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U.S. PROGRAM IN BIOLOGY  
INTERNATIONAL INDIAN OCEAN EXPEDITION

FINAL CRUISE REPORT  
ANTON BRUUN CRUISES 7,8,9

VOLUME 1 (of 2)

INTERNATIONAL  
INDIAN OCEAN  
EXPEDITION

A circular logo featuring a stylized globe with a wavy line representing the equator. Two large, dark, curved arrows are positioned on either side of the equator, pointing towards each other and curving upwards and downwards respectively, suggesting a clockwise or counter-clockwise rotation.

WOODS HOLE OCEANOGRAPHIC INSTITUTION

OCTOBER, 1965

U. S. PROGRAM IN BIOLOGY  
INTERNATIONAL INDIAN OCEAN EXPEDITION  
Final Report: R/V ANTON BRUUN, Cruises 7, 8 and 9  
Volume 1 (of 2)

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INTRODUCTION

Presented in this report are the reduced oceanographic, chemical, and biological data, station lists of plankton and benthic collections, and bathythermograph positions for Cruises 7 and 8 of the R/V ANTON BRUUN; and the station lists of reef and inshore, plankton, benthic, and miscellaneous biological collections, and bathythermograph positions for Cruise 9. Narrative reports of Cruises 7 and 8 were issued as News Bulletins No. 9 (Jan. 1965) and No. 10 (Feb. 1965), respectively, by the U. S. Program in Biology, IIOE.

Cruises 7 and 8 were devoted primarily to benthic biology. On Cruise 7, which concentrated on the area east of South Africa and south of Madagascar (Fig. 1), collections of the bottom fauna were made with a variety of gear including Campbell and Van Veen grabs, Phleger and trigger corers, Menzies and Agassiz trawls, rock dredges, and Dietz-Lafond snappers. On Cruise 8 collections were made in the Mozambique Channel and adjacent continental shelves (Fig. 2) mainly with a 40 ft. Gulf of Mexico type shrimp trawl, Menzies trawl, and Ockelman dredge.

Cruise 9 emphasized reef and shore collecting in some of the more remote island areas in the southwestern Indian Ocean (Fig. 3). Specimens were obtained by SCUBA and free diving, rotenone poisoning, and collecting in the exposed intertidal zones of the reef and shore areas of Mombasa, Kenya (Fig. 4); Latham Island south of Zanzibar; Grand Comore and Mayotta Islands (Figs. 5 and 6); Aldabra and Farquhar Islands (Figs. 7 and 8); St. Joseph's

Introduction (continued)

and D'Arros Islands in the Amirante Isles (Fig. 9); and Mahe and Cerf Islands in the Seychelles (Fig. 10). Although general collections were made at all these areas, certain groups received special attention because of specific interests among the scientific party. These included macroscopic algae, sea-grasses, mollusks, commensal and parasitic copepods, parasitic helminths, nemerteans, ostracods, lancelets, pontonid shrimps, fishes and Ascothoracida, a parasitic group of barnacles found in the certain cavities of zoantharians and echinoderms.

At most of the island stations, longline gear and a 200 ft. shark gill net were fished. Bottom trawling with a Gulf of Mexico shrimp trawl was impractical because of the many pinnacles and dome-shaped formations around the various islands. Towards the end of Cruise 9, a series of trawl hauls was made on the narrow continental shelf along the Somali coast.

Most of the Cruise 9 scientific party left the ship at Aden on December 20. The remaining members made a series of plankton collections in the Red Sea, and disembarked at Hurghada, U.A.R. to make shore collections.

Table 1

## Itinerary, Cruises 7, 8, 9

29 July 1964	Departed Durban (SOUTH AFRICA) - Start Cruise 7
7 August	Arrived Tulear (MADAGASCAR)
10 August	Departed Tulear
20 August	Arrived Lourenco Marques (MOZAMBIQUE)
22 August	Departed Lourenco Marques
10 September	Arrived Durban - End Cruise 7
25 September	Departed Durban - Start Cruise 8
5 October	Arrived Beira (MOZAMBIQUE)
8 October	Departed Beira
24 October	Arrived Nossi Be (MADAGASCAR)
24 October	Departed Nossi Be
24 October	Arrived Diego Suarez (MADAGASCAR)
27 October	Departed Diego Suarez
28 October	Arrived Nossi Be
29 October	Departed Nossi Be
9 November	Arrived Mombasa (KENYA) - End Cruise 8

Table 1 (continued)

18 November	1964	Departed Mombasa (KENYA) - Start Cruise 9
22 November		Arrived Grande Comore (COMORO ISLANDS)
22 November		Departed Grande Comore
23 November		Arrived Mayotta (COMORO ISLANDS)
26 November		Departed Mayotta
27 November		Arrived Grande Comore
28 November		Departed Grande Comore
30 November		Arrived Dar es Salaam (TANZANIA)
30 November		Departed Dar es Salaam
2 December		Arrived Aldabra Islands
4 December		Departed Aldabra Islands
6 December		Arrived Farquhar Islands
6 December		Departed Farquhar Islands
8 December		Arrived St. Joseph and D'Arros (AMIRANTE ISLANDS)
8 December		Departed St. Joseph and D'Arros
9 December		Arrived Mahe (SEYCHELLE ISLANDS)
12 December		Departed Mahe
20 December		Arrived Aden (ADEN)
22 December		Departed Aden
28 December		Arrived Hurghada (U.A.R.) - End Cruise 9

