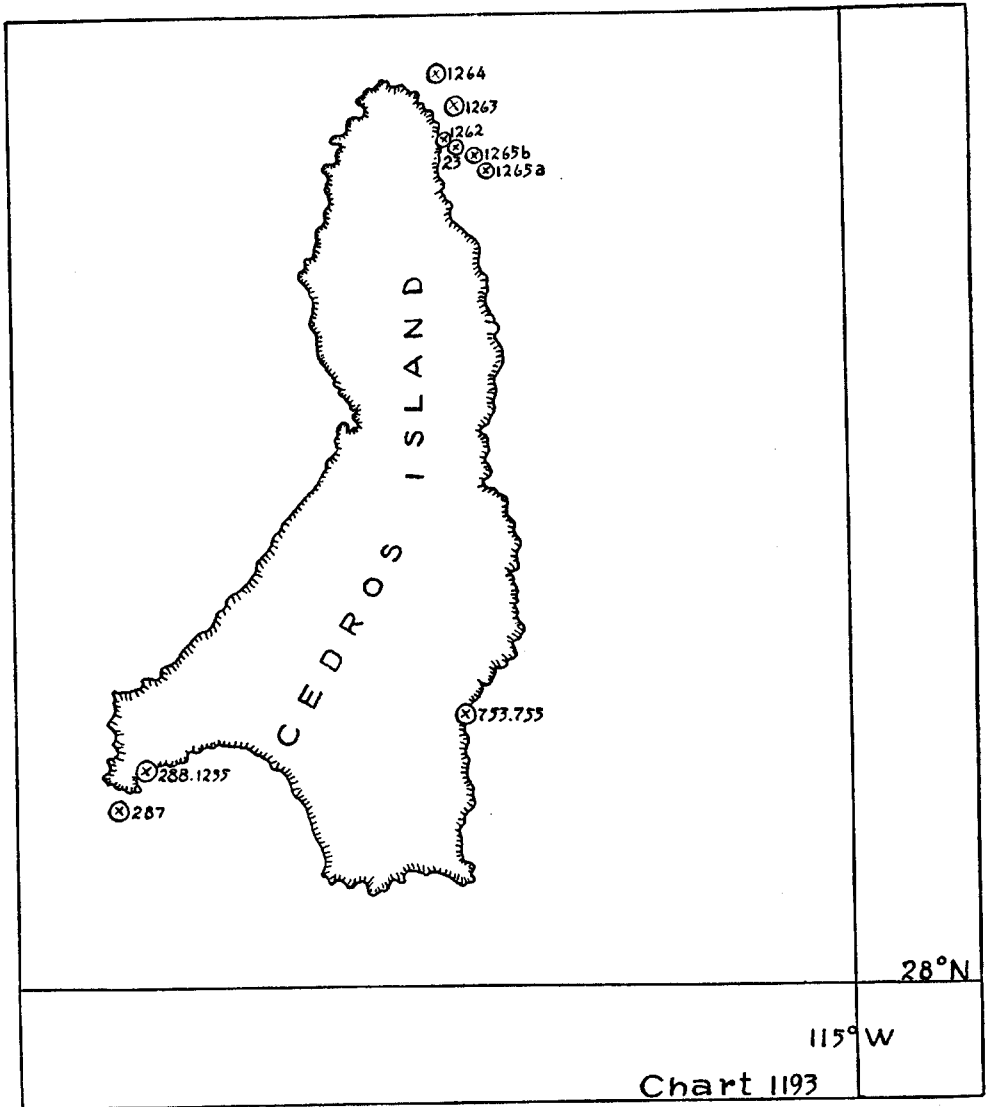


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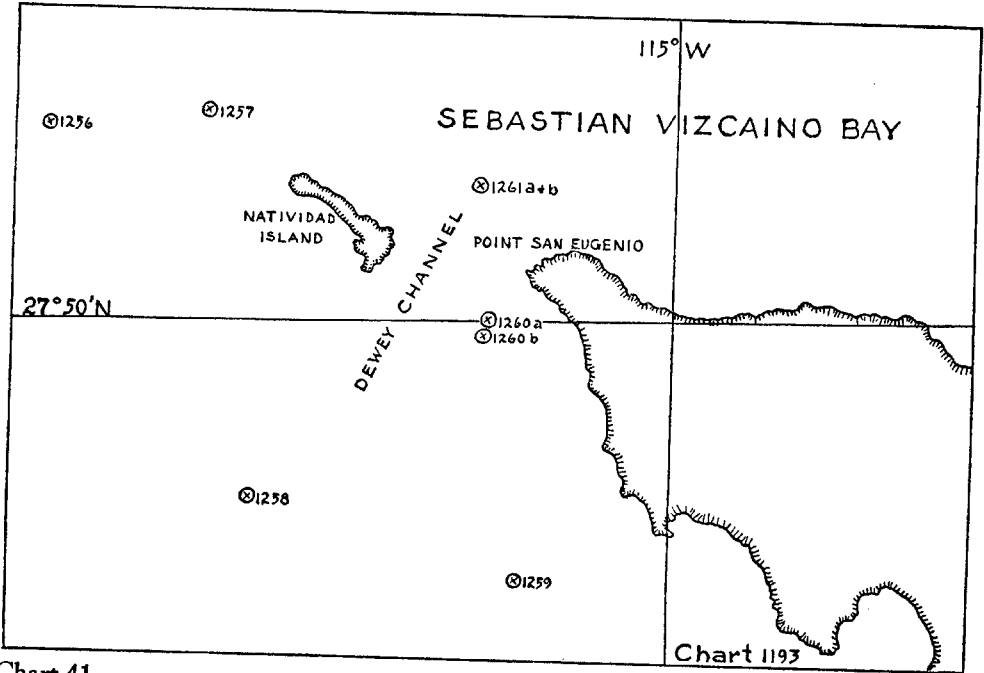


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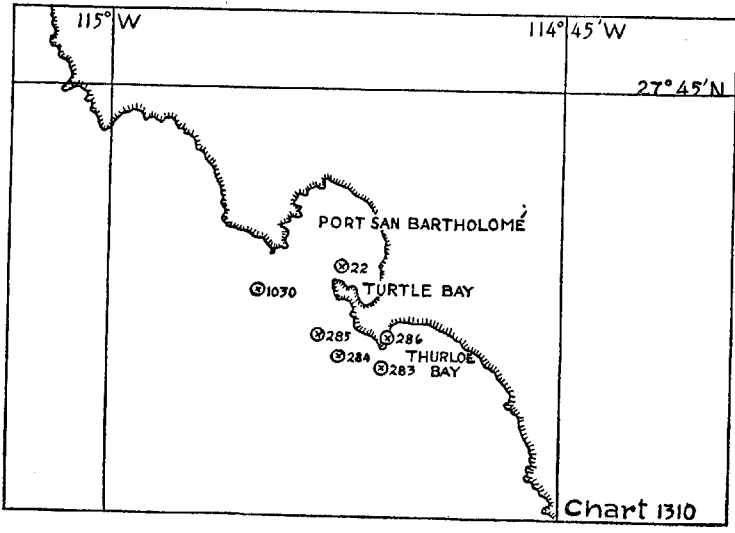


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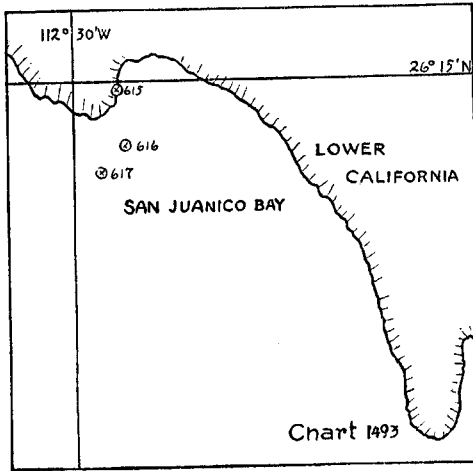


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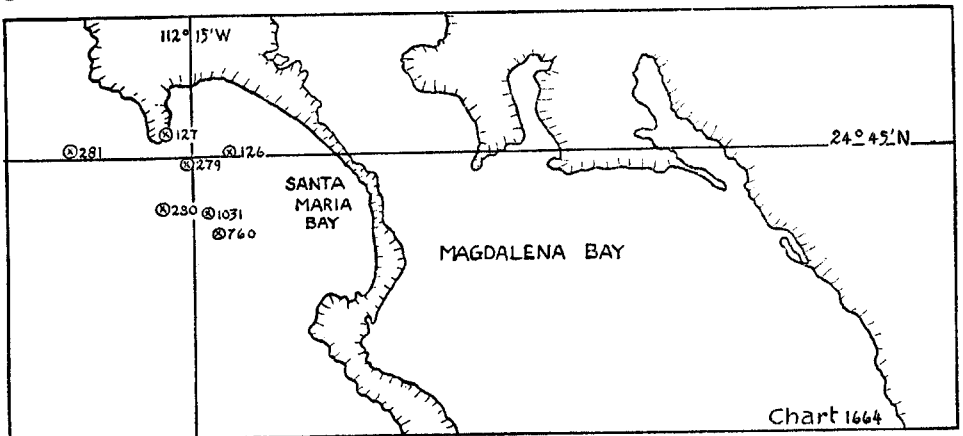


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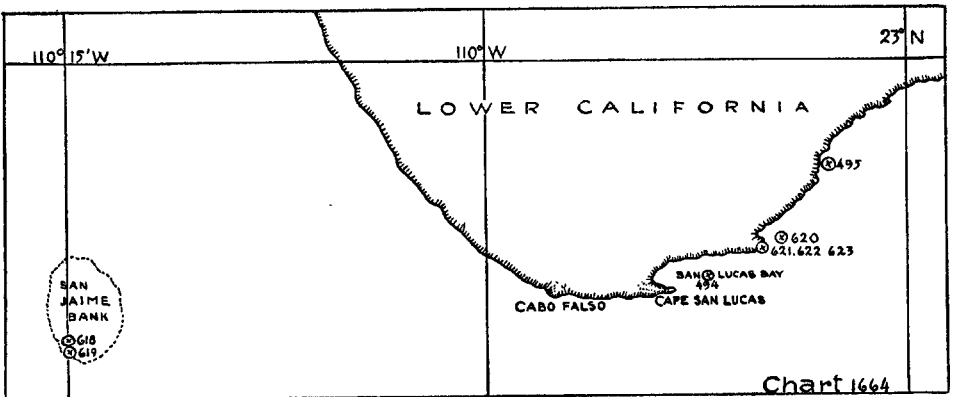


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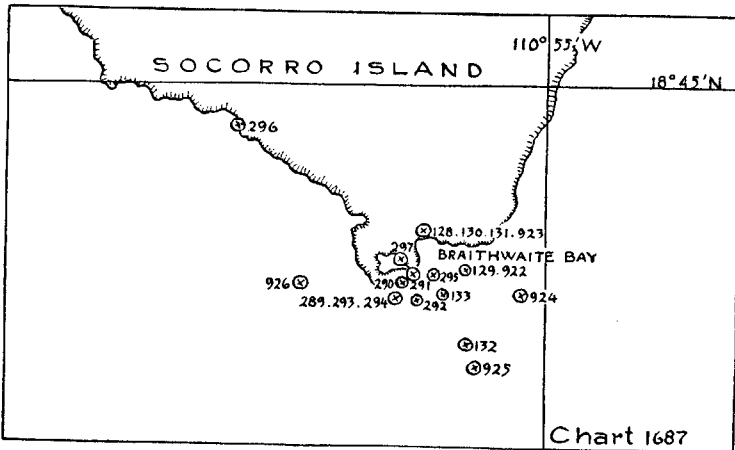


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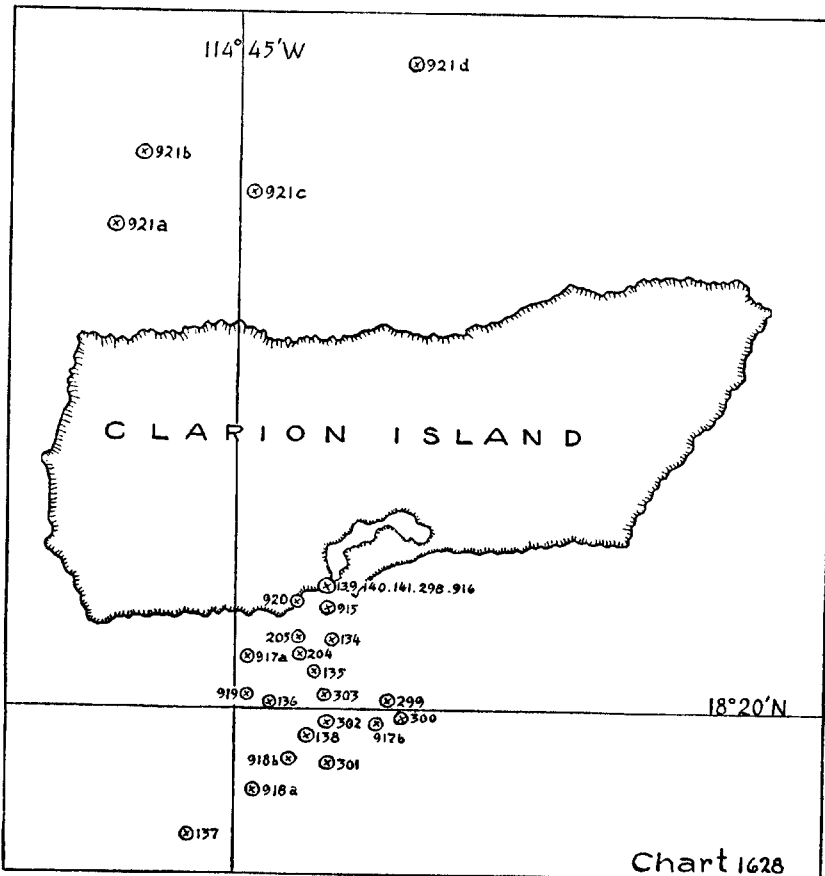