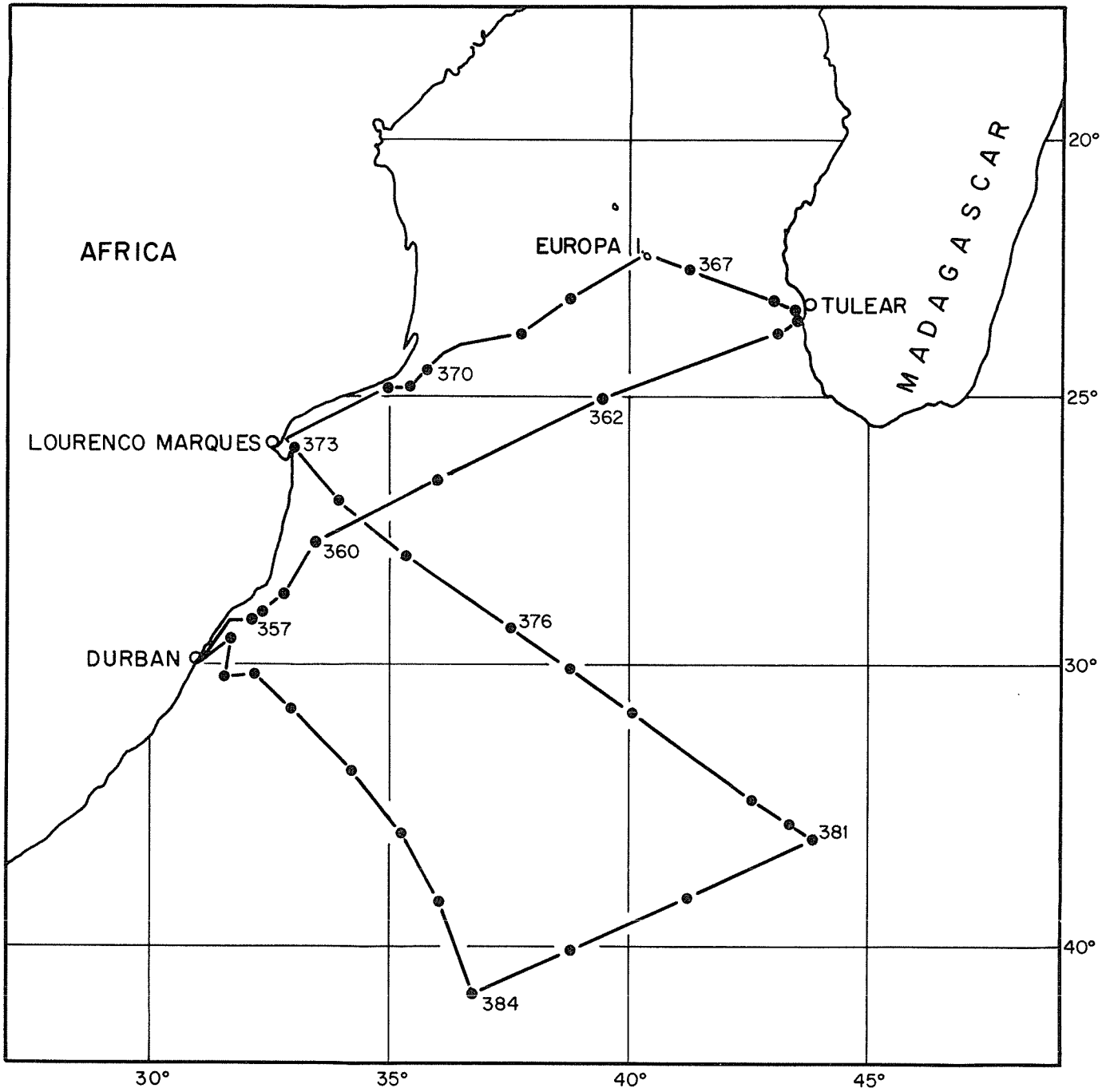


Figure 1 - Cruise track - Cruise 7

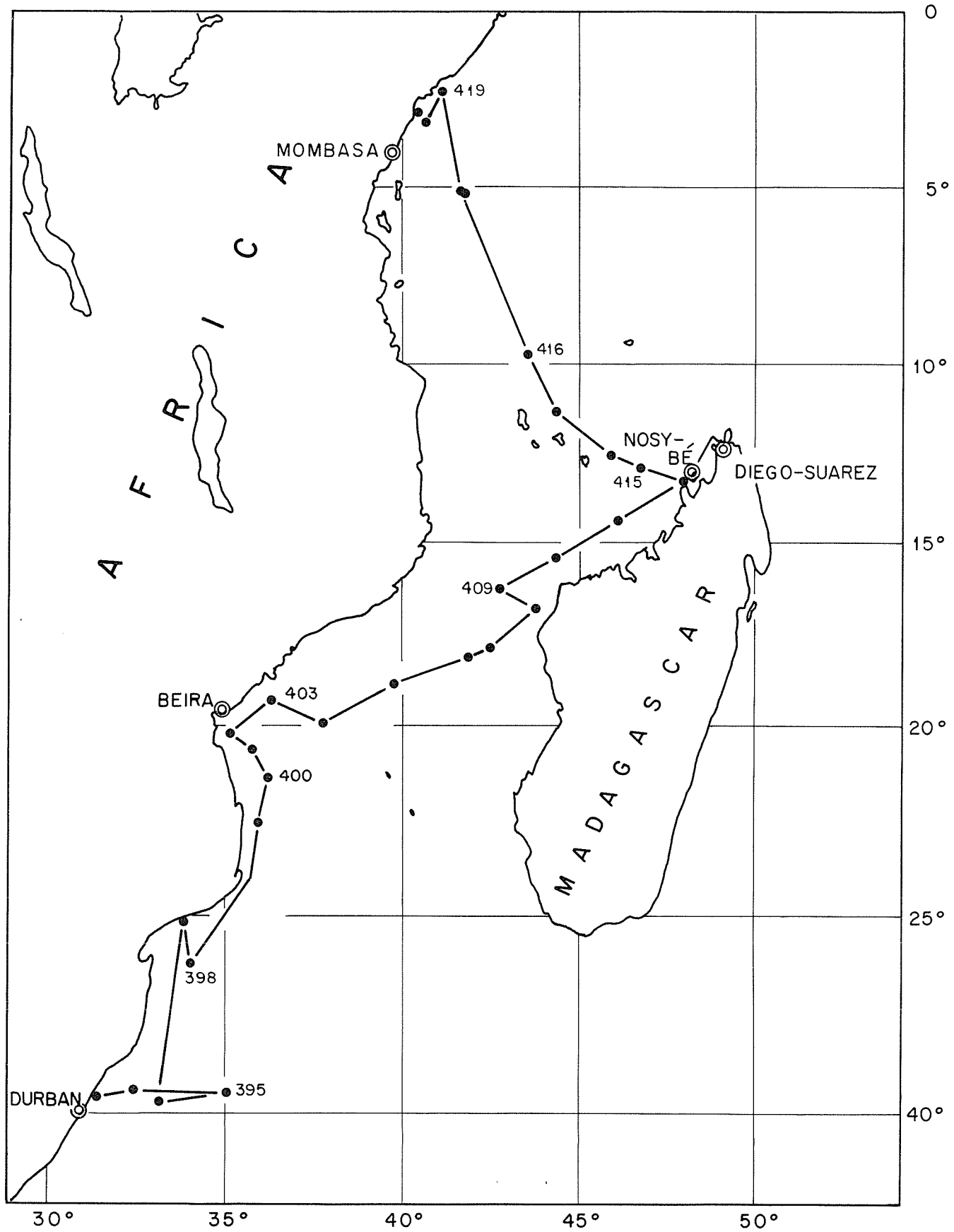


Figure 2 - Cruise track - Cruise 8



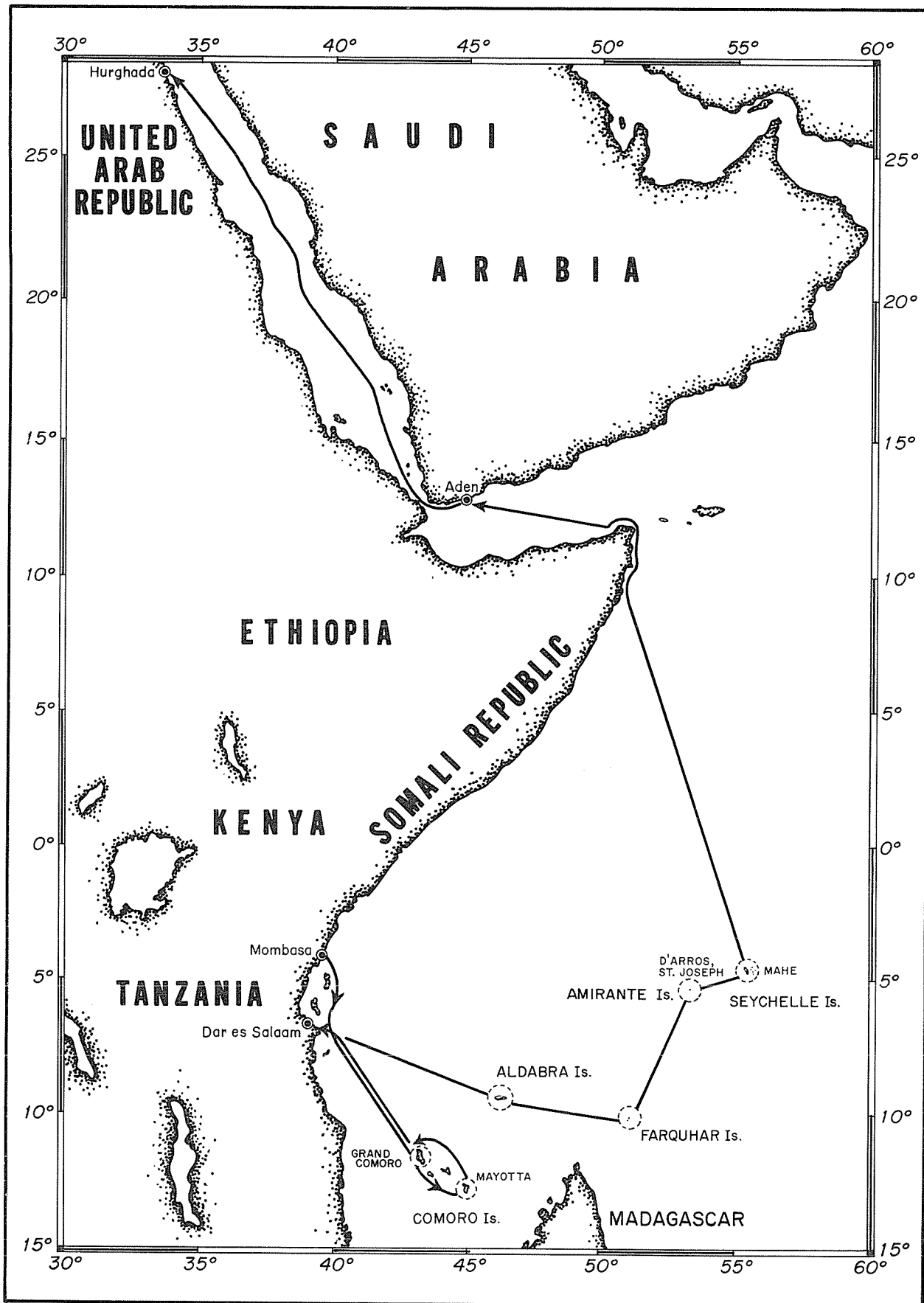


Figure 3 - Cruise track - Cruise 9

Table 2.

## Key to Abbreviations

## A. PLANKTON NETS

IOSN:	Indian Ocean Standard Net 113 cm diameter 0.33 mm mesh aperture
75M25:	75 cm diameter 0.064 MM mesh aperture (No. 25 mesh)
NV70:	Modified Nansen Vertical Net 70 cm diameter 0.239 mm mesh aperture (No. 6 mesh) Bucket 0.569 mm mesh aperture (No. 0 mesh)
75M3	75 cm diameter 0.333 mm mesh aperture (No. 3 mesh)

## B. OTHER SAMPLING GEAR

DR:	Dredge
GMT:	Gulf of Mexico shrimp trawl (40 foot lead line)

## C. INSTITUTIONS &amp; INDIVIDUALS

SOSC:	Smithsonian Oceanographic Sorting Center U. S. National Museum Washington, D. C.
IOBC:	Indian Ocean Biological Center Ernakulam Cochin, India
GDG:	George D. Grice Woods Hole Oceanographic Institution Woods Hole, Massachusetts
ELP:	E. Lowe Pierce University of Florida Gainesville, Florida
GEN:	Norberto Della Croce Istituto di Zoologia--Universita Via Balbi 5 Genova, Italia

Table 3

Summary of major activities - Cruise 7  
(exclusive of benthic collections)

Station	Date	Position		Hydro Cast	Prim. Prod.	Plankton Tows		NV-70	
		Latitude	Longitude			75M25	IOSN		75M3
356	29 Jul 64	29°11'S	31°37'E	x	x		x		
357	29 Jul 64	29°10'S	31°51'E	x				x	
358	30 Jul 64	29°12'S	32°06'E	x	x	x	x		x
359	31 Jul 64	28°35'S	32°40'E	x	x	x	x		x
360	31 Jul 64	27°38'S	33°24'E	x	x	x	x		x
361	1 Aug 64	26°35'S	35°57'E	x	x	x	x		x
362	3 Aug 64	24°53'S	39°18'E	x	x	x	x		x
363	4 Aug 64	23°46'S	43°07'E	x	x	x	x		x
364	12 Aug 64	23°20'S	43°36'E	x	x			x	
365	12 Aug 64	23°19'S	43°33'E	x	x	x	x		
366	12 Aug 64	23°13'S	43°13'E	x	x	x	x		x
367	13 Aug 64	22°34'S	41°16'E	x	x	x	x		x
368	16 Aug 64	23°04'S	38°35'E	x	x	x	x		x