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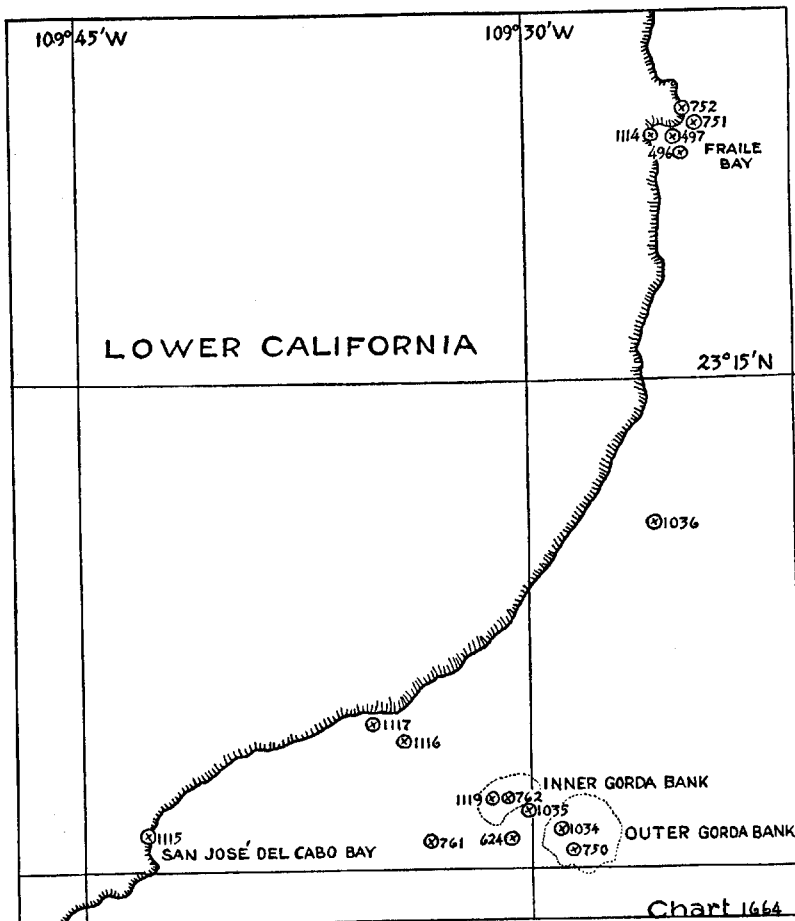


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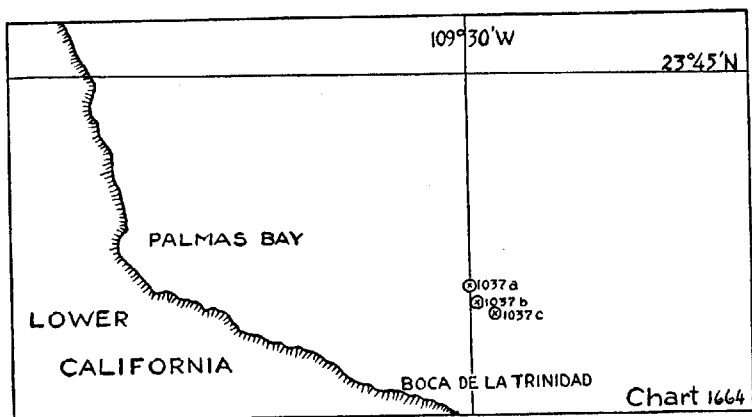


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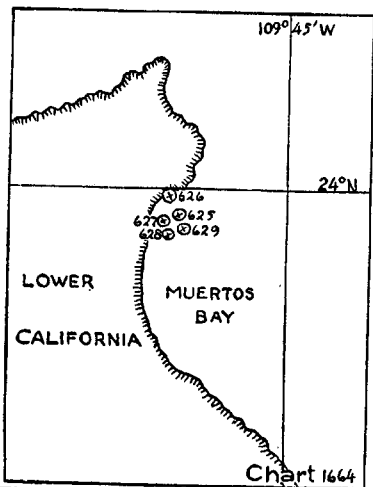


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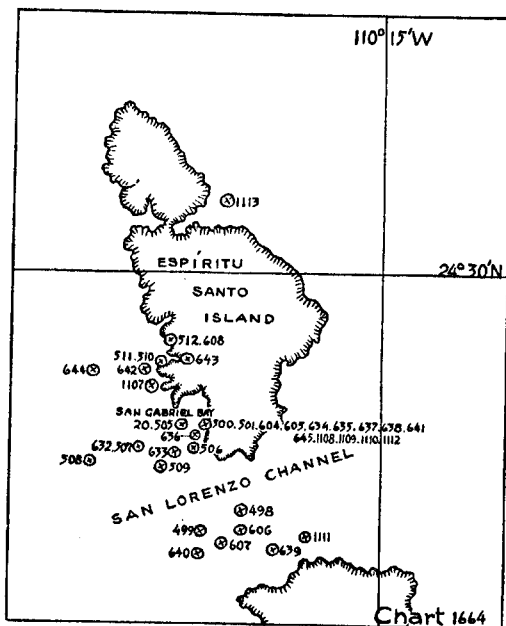


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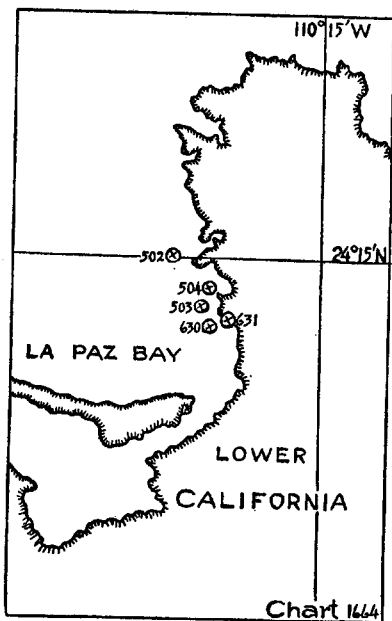


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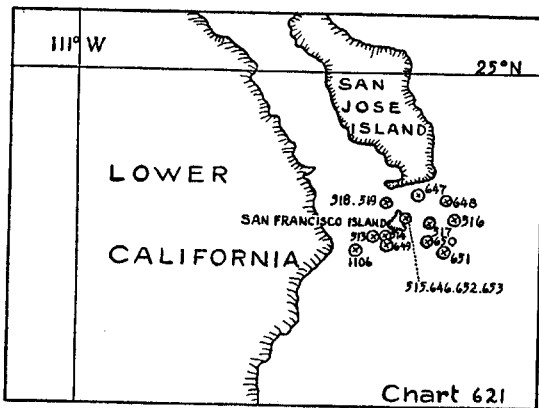


Chart 53

Chart 621

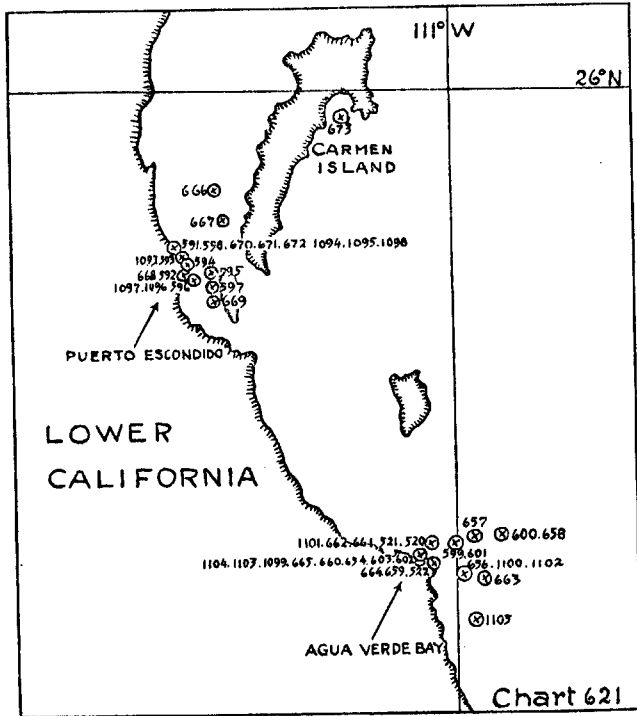


Chart 54

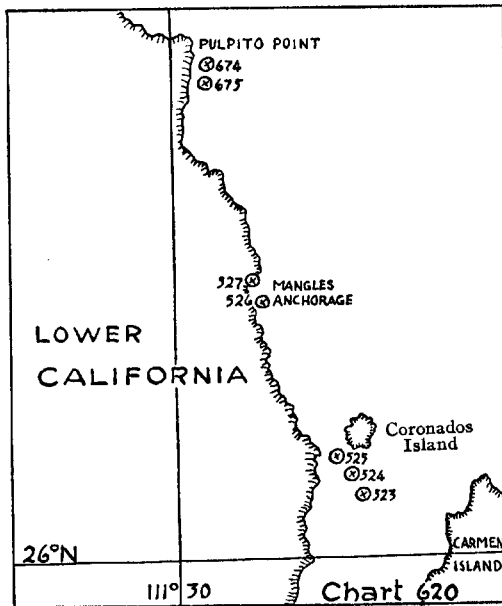


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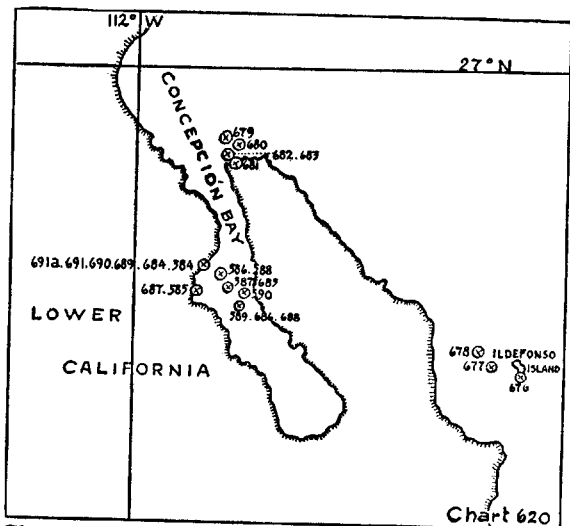


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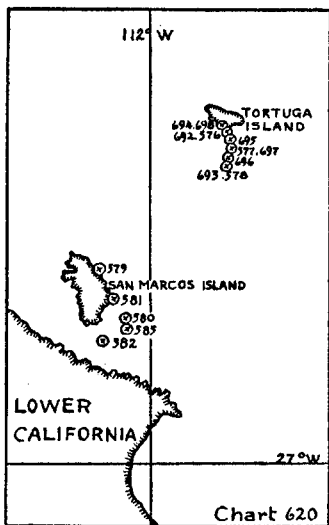


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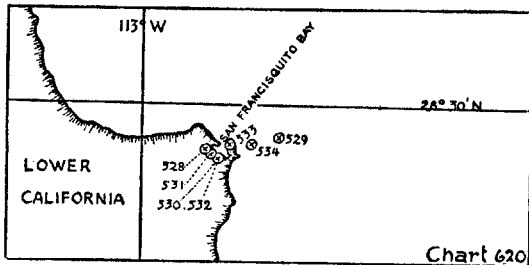


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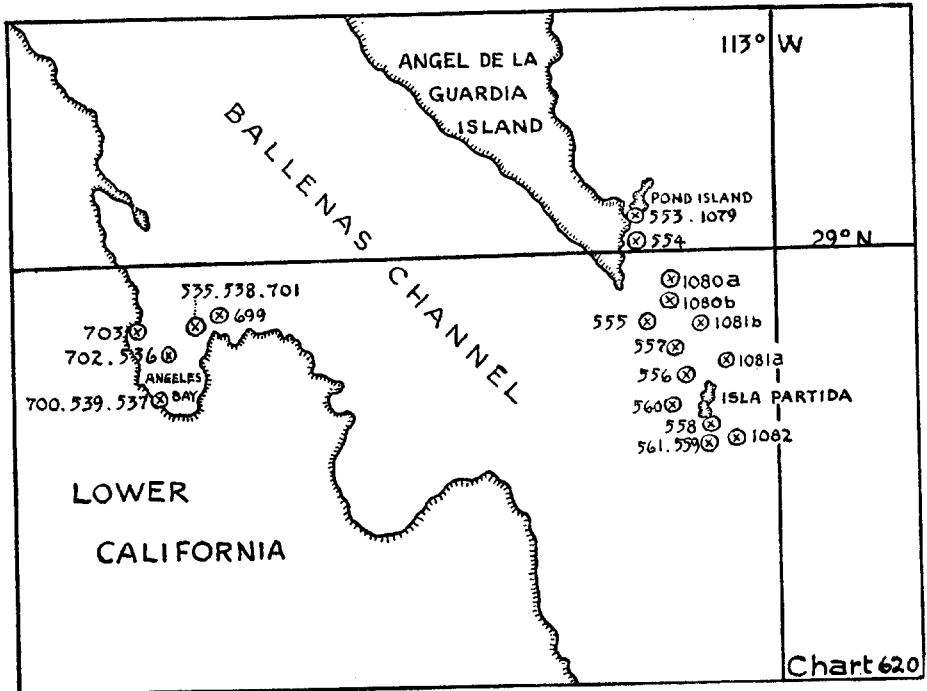


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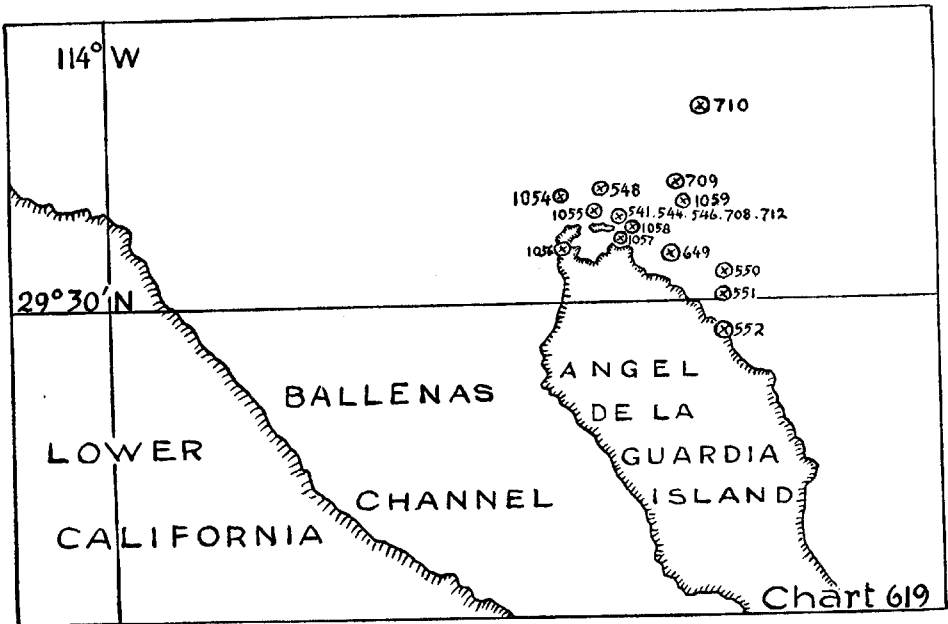