369	17 Aug 64	23°48'S	36°48'E	x	x	x	x		x
370	17 Aug 64	24°19'S	35°46'E	x	x	x	x		x
371	18 Aug 64	24°42'S	35°23'E	x	x	x	x		x
372	19 Aug 64	24°48'S	34°59'E	x	x				
373	22 Aug 64	26°01'S	33°04'E	x	x			x	
374	23 Aug 64	26°57'S	33°53'E	x	x	x	x		x
375	24 Aug 64	27°58'S	35°16'E	x	x	x	x		x
376	26 Aug 64	29°22'S	37°31'E	x	x		x		x
377	27 Aug 64	30°09'S	38°39'E	x	x		x		x
378	28 Aug 64	30°51'S	40°11'E	x	x		x		x
379	29 Aug 64	32°22'S	42°55'E	x	x		x	x	
380	30 Aug 64	32°58'S	43°37'E	x	x		x		x
381	30 Aug 64	33°13'S	42°53'E	x	x			x	
382	31 Aug 64	34°08'S	41°15'E	x	x		x		x
383	1 Sep 64	34°57'S	38°49'E	x	x		x		x
384	2 Sep 64	35°44'S	36°47'E	x	x		x		x
385	3 Sep 64	34°15'S	36°04'E	x	x		x		x
386	4 Sep 64	32°55'S	35°21'E	x	x		x		x
387	5 Sep 64	31°57'S	34°18'E	x	x		x		x
388	6 Sep 64	30°45'S	32°58'E	x	x		x		x
389	6 Sep 64	30°10'S	32°09'E	x	x		x	x	
390	8 Sep 64	29°45'S	31°42'E	x	x		x		
391	9 Sep 64	29°29'S	31°44'E	x	x				
392	9 Sep 64	29°18'S	31°33'E	x	x			x	

Table 4 - Summary of Benthic Collections - Cruise 7

STA.	DATE	ZONE TIME	POSITION		DEPTH (m)	GEAR & REMARKS
			lat. (°S.)	long. (°E.)		
356A	29-VII-64	1633	29° 11'	31° 37'	15	Campbell Grab
356B	"	1659	29° 11'	31° 37'	15	Rock Dredge
356C	"	1812	29° 10'	31° 40'	33	Campbell Grab
356D	"	1835	29° 10'	31° 40'	33	Trigger Corers
356E	"	1926	29° 12'	31° 42'	40	Campbell Grab
356F	"	1944	29° 12'	31° 42'	40	Trigger Corers
356G	"	2110	29° 10'	31° 51'	42	Campbell Grab
356H	"	2128	29° 10'	31° 51'	42	Trigger Corers
356J	"	2153-2214	29° 10'	31° 51'	42	Menzies Trawl
357A	30-VII-64	0540	29° 11'	32° 02'	69	Campbell Grab
357B	"	0605-0618	29° 11'	32° 02'	69	Rock Dredge
357C	"	0717	29° 11'	32° 04'	126	Campbell Grab
357D	"	0744-0758	29° 11'	32° 04'	104	Rock Dredge
357E	"	0847	29° 10'	32° 05'	168	Campbell Grab
358A	"	1443	29° 19'	32° 00'	366	Campbell Grab
358B	"	1516	29° 20'	31° 59'	421	Trigger Corers
358C	"	1548	29° 21'	31° 58'	366	Menzies Trawl
359A	31-VII-64	0510	28° 40'	32° 39'	1079	Campbell Grab (Scoured bottom, No sample)
359B	"	0710	28° 43'	32° 38'	1170	Agassiz Trawl
359C	"	0900	28° 43'	32° 38'	1207	Rock Dredge
360A	1-VIII-64	0015-0103	27° 39'	33° 23'	1360	Campbell Grab (No sample, Smooth hard bottom)
361A	"	2100	26° 35'	35° 58'	1829	Snapper
361B	2-VIII-64	0020-0142	26° 34'	35° 59'	1829	Campbell Grab
361C	"	0203-0230	26° 33'	36° 00'	1829	Phleger Corers
361D	"	0310-0345	26° 32'	36° 02'	1829	Menzies Trawl
361E	"	1233-1350	25° 50'	37° 21'	2700	Campbell Grab
361F	"	1410-1545	25° 50'	37° 21'	2750	Trigger Corers
361G	"	1540-1620	25° 50'	37° 21'	2750	Menzies Trawl
361H	"	1950-2230	25° 39'	37° 45'	3750	Campbell Grab
361J	"	2315	25° 39'	37° 45'	3800	Phleger Corers

STA .	DATE	ZONE TIME	POSITION		DEPTH (m)	GEAR & REMARKS
			lat. (°S.)	long. (°E.)		
362A	3-VIII-64	1115	24°55'	39°21'	3600	Snapper
362B	"	1755-1845	24°57'	39°24'	3570	Rock Dredge with Fine Screening
362C	"	2025	24°54'	39°26'	3570	Phleger Corers
362D	4-VIII-64	0907-1110	24°18'	41°26'	3950	Campbell Grab
362E	"	1145-1310	24°16'	41°25'	3950	Phleger Corers
363A	5-VIII-64	0052	23°46'	43°08'	3120	Snapper
363B	"	0643	23°45'	43°10'	2980	Campbell Grab
363C	"	0805	23°45'	43°10'	2980	Trigger Corers
363D	"	0912-1050	23°45'	43°11'	1605	Menzies Trawl
363E	"	1248	23°40'	43°21'	1860	Campbell Grab
363F	"	1345	23°40'	43°21'	1860	Trigger Corers
363G	"	1458	23°38'	43°24'	1350	Campbell Grab
363H	"	1543	23°37'	43°24'	1310	Trigger Corers
363J	"	1620-1740	23°36'	43°24'	1280	Menzies Trawl
363K	"	1915-1955	23°43'	43°25'	1190	Agassiz Trawl
363L	6-VIII-64	0730-0800	23°17'	43°30'	841	Campbell Grab
363M	"	0810	23°17'	43°30'	1006	Trigger Corers
363N	"	0855	23°17'	43°31'	1006	Campbell Grab
363P	"	0950-1013	23°17'	43°33'	1225	Agassiz Trawl
363Q	"	1240	23°17'	43°34'	430	Van Veen Grab
363Q'	"	1303	23°17'	43°35'	311	Van Veen Grab
363R	"	1330	23°17'	43°35'	220	Trigger Corers
363S	"	1430	23°18'	43°36'	33	Campbell Grab
363T	"	1445	23°18'	43°36'	35	Trigger Corers
363U	"	1525	23°19'	43°35'	128	Campbell Grab
363V	"	1540	23°19'	43°35'	91	Trigger Corers
363W	"	1555-1608	23°19'	43°36'	82	Agassiz Trawl