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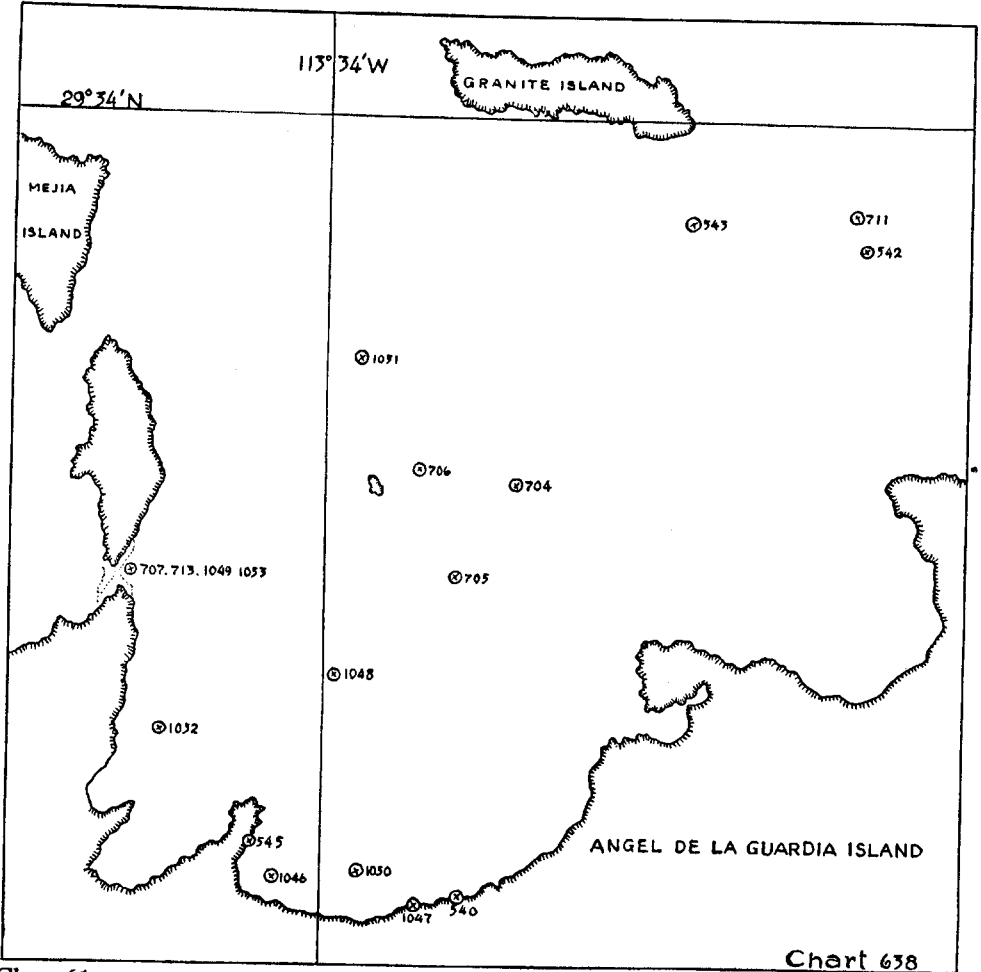


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Chart 638

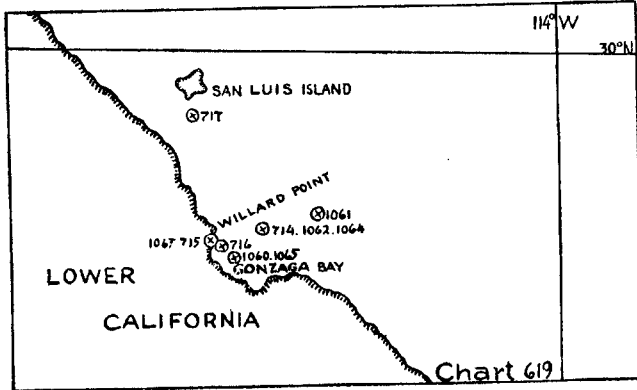


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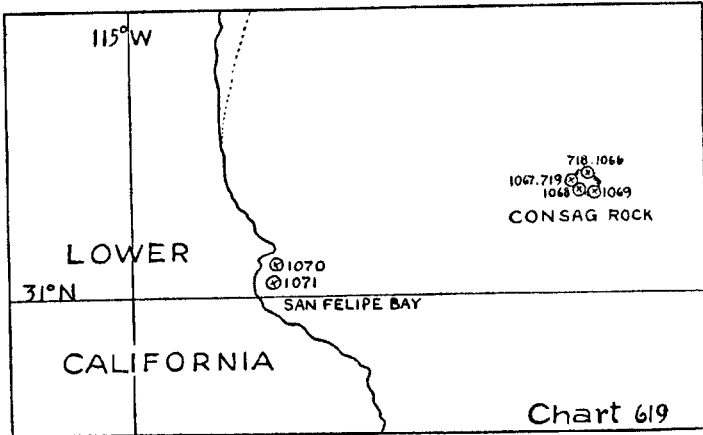


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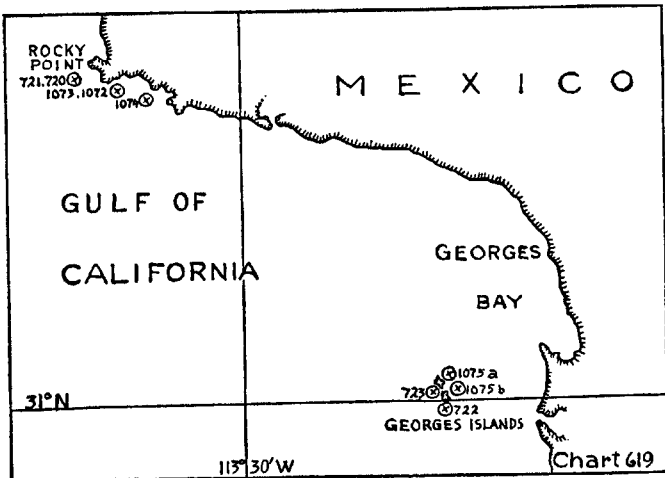


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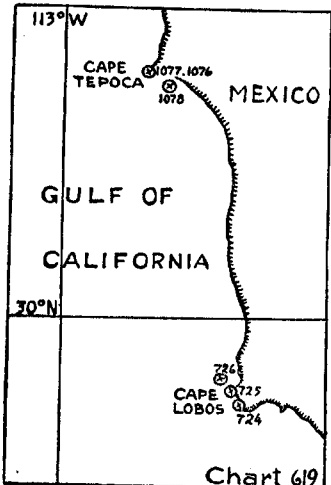


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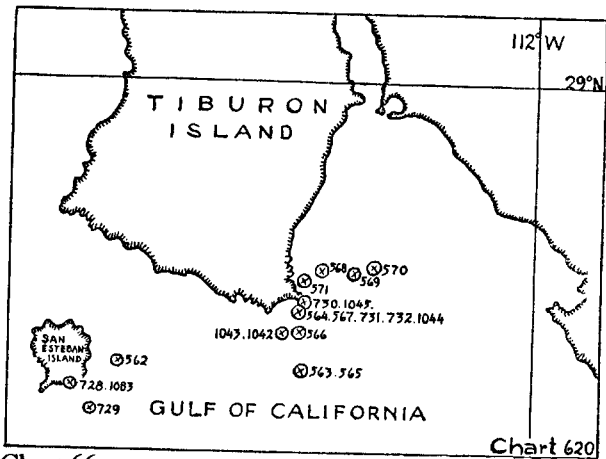


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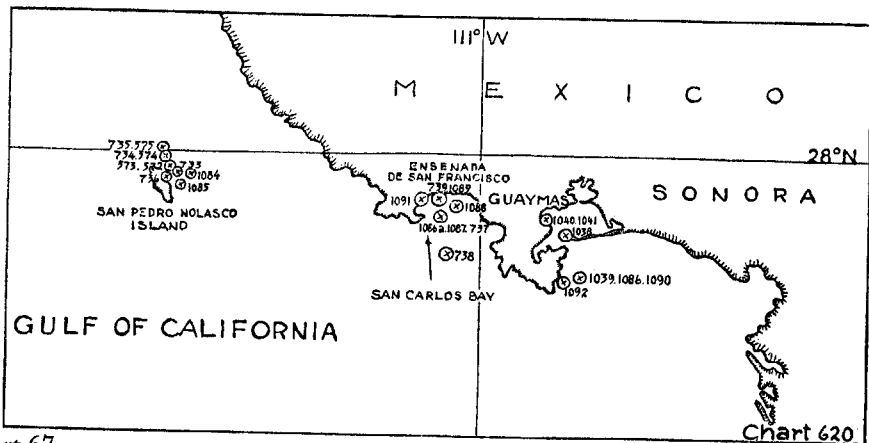


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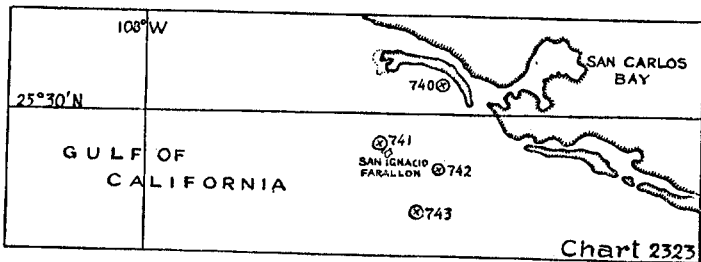


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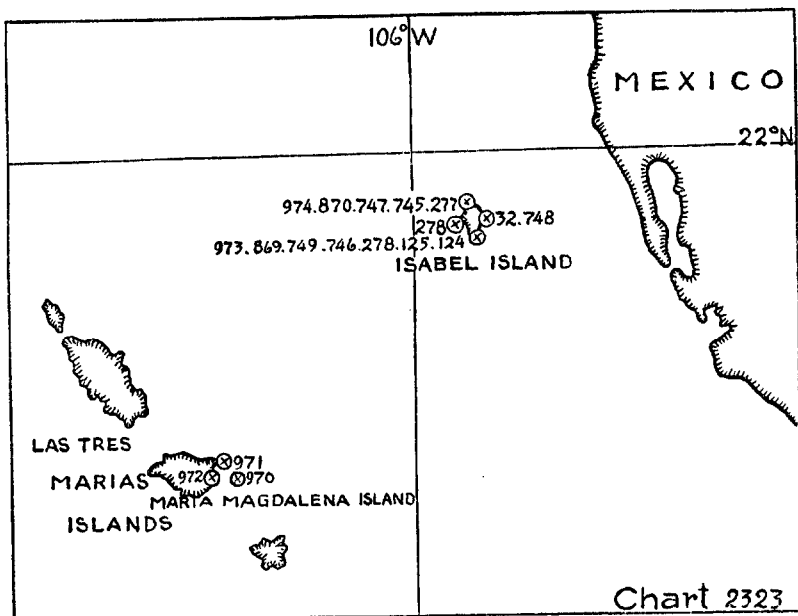


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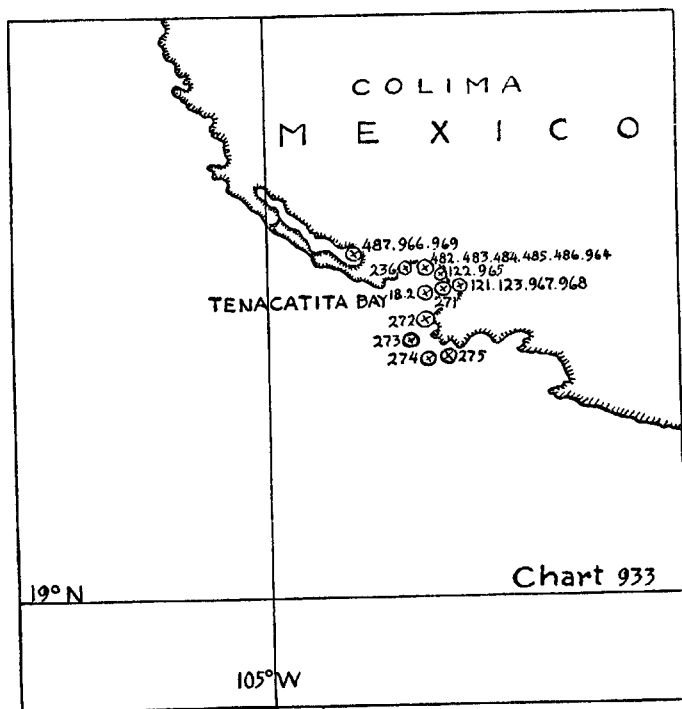


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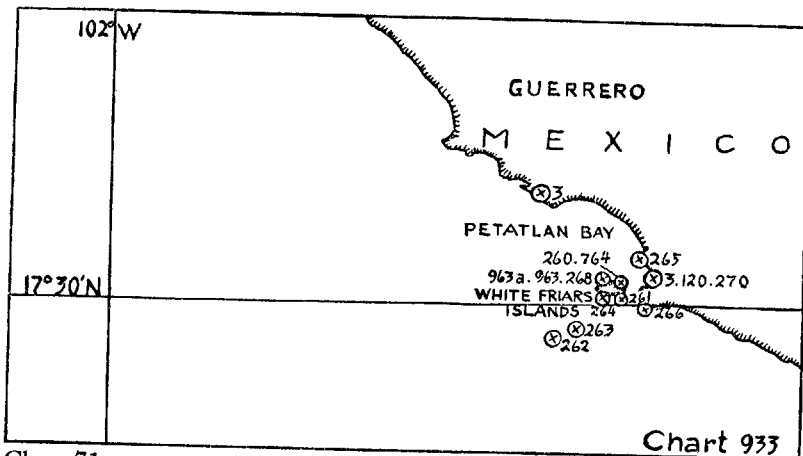


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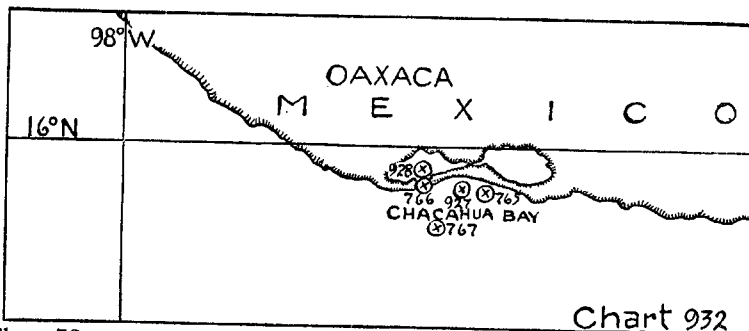