STA.	DATE	ZONE TIME	POSITION		DEPTH (m)	GEAR & REMARKS
			lat. (°S.)	long. (°E.)		
364A	12-VIII-64	1115	23° 20'	43° 36'	51	Campbell Grab
364B	"	1125	23° 20'	43° 36'	51	Trigger Corers
364C	"	1215-1225	23° 20'	43° 36'	77	Agassiz Trawl
365A	"	1515	23° 19'	43° 33'	420	Van Veen Grab (Returned open with small samples)
365B	"	1555	23° 19'	43° 33'	420	Campbell Grab (Metal strap bent and caused grab to stay open)
365C	"	1620	23° 19'	43° 33'	439	Trigger Corers
365D	"	1655-1750	23° 20'	43° 32'	695-475	Agassiz Trawl
366A	13-VIII-64	0340	23° 09'	43° 09'	2300	Campbell Grab
366B	"	0441	23° 09'	43° 08'	2300	Trigger Corers
366C	"	0555-0720	23° 09'	43° 07'	2710	Agassiz Trawl
367A	"	2050	22° 36'	41° 18'	3350	Snapper
367B	14-VIII-64	0145	22° 36'	41° 21'	3350	Trigger Corers
367C	"	0320-0350	22° 37'	41° 22'	3250	Menzies Trawl
367D	"	1242	22° 15'	40° 21'	2200	Campbell Grab (No sample, Rock bottom)
367E	"	1405-1410	22° 14'	40° 19'	2200	Rock Dredge
367F	15-VIII-64	0700-0815	22° 12'	40° 38'	2750	Rock Dredge
367G	"	1600	22° 42'	39° 19'	3140	Campbell Grab
367H	"	1715	22° 40'	39° 21'	3140	Trigger Corers
367J	"	1900-1940	22° 38'	39° 24'	3040	Agassiz Trawl (No specimens)
368A	16-VIII-64	0140	23° 03'	38° 35'	2990	Snapper
368B	"	0837	23° 01'	38° 37'	2995	Trigger Corers
368C	"	0945-1030	23° 00'	38° 37'	2995	Menzies Trawl
369A	"	2349	23° 48'	37° 47'	2270	Snapper
369B	17-VIII-64	0501	23° 48'	37° 46'	2270	Trigger Corers
369C	"	0600	23° 48'	37° 45'	2200	Agassiz Trawl
369D	"	1100	24° 04'	36° 16'	1720	Campbell Grab
369E	"	1146	24° 04'	36° 16'	1690	Trigger Corers

STA.	DATE	ZONE TIME	POSITION		DEPTH (m)	GEAR & REMARKS
			lat. (°S.)	long. (°E.)		
369F	17-VIII-64	1250-1400	24° 04'	36° 15'	1610	Agassiz Trawl
369G	"	1550	24° 12'	36° 02'	1205	Campbell Grab
369H	"	1630	24° 12'	36° 01'	1185	Trigger Corers
369J	"	1720-1805	24° 12'	36° 01'	1140	Agassiz Trawl
370A	"	2028	24° 20'	35° 47'	914	Snapper
370B	"	2315	24° 25'	35° 47'	910	Campbell Grab
370C	"	2345	24° 25'	35° 37'	910	Trigger Corers
370D	18-VIII-64	0020-0115	24° 28'	35° 36'	880	Agassiz Trawl
370E	"	0750	24° 39'	35° 29'	380	Campbell Grab
370F	"	0800	24° 39'	35° 29'	358	Trigger Corers
370G	"	0830-0910	24° 40'	35° 28'	347	Agassiz Trawl
371A	"	1130	24° 42'	35° 23'	190	Snapper
371B	"	1348	24° 46'	35° 21'	176	Trigger Corers (Very small samples, core cutters damaged)
371C	"	1403-1440	24° 47'	35° 21'	170	Menzies Trawl (Net split, frame bent)
371D	"	1500-1510	24° 46'	35° 20'	165	Agassiz Trawl (Net ripped)
371E	"	1530-1545	24° 46'	35° 20'	132	Rock Dredge
371F	"	1630-1700	24° 46'	35° 18'	110	Rock Dredge
371G	"	1750-1800	24° 49'	35° 13'	73	Rock Dredge
372A	19-VIII-64	0600	24° 48'	34° 59'	42	Snapper
372B	"	0700-0710	24° 48'	34° 59'	42	Rock Dredge
372C	"	0825-0845	24° 46'	34° 50'	22	Rock Dredge
372D	"	0905-0910	24° 46'	34° 49'	19	Rock Dredge
372E	"	1038	24° 52'	34° 56'	55	Campbell Grab
372F	"	1045	24° 52'	34° 56'	55	Trigger Corers
372G	"	1100-1110	24° 53'	34° 56'	55	Rock Dredge
372H	"	1145	24° 54'	34° 56'	55	Campbell Grab
372J	"	1455	25° 07'	34° 34'	106	Campbell Grab
372K	"	1505	25° 07'	34° 34'	106	Trigger Corers