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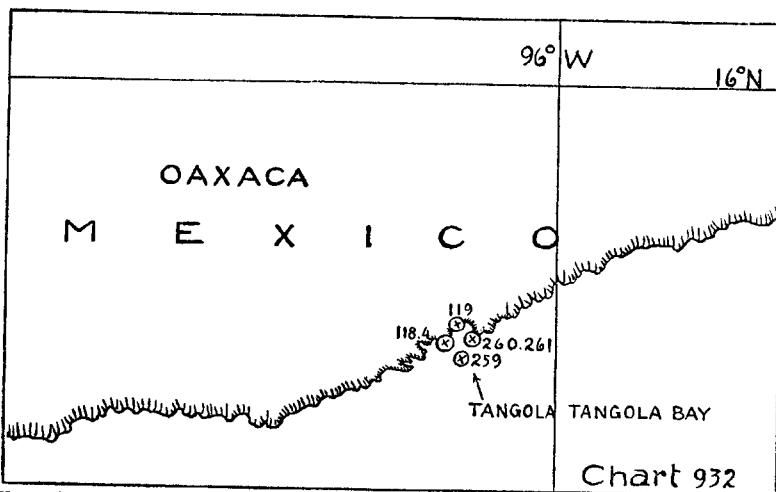


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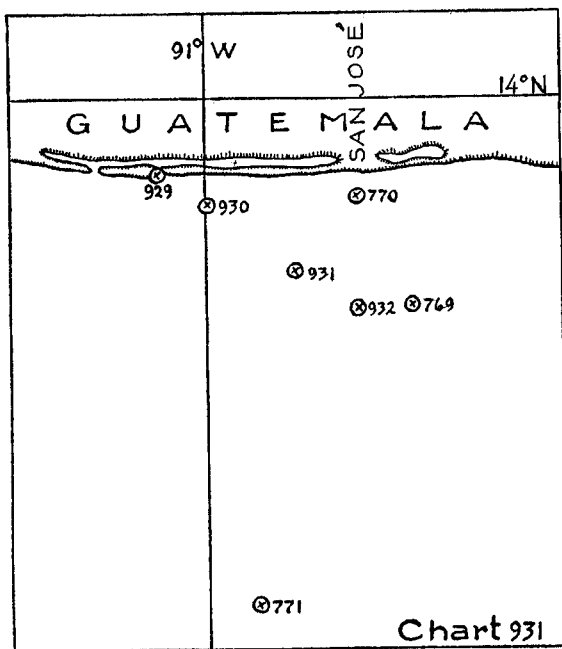


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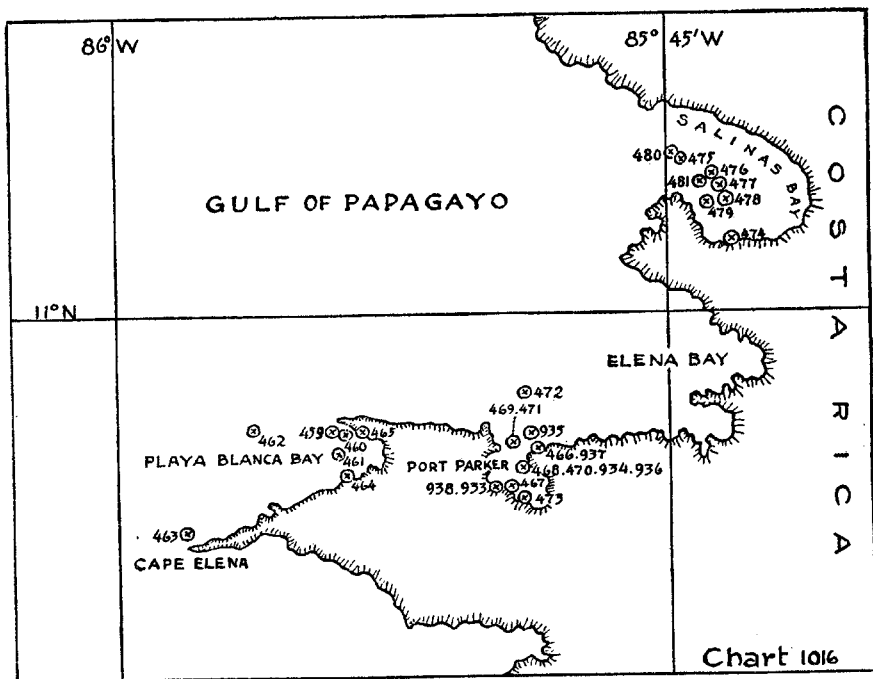


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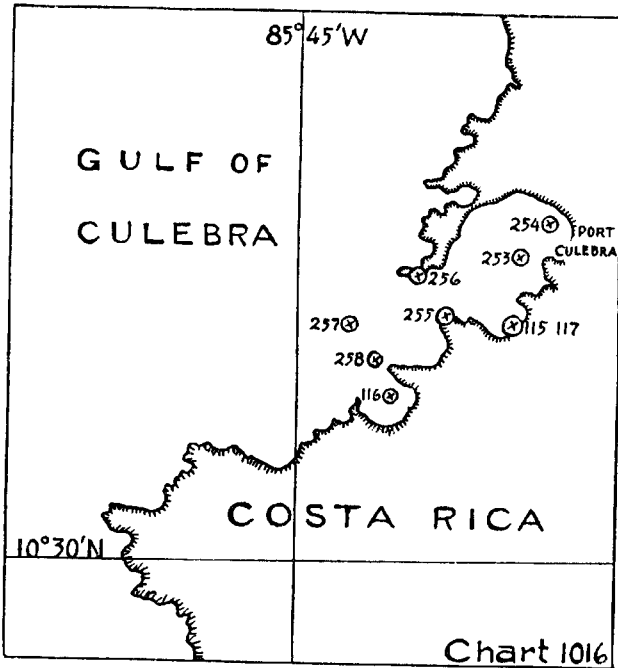


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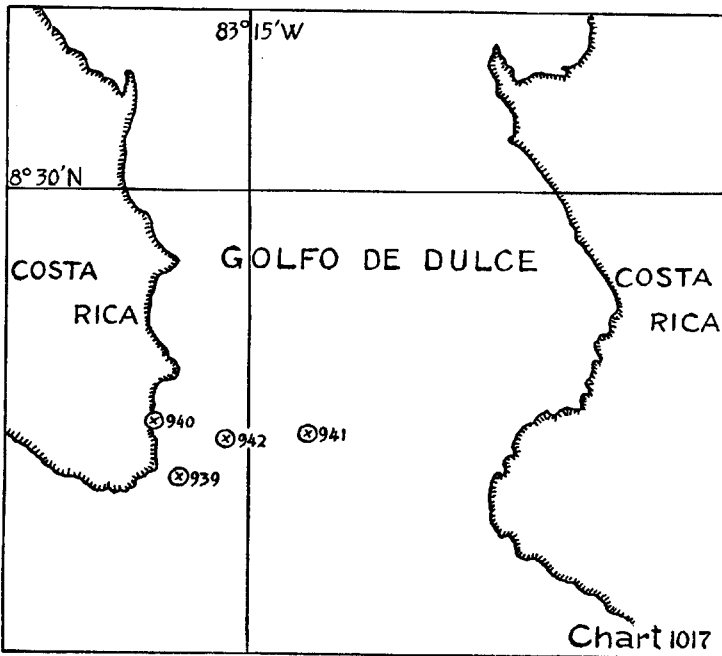


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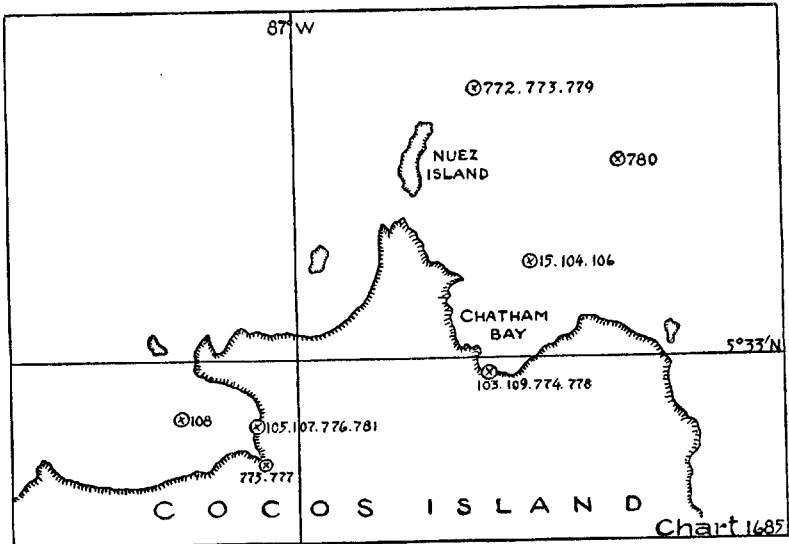


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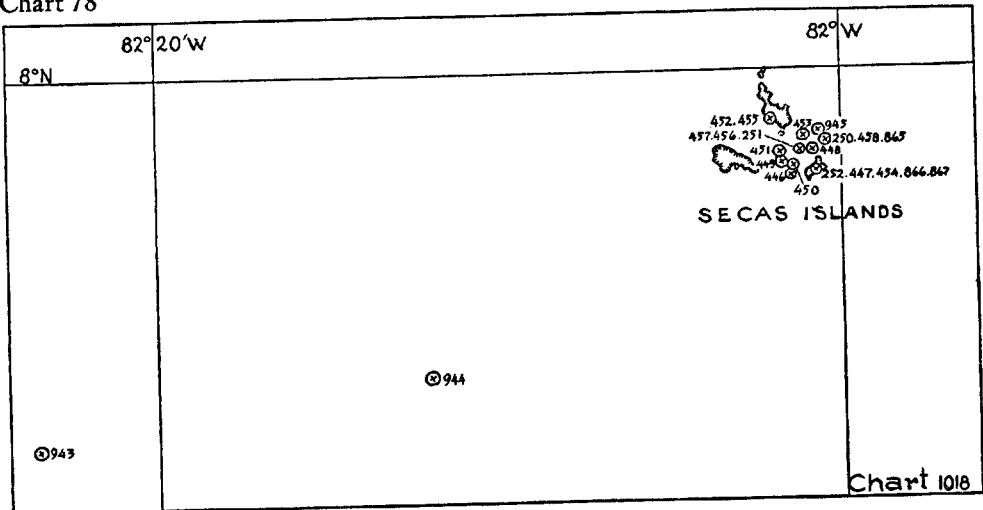


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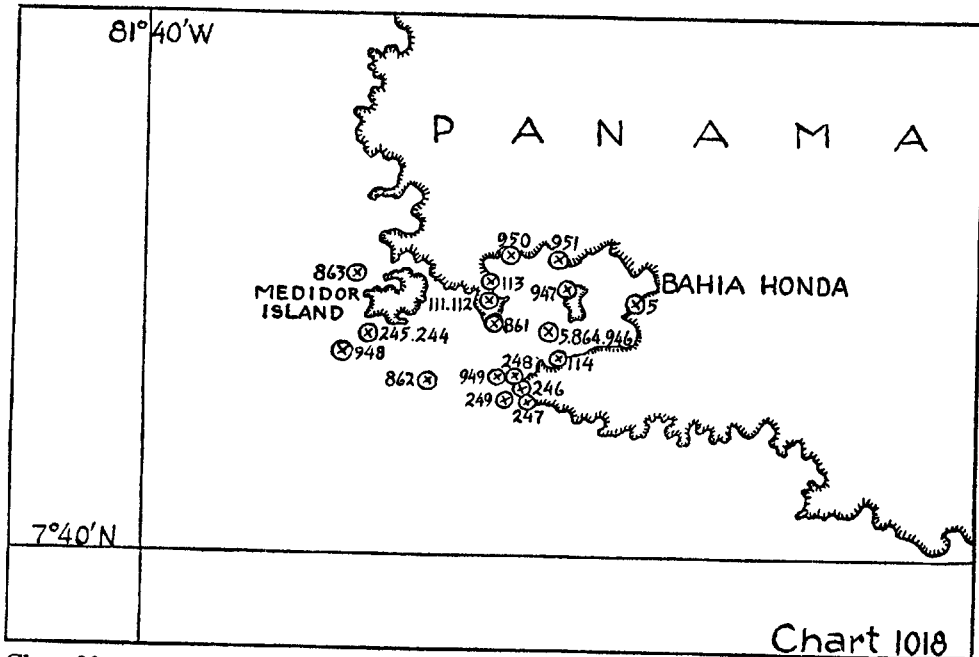


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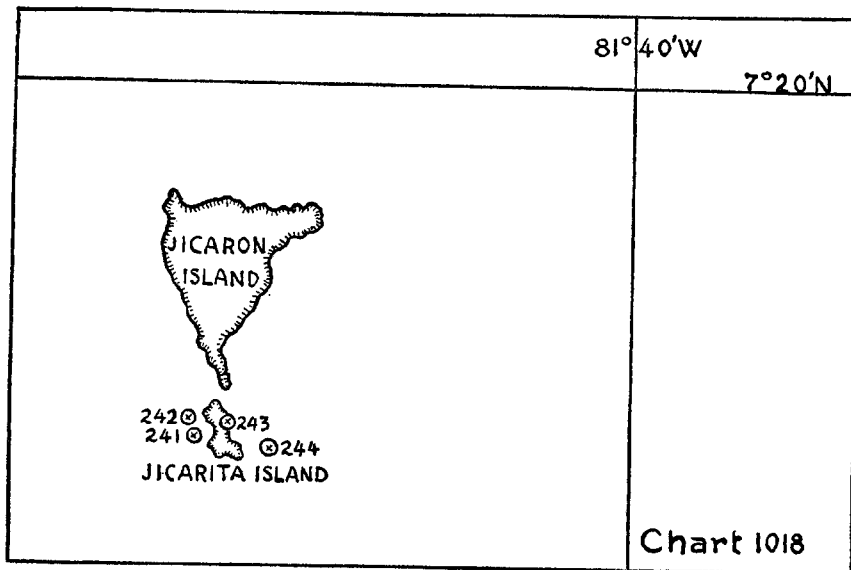


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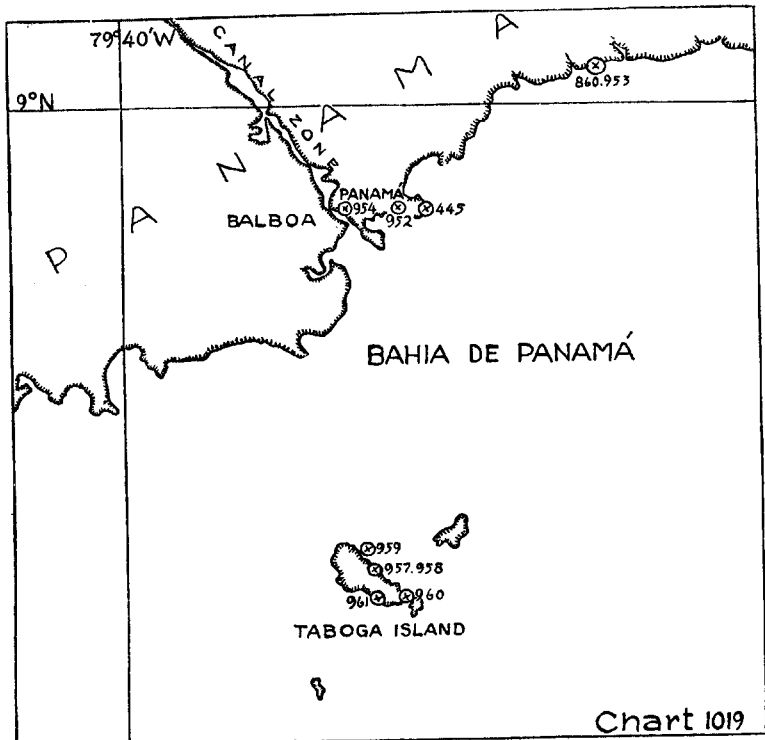


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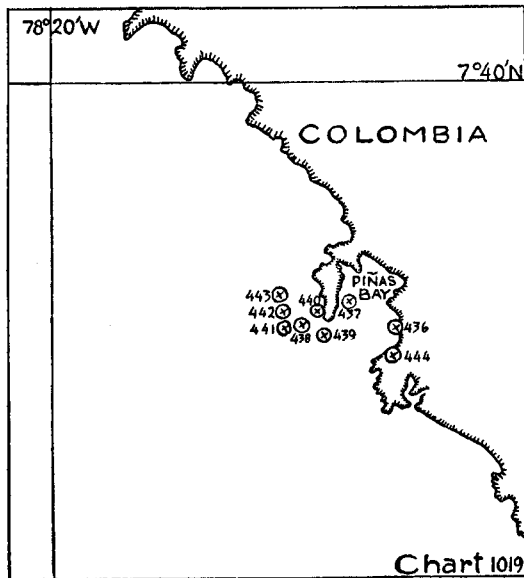


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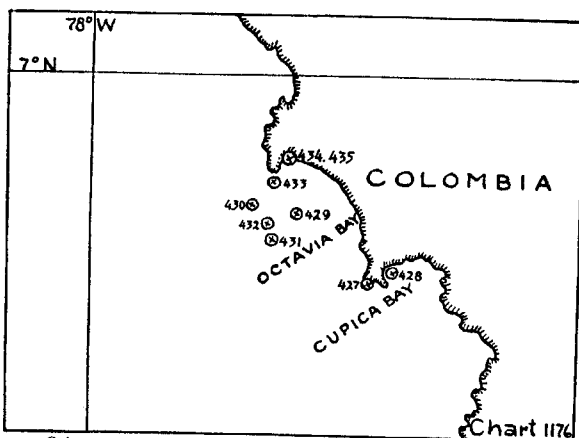


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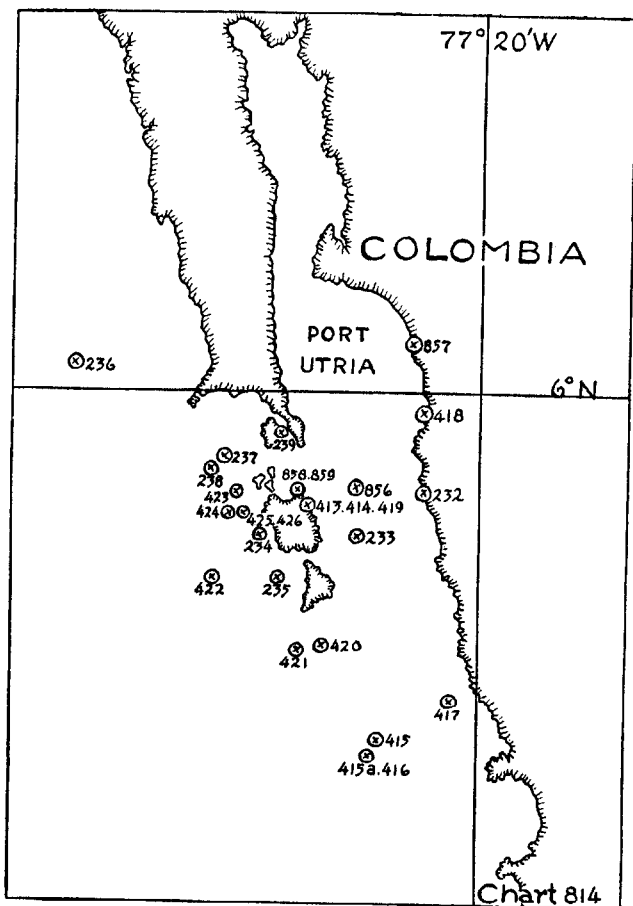


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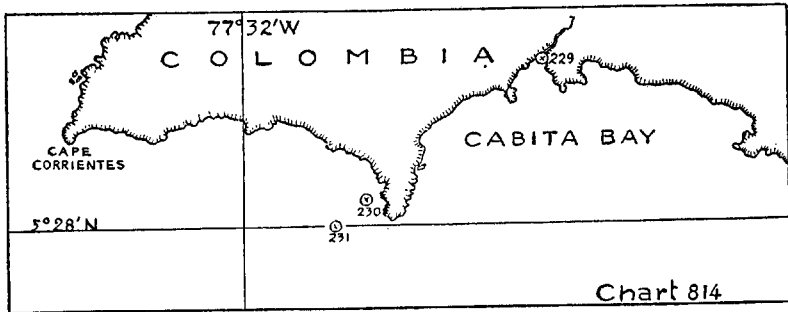


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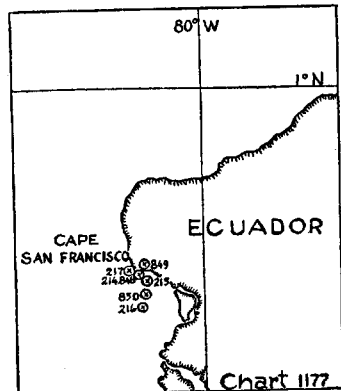
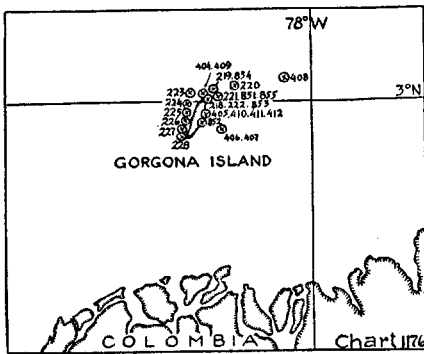


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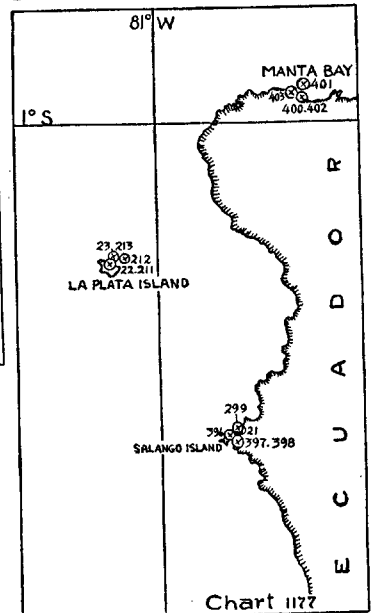
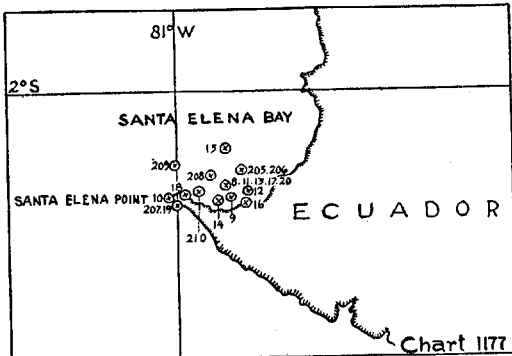


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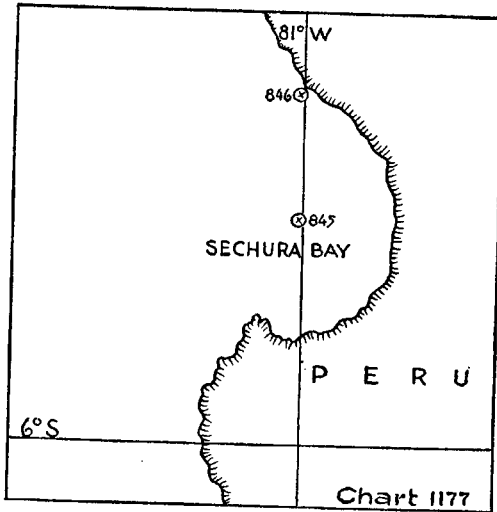


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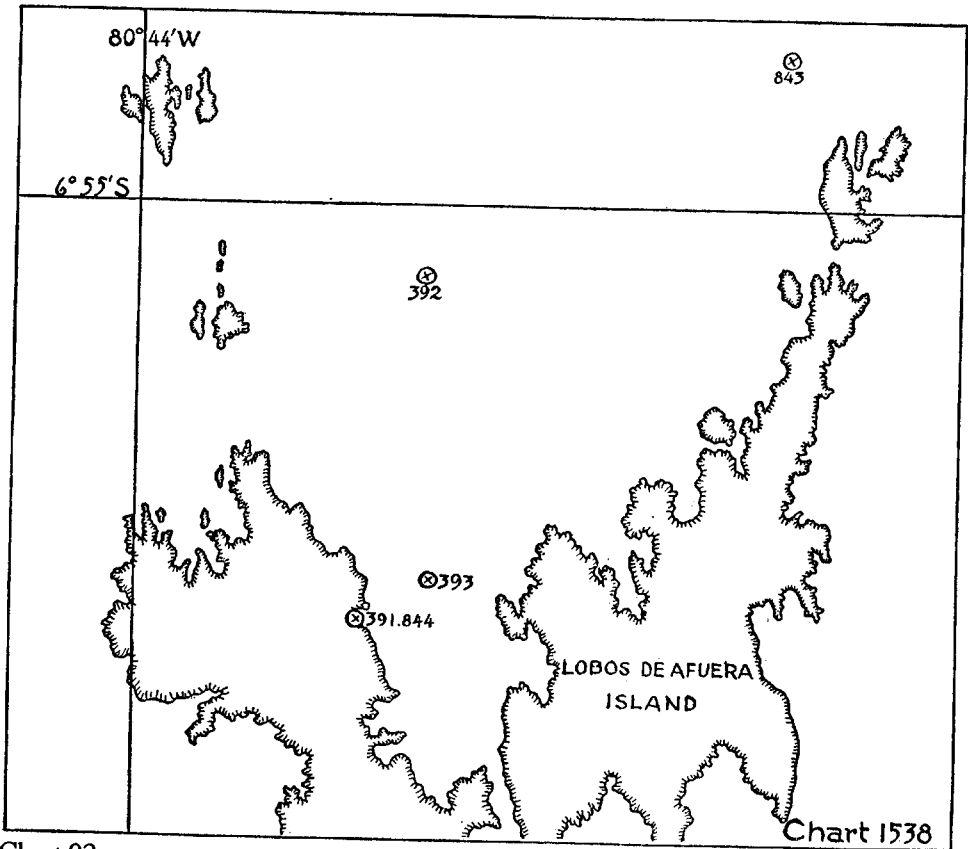


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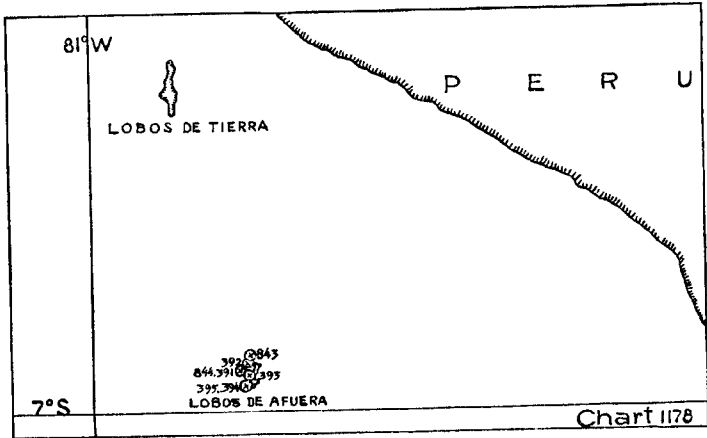


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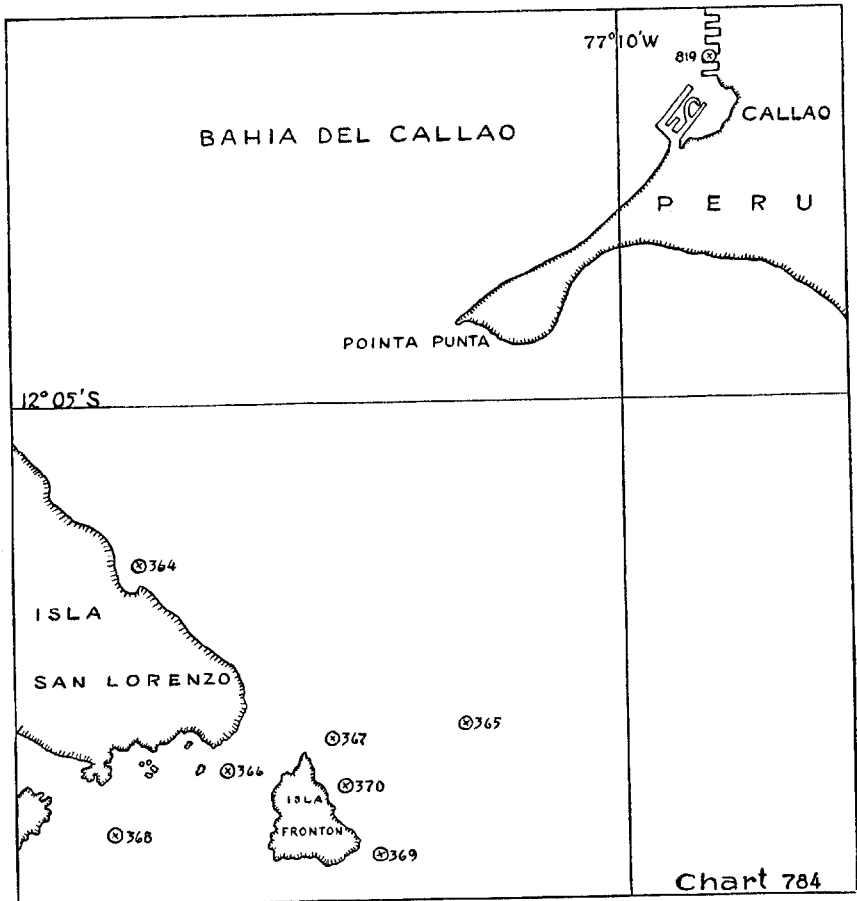