STA.	DATE	ZONE TIME	POSITION		DEPTH (m)	GEAR & REMARKS
			lat. (°S.)	long. (°E.)		
372L	19-VIII-64	1520-1528	25°07'	34°34'	112	Agassiz Trawl
372M	"	1625-1640	25°03'	34°31'	55	Rock Dredge
372N	"	1648	25°03'	34°31'	55	Trigger Corers
372P	22-VIII-64	1755	25°57'	33°02'	37	Campbell Grab
372Q	"	1815-1835	25°57'	33°02'	42	Dredge
373A	"	2035	26°00'	33°05'	135	Campbell Grab
373B	"	2053-2059	26°00'	33°05'	135	Rock Dredge
373C	"	2105-2130	26°00'	33°05'	175	Rock Dredge
373D	"	2210	26°02'	33°08'	366	Campbell Grab
373E	"	2235-2300	26°02'	33°08'	366	Rock Dredge
373F	"	2325-2345	26°02'	33°08'	366	Menzies Trawl
373G	23-VIII-64	0730	26°58'	33°54'	896	Campbell Grab
373H	"	0800-0845	26°58'	33°54'	896	Agassiz Trawl
373J	"	0920-0945	26°58'	33°53'	880	Menzies Trawl
374A	"	0945-1250	26°55'	33°50'	896	Trigger Corers
374B	"	1530	27°10'	34°09'	1335	Campbell Grab
374C	"	1610	27°09'	34°09'	1335	Trigger Corers
375A	24-VIII-64	0338	27°57'	35°16'	1840	Snapper
375B	"	0805	28°00'	35°16'	1910	Trigger Corers
375C	"	0908-0938	28°01'	35°14'	1910	Agassiz Trawl
375D	"	1135-1215	28°04'	35°12'	1910	Agassiz Trawl (No sample)
375E	25-VIII-64	0805-0845	29°00'	36°42'	3840	Agassiz Trawl (Lost)
375F	"	1130	29°03'	36°43'	3840	Trigger Corers
375G	"	1335-1430	29°06'	36°44'	3890	Rock Dredge with fine screen
376A	"	2242	29°22'	37°31'	5000	Snapper
376B	26-VIII-64	0735-0815	29°26'	37°35'	5000	Rock Dredge (No sample)
376C	"	1014	29°23'	37°30'	5000	Trigger Corers
376D	"	1330-1400	29°20'	37°26'	5000	Menzies Trawl



STA.	DATE	ZONE TIME	POSITION		DEPTH (m)	GEAR & REMARKS
			lat. (°S.)	long. (°E.)		
377A	27-VIII-64	0157	30°08'	38°39'	4940	Snapper
377B	"	1011	30°11'	38°36'	4940	Trigger Corers
377C	"	1200-1230	30°12'	38°35'	4870	Menzies Trawl
378A	28-VIII-64	0113	30°50'	40°11'	4800	Snapper
378B	"	0825	30°50'	40°10'	4820	Trigger Corers
378C	"	1040-1115	30°48'	40°11'	4870	Agassiz Trawl (No sample)
379A	29-VIII-64	1028	32°23'	42°55'	2970	Snapper
379B	"	1800	32°23'	42°56'	2600	Trigger Corers
379C	"	2015-2100	32°26'	42°58'	2410	Agassiz Trawl (Lost)
379D	"	2200-2400	32°27'	43°00'	2400	Rock Dredge
380A	30-VIII-64	0700	32°58'	43°37'	935	Snapper
380B	"	0921	32°58'	43°41'	935	Trigger Corers
380C	"	0945-1015	32°58'	43°41'	950	Menzies Trawl
381A	"	1415	33°13'	43°51'	46	Campbell Grab
381B	"	1435-1445	33°13'	43°51'	38	Rock Dredge
381C	"	1510-1525	33°13'	43°53'	40	Rock Dredge
381D	"	1710-1800	33°13'	43°50'	205	Rock Dredge
381E	"	1825	33°13'	43°48'	321	Campbell Grab
382A	31-VIII-64	1008	34°09'	41°15'	4900	Snapper
382B	"	1600	34°06'	41°15'	4900	Trigger Corers
382C	"	1805-1905	34°06'	41°15'	4900	Menzies Trawl
383A	1-IX-64	1110	34°57'	38°48'	5250	Snapper
383B	"	1830	34°44'	38°49'	5250	Trigger Corers
383C	"	2050-2210	34°45'	38°47'	5250	Menzies Trawl
384A	2-IX-64	1200	35°44'	36°48'	5250	Snapper (Lost)
384B	"	1610	35°47'	36°45'	5350	Trigger Corers
384C	"	1845-1915	35°51'	36°46'	5450	Agassiz Trawl
385A	3-IX-64	1140	34°15'	36°03'	3140	Snapper
385B	"	1750	34°15'	35°59'	3150	Trigger Corers
385C	"	1923-2030	34°17'	35°55'	3150	Agassiz Trawl