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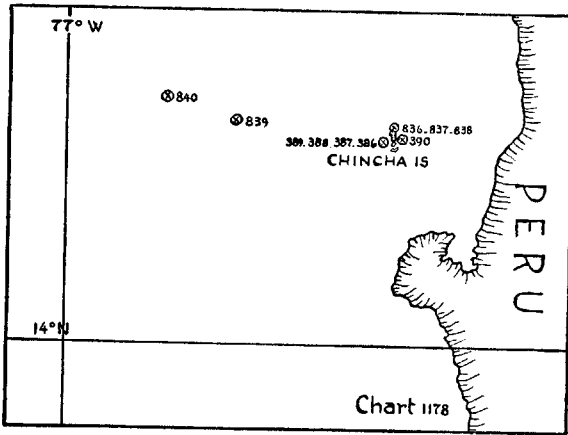


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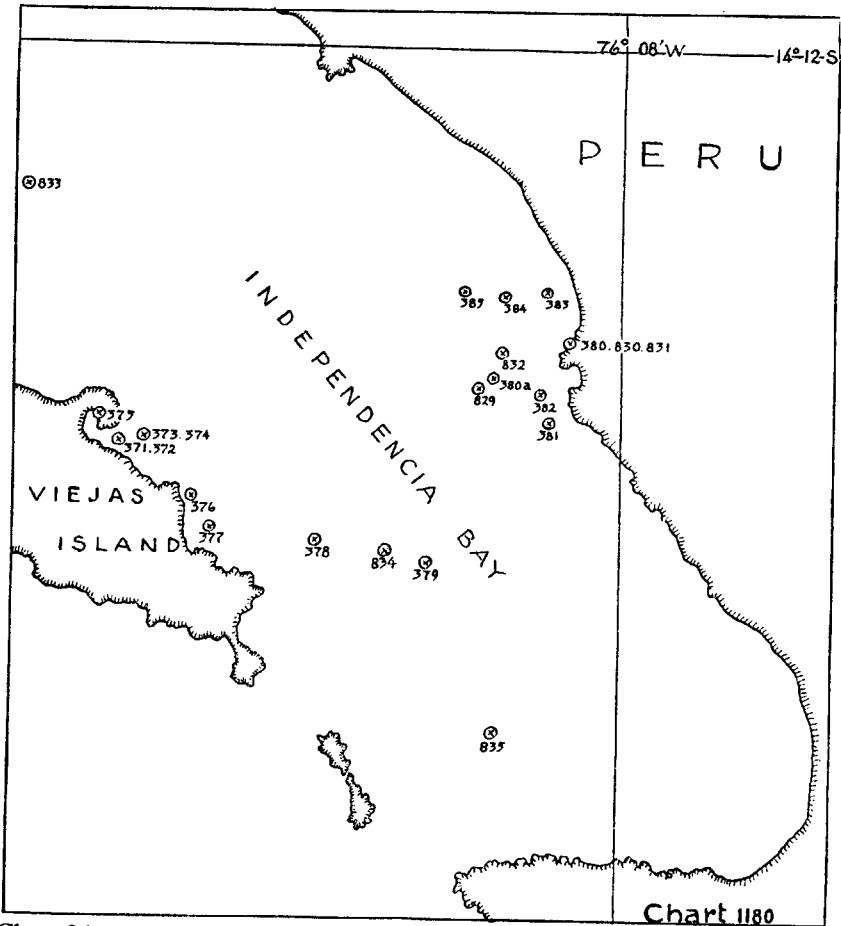


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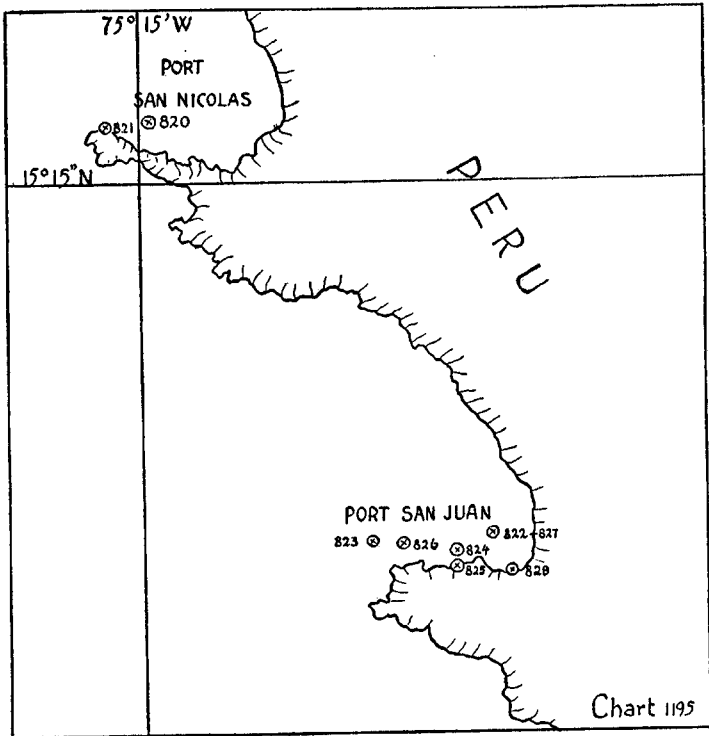


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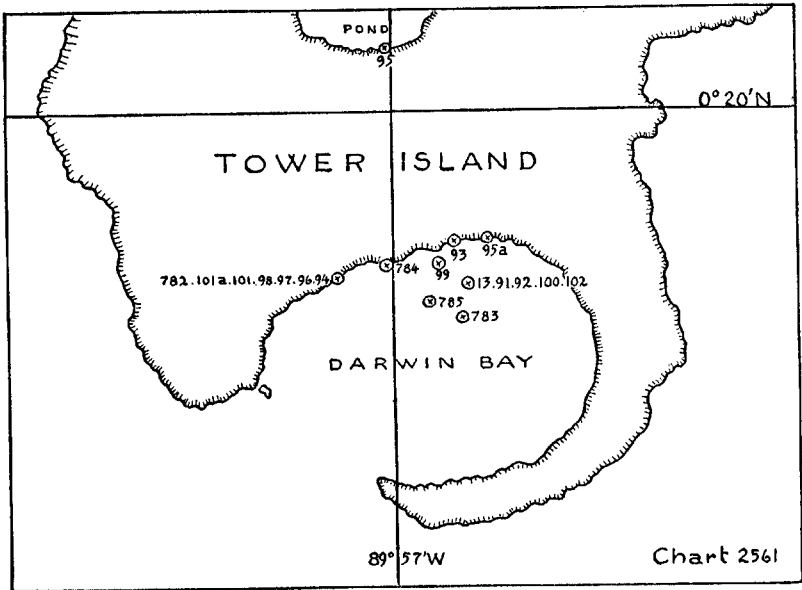


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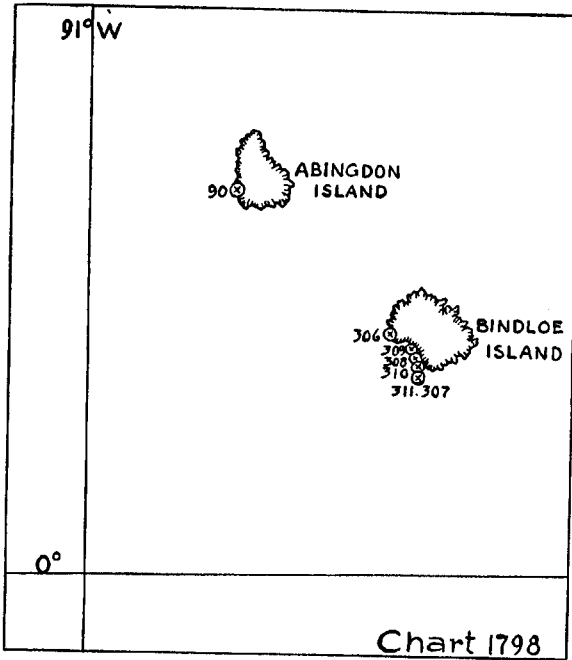


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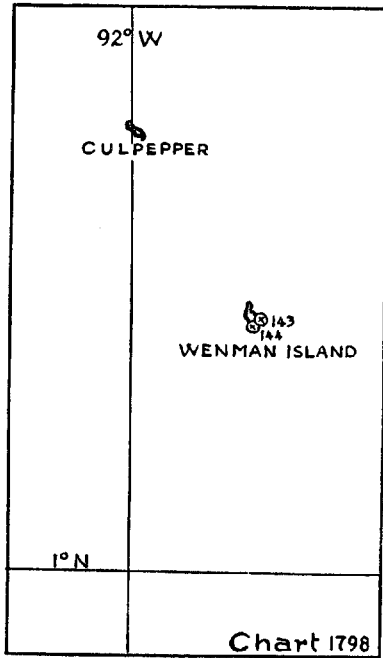


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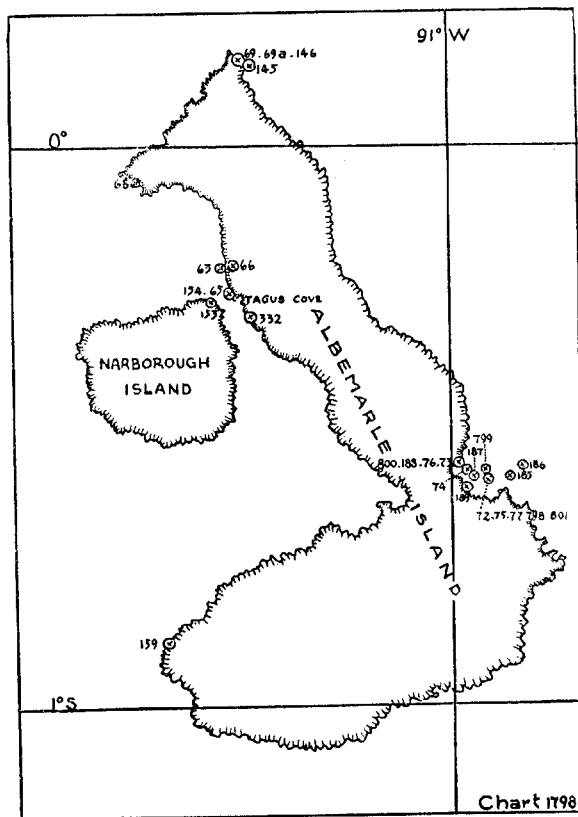


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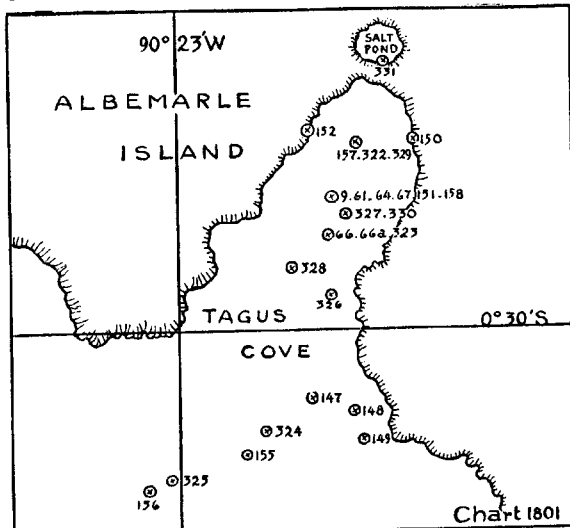


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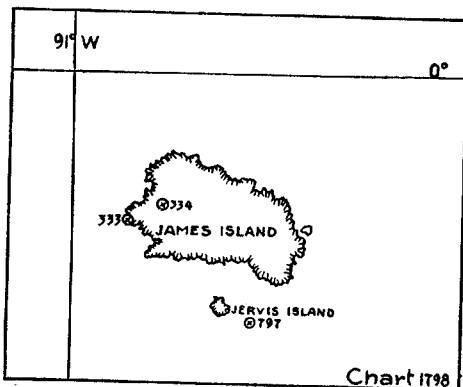


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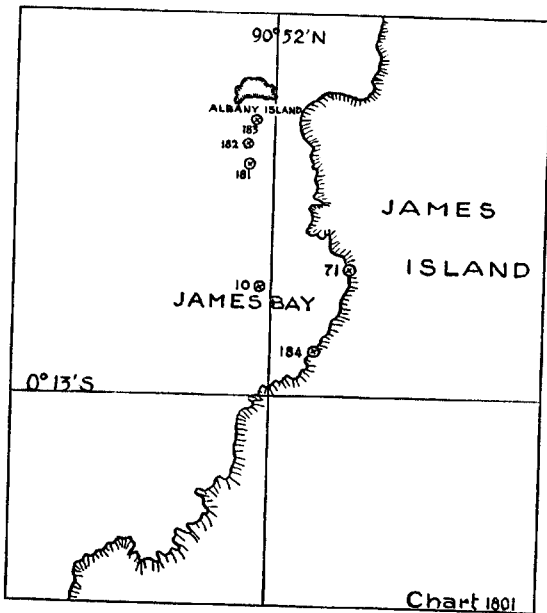


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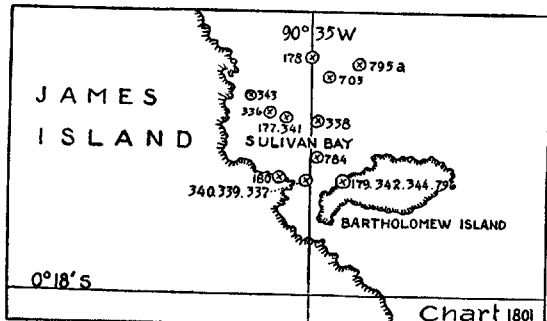


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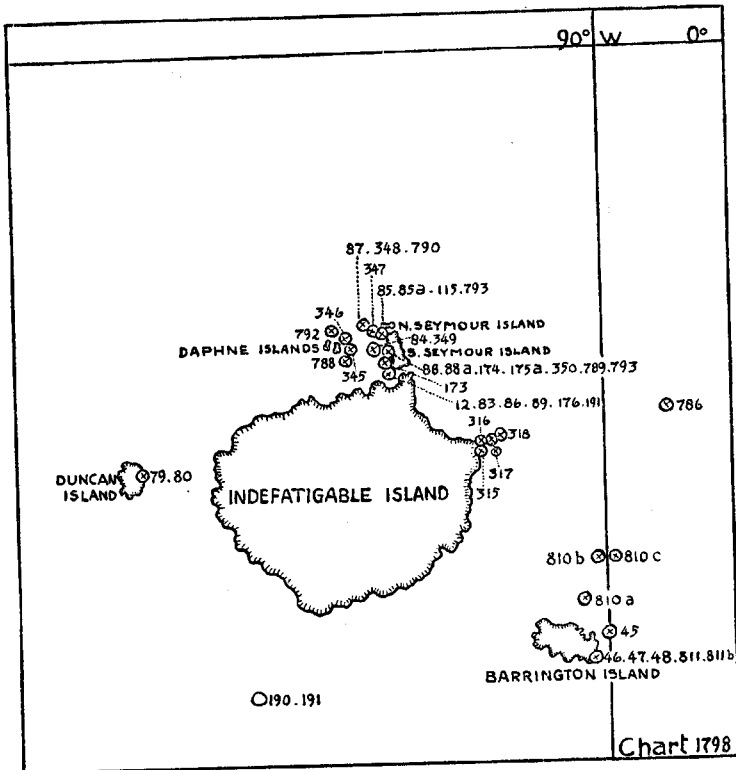


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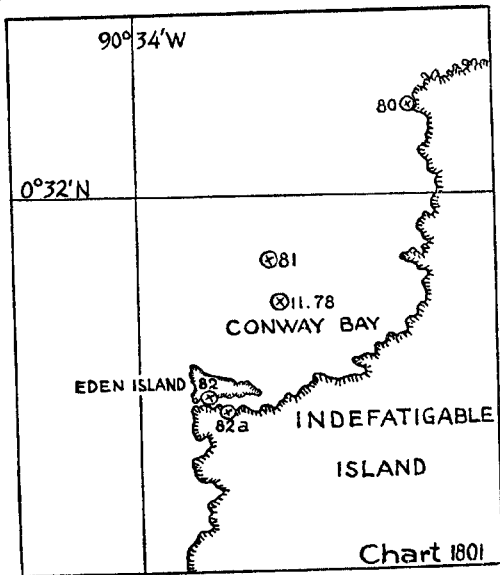


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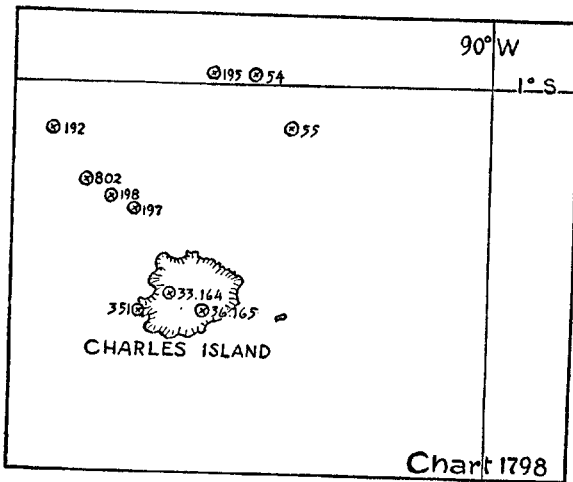
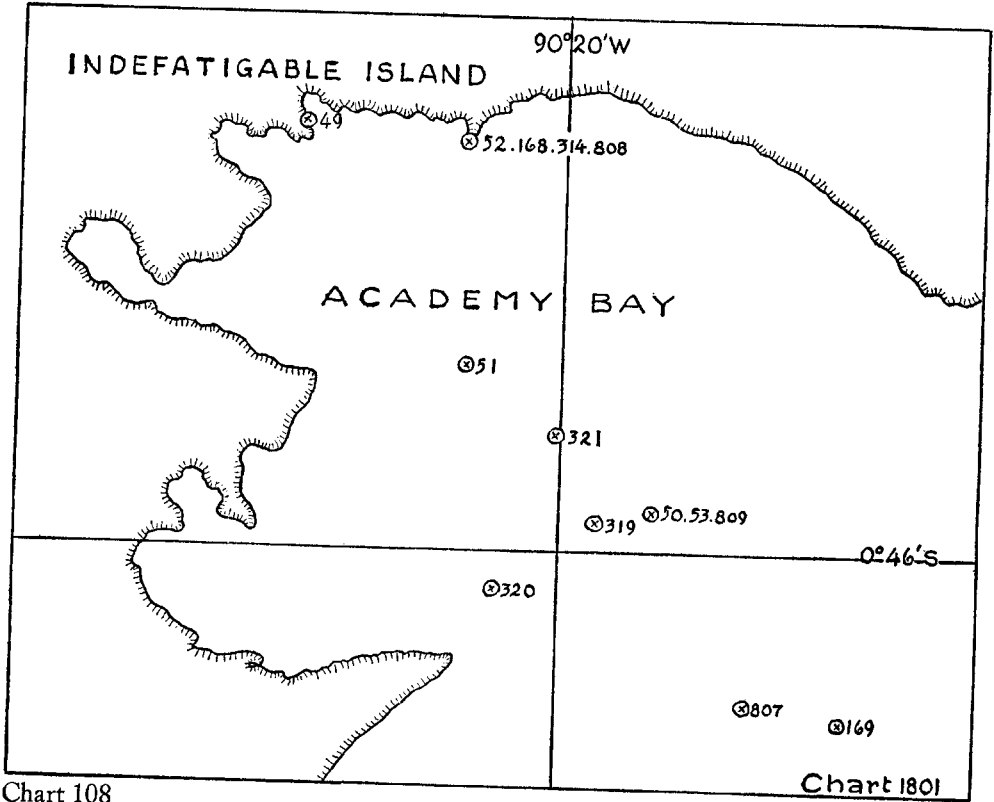


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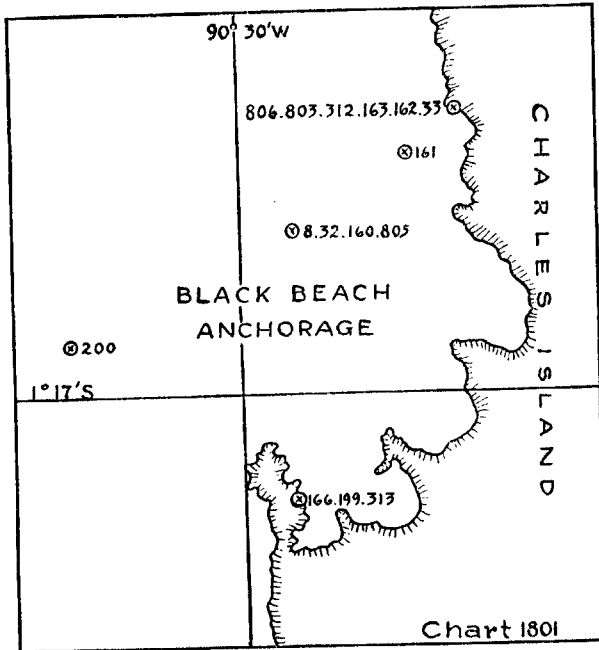


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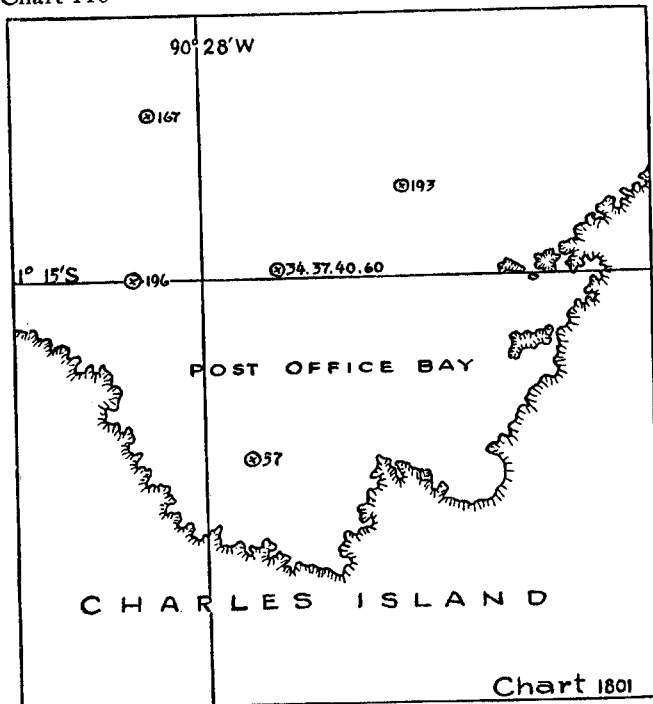


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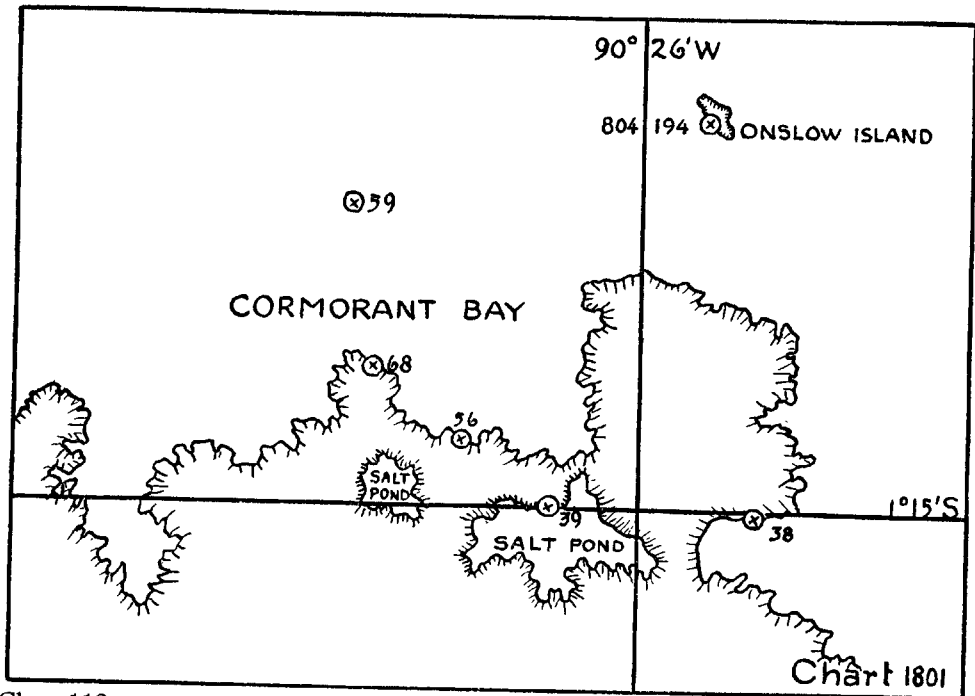


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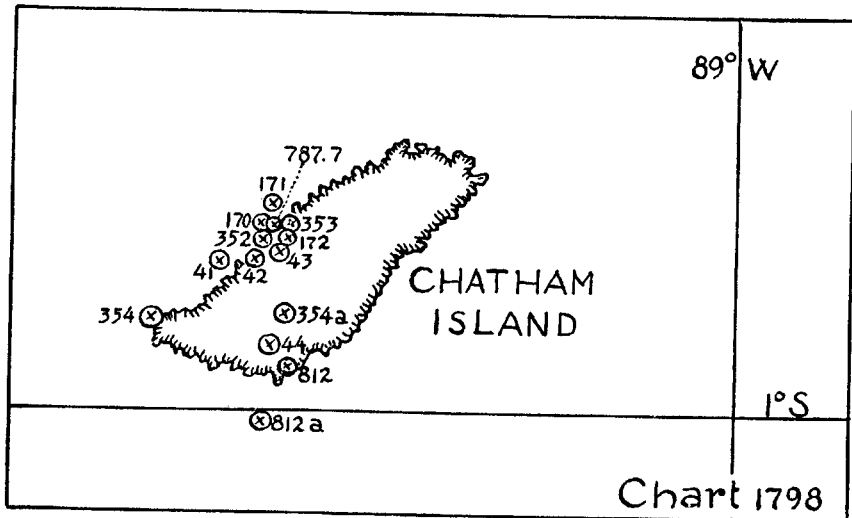


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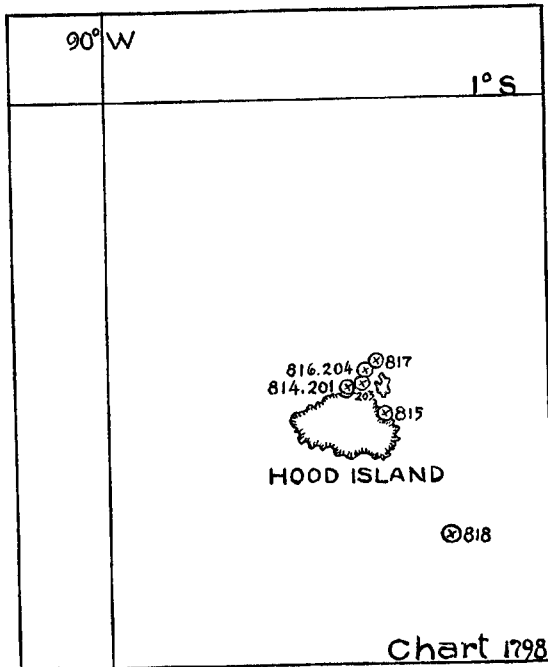


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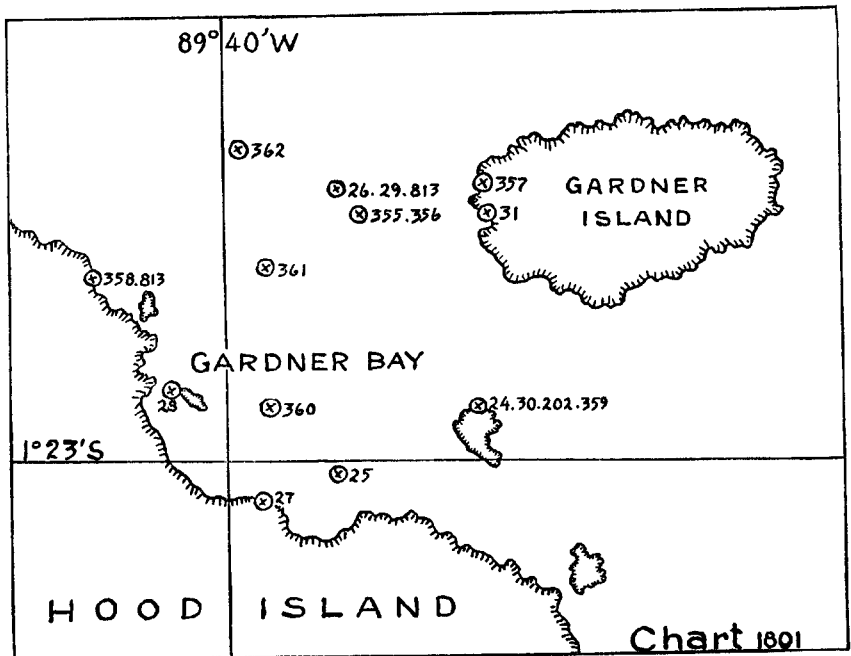