STA.	DATE	ZONE TIME	POSITION		DEPTH (m)	GEAR & REMARKS
			lat. (°S.)	long. (°E.)		
386A	4-IX-64	1150	32°55'	35°21'	1360	Snapper (Lost)
386B	"	1625-1645	32°55'	35°21'	1260	Fine Rock Dredge.
386C	"	1725	32°55'	35°19'	1265	Trigger Corers
386D	"	2043	32°38'	35°00'	1200	Trigger Corers
386E	"	2215-2315	32°38'	35°00'	1200	Menzies Trawl
386F	"	2345	32°42'	34°58'	1250	Campbell Grab
387A	5-IX-64	0905	31°57'	34°16'	2770	Snapper
387B	"	1425	31°54'	34°21'	2565	Trigger Corers
387C	"	1545-1625	31°54'	34°21'	2700	Rock Dredge
387D	"	1730	31°53'	34°24'	2750	Trigger Corers
387E	"	2305	31°23'	33°48'	3260	Trigger Corers
388A	6-IX-64	0931	30°44'	32°58'	3070	Snapper
388B	"	1600	30°48'	32°58'	3090	Trigger Corers
388C	"	1730-1800	30°49'	32°58'	3090	Agassiz Trawl
388D	7-IX-64	0655	30°19'	30°18'	1820	Trigger Corers
388E	"	0755-0825	30°19'	30°18'	1865	Agassiz Trawl
389A	"	1042	30°09'	32°09'	1370	Snapper
389B	"	1338	30°10'	32°04'	1355	Trigger Corers
389C	"	1428-1545	30°12'	32°01'	1360	Agassiz Trawl
389D	"	1832	30°10'	31°37'	930	Trigger Corers
389E	"	1905-2005	30°09'	31°37'	930	Agassiz Trawl
389F	8-IX-64	0645	29°57'	31°31'	715	Trigger Corers
389G	"	0730-0830	29°57'	31°31'	700	Agassiz Trawl
390A	"	1245	29°45'	31°40'	445	Trigger Corers
390B	"	1320	29°45'	31°40'	445	Campbell Grab
390C	"	1345-1415	29°45'	31°40'	440	Agassiz Trawl
390D	"	1512	29°42'	31°38'	350	Trigger Corers
390E	"	1530-1610	29°42'	31°38'	350	Agassiz Trawl
390F	"	1822	29°38'	31°36'	200	Trigger Corers
390G	"	1835	29°38'	31°36'	200	Campbell Grab
390H	"	1855-1940	29°38'	31°36'	190	Agassiz Trawl
390J	9-IX-64	0630	29°35'	31°38'	156	Trigger Corers
390K	"	0645	29°35'	31°38'	155	Campbell Grab

STA.	DATE	ZONE TIME	POSITION		DEPTH (m)	GEAR & REMARKS
			lat. (°S.)	long. (°E.)		
390L	9-IX-64	0705-0745	29° 35'	31° 38'	150	Agassiz Trawl
390M	"	0830	29° 34'	31° 39'	115	Trigger Corers
390N	"	0840	29° 34'	31° 39'	115	Campbell Grab
390P	"	0850-0930	29° 34'	31° 39'	118	Agassiz Trawl
390Q	"	1017	29° 53'	31° 42'	138	Trigger Corers
390R	"	1025	29° 35'	31° 42'	138	Campbell Grab
390S	"	1038-1108	29° 35'	31° 42'	138	Agassiz Trawl
390T	"	1130-1200	29° 34'	31° 43'	150	Menzies Trawl
391A	"	1425	29° 29'	31° 45'	86	Trigger Corers
391B	"	1435	29° 29'	31° 45'	86	Campbell Grab
391C	"	1440-1500	29° 29'	31° 45'	86	Agassiz Trawl
391D	"	1545	29° 26'	31° 46'	77	Trigger Corers
391E	"	1600	29° 26'	31° 46'	77	Campbell Grab
391F	"	1610-1620	29° 26'	31° 46'	77	Agassiz Trawl
391G	"	1745	29° 21'	31° 35'	57	Trigger Corers
391H	"	1800	29° 21'	31° 35'	57	Campbell Grab
391J	"	1810-1820	29° 21'	31° 35'	57	Agassiz Trawl
392A	"	1950	29° 18'	31° 33'	47	Trigger Corers
392B	"	2000	29° 18'	31° 33'	47	Campbell Grab
392C	"	2005-2010	29° 18'	31° 33'	46	Agassiz Trawl
392D	"	2100-2110	29° 17'	31° 32'	35	Rock Dredge
392E	"	2120	29° 16'	31° 32'	35	Campbell Grab
392F	10-IX-64	0615	29° 16'	31° 32'	35	Campbell Grab
392G	"	0645	29° 14'	31° 31'	18	Campbell Grab
392H	"	0700-0710	29° 14'	31° 31'	18	Agassiz Trawl
392J	"	0815	29° 19'	31° 26'	38	Campbell Grab
392K	"	0820-0830	29° 19'	31° 26'	38	Agassiz Trawl