Chart 115

APPENDIX



COLLECTING STATIONS OF THE ALLAN HANCOCK FOUNDATION FOR THE YEAR 1942

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks
			Position	Time	Fms.	Position	Time	Fms.	
California									
Feb. 1942									
1444-42	1	Newport Bay, S. of Lido Island	33 36 36 N 117 55 16 W	10:00 AM	3	33 36 35 N 117 55 03 W	11:00 AM		Mud
1444a-42	1	S. of Balboa Island, Newport Bay	33 36 03 N 117 53 02 W	11:00 AM	2-3	33 36 09 N 117 53 13 W	12:00 M		
1445-42	12	Anaheim Landing, west shore	33 44 03 N 118 05 55 W	1:55 PM		33 44 09 N 118 05 11 W	4:20 PM		Intertidal Eelgrass, mud, and -1.2' tide sand
1446-42	13	Portuguese Bend	33 44 10 N 118 22 06 W	1:30 PM		33 43 49 N 118 21 19 W	5:00 PM		Intertidal Rocky beach, tide -1.4' tide pools
Mar. 1942									
Pt. Arguello, U.S.C.G.									
1447-42	13	Life Boat Station, outside breakwater	34 33 35 N 120 38 10 W	1:30 PM	Intertidal -0.9' tide		6:10 PM		Kelp-covered rocks, tide pools; excellent collecting
Pt. Arguello, U.S.C.G.									
1448-42	14	Life Boat Station, inside breakwater	34 33 35 N 120 38 00 W	2:00 PM	Intertidal -0.9' tide		4:00 PM		Rocks, sand, kelp; stormy, heavy surf, rain, and hail; pool collecting, muddy water
1449-42	13	Newport Harbor, Balboa Peninsula, bay side, floats off Fred Lewis' Landing	33 35 47 N 117 52 55 W	1:00 PM	Intertidal -0.9' tide		4:00 PM		Collecting off harbor floats and piles from a skiff
June 1942									
Corona Del Mar, Newport Harbor									
1450-42	1	Corona Del Mar, Newport Harbor	33 36 04 N 117 52 48 W	4:30 AM	Intertidal -1.5' tide		8:00 AM		Good collecting
1451-42	2	Newport Harbor, Corona Del Mar side	33 36 04 N 117 52 48 W	5:00 AM	Intertidal -1.2' tide		9:00 AM		Rocks, sand flats, eelgrass beds

Station	Date	General Locality	Position	Dredge Down Time	Fms.	Dir.	Position	Dredge Up Time	Fms.	Remarks
	June 1942									
		Long Beach at City Yacht Anchorage		Surface						From bottom of tied-up boat and pier
1452-42	14		33 35 18 N 117 52 38 W	9:00 AM			33 35 11 N 117 52 52 W	12:00 PM		Kerchoff Marine Laboratory boat
1453-42	25	Off Newport Inlet, ocean side		6-18						
	Aug. 1942									
1454-42	6	Near Long Beach		Surface						Scraped from the side of a ship at City Yacht Anchorage
1455-42	25	Pacific Grove	36 37 18 N 121 54 10 W	5:05 AM		Intertidal -0.1' tide		9:27 AM		From rocks, tide pools, and sand; shore in front of Hopkins Marine Station
1456-42	25	Monterey Bay	36 36 30 N 121 51 45 W			8				Dredged from Monterey Shale (Middle Miocene) off Del Monte
	Nov. 1942									
1457-42	9	Corona Del Mar				Intertidal -1.0' tide				Shore collecting
1458-42	10	San Pedro Breakwater				Intertidal -0.9' tide				Shore collecting
	Dec. 1942									
1459-42	7	Flat Rock Point, S. of Redondo				Intertidal -1.4' tide				Shore collecting
	Oct. 1942									
1460-42	6	Newport Bay	33 35 47 N 117 52 53 W							From floats and buoys

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks
			Position	Fms.	Dir.	Position	Time	Fms.	
Oregon Field Collecting Trip of 1942									
1461-42	June 1942 23	Hallmark Dock, Charleston	43 20 28 N 124 19 20 W	8:00 AM	Intertidal		10:00 AM		Scrappings, kelp, worm tubes; from piling and floats
1462-42	26	Oregon coast, Bandon to Cape Blanco	43 06 10 N 124 26 38 W	5:00 AM	7	42 53 15 N 124 32 30 W	8:30 PM		Fishboat <i>Roguez</i> , pulling a string of 185 crab pots; specimens from pots
1463-42	27	Old submerged jetty, Fossil Point, Coos Bay	43 21 23 N 124 18 12 W	5:00 AM	Intertidal -1.2' tide		8:00 AM		Loose rock covered with dense brown kelp; rich collecting
1464-42	28	South side, Sunset Bay, Coos Co.	43 20 06 N 124 22 32 W	6:00 AM	Intertidal -1.6' tide		9:00 AM		Loose rocks, sand, kelp holdfasts, tide pools
1465-42	28	Oregon Coast, Winchester Bay, south to Coos Bay	43 38 45 N 124 16 10 W	8:00 AM	40	43 24 00 N 124 23 40 W	1:00 PM		Otter trawler <i>Rio Janiero</i> ; sand bottom; fish and invertebrates
1466-42	29	North side, Sunset Bay, Coos Co.	43 20 09 N 124 22 02 W	6:00 AM	Intertidal -1.6' tide		9:00 AM		Mussel reefs, sandstone ledges, tide pools; sea urchin
1467-42	30	South Cove, Arago State Park, Coos Co.	43 28 18 N 124 23 50 W	7:30 AM	Intertidal -1.6' tide		10:00 AM		Broken rock, tide pools
July 1942									
1468-42	1	Middle Bay, Cape Arago, State Park, Coos Co.	43 18 20 N 124 24 08 W	8:30 AM	Intertidal -1.2' tide		10:00 AM		Rocks, kelp, tide pools
1469-42	2	Institute of Marine Biology, Charleston	42 20 43 N 124 19 29 W	9:00 AM	Intertidal -0.8' tide		11:00 AM		Screening, sand flats in front of station
June 1942									
1470-42	30	Off Coos Bay	43 24 45 N 124 22 18 W	5:00 AM	35	43 34 04 N 124 16 50 W	8:30 PM		6 hauls of otter trawl <i>Rio Janiero</i> ; sand and mud bottom

Station	Date	General Locality	Dredge Down Position	Dredge Down Time	Fms.	Dir.	Dredge Up Position	Dredge Up Time	Fms.	Remarks
July 1942										
1471-42	1	Off 10-mile Creek, S. of Winchester Bay	43 37 40 N 124 15 53 W	5:00 AM	20-40		43 34 30 N 124 14 58 W	9:00 PM		6 hauls, otter trawl <i>Rio Janiero</i> and triangular net; sand
1472-42	2	North of Winchester Bay	43 41 26 N 124 14 40 W	6:00 AM	58-26		43 46 20 N 124 19 17 W	9:00 PM		6 hauls, <i>Rio Janiero</i> ; triangular dredge; sand, fine mud
1473-42	3	Off Siuslaw-Lane Co. line	43 50 55 N 124 12 30 W	6:00 AM	22-28		43 47 15 N 124 13 20 W	12:30 PM		2 hauls, <i>Rio Janiero</i> ; sand; squid eggs
1474-42	8	Charleston, mud flats north of bridge, east side	43 20 25 N 124 19 00 W	2:00 PM	Intertidal +2.7' tide			4:00 PM		Screening and dig- ging in mud and sand flats
1475-42	10	South Slough, Charleston	43 20 24 N 124 18 59 W	2:15 PM	1-2			4:30 PM		Dredging with triangular dredge from rowboat; poor hauls
1476-42	12	Old submerged jetty, Coos Bay	43 21 23 N 124 18 12 W	6:15 AM	Intertidal -0.4' tide			12:15 PM		Loose rocks, tide pools, kelp holdfasts
1477-42	13	Agate Beach under Yaquina Head Light	44 40 35 N 124 04 42 W	5:00 AM	Intertidal -0.6' tide			11:00 AM		Rock reef, mussel bed, kelp, tide pools, loose rock
1478-42	13	Yaquina Bay off Yaquina	44 35 00 N 124 01 10 W	2:00 PM	2-5		44 37 00 N 124 00 55 W	4:30 PM		Mud, dead shells; poor bottom; mainly hydroids
1479-42	14	Boiler Bay, north of Depoe Bay	44 48 55 N 124 04 00 W	6:00 AM	Intertidal -0.6' tide			11:00 AM		Flar rocks, large boulders; too many algae
1480-42	15	Old R.R. spur, pier, and loose rocks, mud flats, Yaquina Bay	44 37 25 N 124 00 15 W	9:00 AM	Intertidal -0.5' tide			12:00 PM		Loose rock, mud banks; mainly crabs and mollusks

Station	Date	General Locality	Dredge Down		Dredge Up		Remarks			
			Position	Time	Fms.	Dir.	Position	Time	Fms.	
1481-42	15	Off Ocean Park	44 50 45 N 124 21 35 W	6:00 AM	72-76		44 49 10 N 124 21 00 W	8:00 PM		Dragboat <i>Wasca</i> , much mud; fish and invertebrates washed out; along side Newport docks
1482-42	21	Railroad bridge, Coos Bay	43 25 38 N 124 14 20 W	10:30 AM	2-4		43 25 25 N 124 14 47 W	10:50 AM		Dredging from the <i>Rio Janiero</i> with triangular dredge; sand, bark, and wood chips
1483-42	21	South of Empire dock, Coos Bay	43 23 02 N 124 17 28 W	11:10 AM	2-4		43 23 18 N 124 17 22 W	11:30 AM		Dredging from <i>Rio Janiero</i> ; sand, shells, sawdust, and bark
1484-42	21	W. of Fossil Point, Coos Bay	43 21 45 N 124 18 56 W	11:45 AM	4-6		43 21 23 N 124 19 08 W	12:15 PM		Dredging from <i>Rio Janiero</i> ; fine sand, some animal life
1485-42	24	Hallmark dock, Charleston	43 20 28 N 124 19 20 W	6:00 PM	+1.4'	Intertidal		7:10 PM		Worm tubes from piles and floats
1486-42	25	Collecting off Coos Head, Coast Guard Sta., Coos Bay	43 20 02 N 124 19 12 W	5:00 AM	-0.9'	Intertidal		9:30 AM		Shore collecting; loose sandstone, algae covered with some sand
1487-42	26	Shore collecting, Middle Bay, Cape Arago State Park, Coos Co.	43 18 20 N 124 24 08 W	5:00 AM	-1.3'	Intertidal		10:00 AM		Shore; loose rocks, tide pools, and kelp
1488-42	27	Squaw Island, off Cape Arago Light, Coos Co.	43 20 19 N 124 22 35 W	6:15 AM	-1.6'	Intertidal		9:30 AM		Rocky reef, some loose rocks kelp covered
1489-42	28	North Bay, Cape Arago State Park, Coos Co.	43 19 00 N 124 24 15 W	7:00 AM	-1.6'	Intertidal		12:10 PM		Loose rocks, shale reef out beyond islands, kelp; good collecting

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks
			Position	Time	Fms. Dir.	Position	Time	Fms.	
1490-42	29	Cape Arago light-house, reef and bight, Coos Co.	43 20 26 N 124 22 24 W	7:30 AM	Intertidal -1.4' tide	43 20 26 N 124 22 24 W	11:00 AM	Loose rock, shale ledges, heavy kelp; good algae grounds	
1491-42	29	Cape Arago light-house, reef and bight, Coos Co.	43 20 26 N 124 22 24 W	7:30 AM	Intertidal -1.4' tide	43 20 26 N 124 22 24 W	11:00 AM	Material from 5 gts. of eelgrass root masses	
1492-42	30	South Bay, Cape Arago State Park, Coos Co.	43 28 18 N 124 23 50 W	8:30 AM	Intertidal -1.1' tide	43 28 18 N 124 23 50 W	12:30 PM	Loose rock, tide pools, kelp	
1493-42	31	North Beach, Cape Arago State Park, Coos Co.	43 19 00 N 124 24 15 W	9:45 AM	Intertidal -0.5' tide	43 19 00 N 124 24 15 W	12:40 PM	Reefs, tide pools, loose rocks	
1494-42	31	South Slough, beyond bridge ½ mile, Coos Bay	43 19 15 N 124 19 13 W	8:00 AM	Intertidal -0.5' tide	43 19 15 N 124 19 13 W	11:40 AM	Mud and sand flats, digging and screening; mud clams, shrimp, and worms	
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1495-42	1	Mud flats, South Slough, above island, Coos Bay	43 18 30 N 124 18 40 W	8:00 AM	Intertidal +0.1' tide	43 18 30 N 124 18 40 W	11:30 AM	Mud, sand flats, digging and screening	
1496-42	2	South Slough, one mile beyond bridge, Coos Bay	43 19 26 N 124 19 02 W	10:00 AM	Intertidal +0.8' tide	43 19 26 N 124 19 02 W	1:30 PM	Hard-packed sand and eelgrass; Empire clam bed	
1497-42	7-10	3½ miles W. of Depoe Bay	44 49 10 N 124 22 22 W	5:00 AM	60-74	44 46 30 N 124 25 00 W	8:00 PM	15 hauls with 120-foot mouth otter trawl on dragboat <i>Andrea</i>	
1498-42	9	3½ miles W. of Depoe Bay	44 49 10 N 124 22 22 W	7:35 AM	60-74	44 46 30 N 124 25 00 W	9:00 AM	Life taken from a water-logged maple stump full of holes; <i>Andrea</i>	

Station	Date	General Locality	Dredge Down			Dredge Up			Remarks
			Position	Time	Fms. Dir.	Position	Time	Fms.	
1499-42	9	35 miles W. of Depoe Bay	44 49 10 N 124 22 22 W	6:00 AM	Surface	44 46 30 N 124 25 00 W	7:00 AM	Material netted off surface of a tide rip; algae, driftwood, jelly-fish, barnacles	
1500-42	13	Mud flats around Charleston dock and bridge, Coos Bay	43 20 26 N 124 19 20 W	6:20 AM	Intertidal -0.5' tide		10:15 AM	Digging and screening mud, sand, some eelgrass	
1501-42	14	Old breakwater jetty in Coos Bay, Fossil Point	43 21 23 N 124 18 12 W	8:00 AM	Intertidal -0.4' tide		11:30 AM	Loose rocks, shale, algae beds	
1502-42	15	3/4 mile above bridge in South Slough, Coos Bay	43 19 33 N 124 19 10 W	7:00 AM	Intertidal -0.1' tide		10:30 AM	Eelgrass, mud; Empire clams	

