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REPORT OF ECOSYSTEM STUDIES CONDUCTED DURING THE 1988 EASTERN TROPICAL PACIFIC DOLPHIN SURVEY ON THE RESEARCH VESSEL *McARTHUR*

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U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southwest Fisheries Center

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REPORT OF ECOSYSTEM STUDIES CONDUCTED DURING THE 1988 EASTERN TROPICAL PACIFIC DOLPHIN SURVEY ON THE RESEARCH VESSEL *McARTHUR*

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Lisa J. Lierheimer, Paul C. Fiedler, Stephen B. Reilly, Robert L. Pitman, Lisa T. Ballance, and David W. Behringer

INTRODUCTION

The National Marine Fisheries Service (NMFS) has the responsibility of assessing the status of dolphin stocks affected by the tuna purse-seine fishery in the eastern tropical Pacific (ETP). In 1988, the Southwest Fisheries Center (SWFC) conducted the third survey of a six-year program to monitor population trends in ETP dolphin stocks (Jackson and Holt, 1989). Two NOAA research vessels were used, the McArthur and the David Starr Jordan (hereafter referred to as Jordan). The vessels operated concurrently in the ETP from July 28 through December 6, 1988. Approximately the same area and time period are surveyed during each year of the program. As part of this monitoring program, the SWFC is also studying the physical and biological environment inhabited by the dolphins. This ecosystem approach will facilitate the interpretation of dolphin population trends detected by these surveys, and will provide information necessary for understanding the biological basis of ETP dolphin distribution and abundance.

The physical oceanographic research of the program is being carried out jointly with NOAA's Atlantic Oceanographic and Meteorological Laboratory (AOML), as part of their contribution to the long-term Eastern Pacific Ocean Climate Study (EPOCS) and Tropical Ocean Global Atmosphere (TOGA) programs.

This report describes the types of data collected and sampling techniques used, and summarizes data collected (including disposition of the data) for the environmental studies conducted aboard the McArthur. Results from the Jordan are available in a separate report (Lierheimer et al., 1989).

OBJECTIVES

The primary objective of the dolphin habitat monitoring portion of the program is to provide information about the effects of large-scale environmental variation on the estimates of trends in dolphin abundance. These environmental effects are monitored by examining the relationship between dolphin distribution and oceanographic patterns and processes. These phenomena are sampled concurrently with the dolphin sighting survey by measuring regional and local changes in chlorophyll, nutrients, temperature, salinity, and the occurrence of seabirds and other animals. These parameters can fluctuate both seasonally and as result of large scale ocean-atmosphere interactions such as the El Niño Southern Oscillation

(ENSO) phenomena. Studying oceanographic patterns and variability in the ETP concurrently with the fauna may reveal regional or local associations.

The studies of surface and subsurface physical properties which are conducted jointly with AOML also contribute to the objectives of the EPOCS and TOGA programs, which include developing the ability to forecast ENSO occurrences.

STUDY AREA AND ITINERARY

The McArthur departed San Diego, California on 28 July 1988 and returned on 6 December 1988. The cruise was conducted in four legs of approximately 30 days each, with port calls in Hilo, Hawaii; Rodman Naval Station, Panama; and Callao, Peru. The cruise tracks of both vessels were chosen to maximize coverage of the known ranges of the two target species, the spotted dolphin (Stenella attenuata) and the spinner dolphin, (Stenella longirostris) in the ETP (Perrin et al., 1983).

The itinerary for the McArthur was as follows:

Leg 1

Departure	28 July	San Diego, California
Arrival	26 August	Hilo, Hawaii

Leg 2

Departure	31 August	Hilo, Hawaii
Arrival	30 September	Rodman Naval Station, Panama

Leg 3

Departure	4 October	Rodman Naval Station, Panama
Arrival	2 November	Callao, Peru

Leg 4

Departure	7 November	Callao, Peru
Arrival	6 December	San Diego, California

MATERIALS AND METHODS

Oceanography

While the ship was underway, temperature, salinity, and fluorescence of surface water were measured and recorded continuously in digital form and on strip-charts. Sea water was sampled continuously from a bow intake 3 meters below the surface.

Temperature and salinity were measured with an ODEC Model TSG-102 Thermosalinograph[1]. In vivo fluorescence was measured with a Turner Designs fluorometer. These data were recorded on a data acquisition system consisting of an AI08 A/D board (Industrial Computer Source) connected to an IBM PC compatible microcomputer (Holland, 1989). Discrete water samples were collected at regular intervals to verify continuous data.

Conductivity, temperature and depth (CTD) device casts were made approximately two times per night using a Plessey CTD. Each CTD cast lasted approximately 60 minutes. The CTD was lowered to 1000 meters and sensors connected to shipboard computers measured conductivity (salinity), temperature, and pressure (depth).

Eleven Niskin bottles on the CTD rosette collected water from discrete depths (20, 40, 60, 80, 100, 125, 150, 250, 350, 500 and 1000 meters). At each CTD station, surface chlorophyll and nutrient samples were collected from the ship's seawater intake. Samples were collected at each CTD station for chlorophyll and nutrients (nitrate, nitrite, phosphate and silicate) in the following quantities: chlorophyll, 8 275 ml bottles/cast; and nutrient, 11 20 ml bottles/cast. Extracted chlorophyll and phaeophytin were measured with a Turner 111 fluorometer. Nutrient samples were collected and frozen immediately for later analysis. Three 150 ml salinity samples were collected from each cast and analyzed for the purpose of CTD calibration.

Expendable bathythermograph (XBT) drops were made daily at 0000, 0800, 1200, and 1600 hours (local time). A Shipboard Environmental data Acquisition System (SEAS) was utilized. XBT data were transmitted to shore via the GOES (Geostationary Operational Environmental Satellite) every four hours. Position, time, and date for each drop were recorded on NOAA XBT logs and disks.

Seven satellite-tracked drift buoys were deployed at predetermined locations. These buoys transmit signals which are received by NOAA satellites and transferred to the ARGOS service facility in Toulouse, France. The deployments, arranged by Don Hansen of AOML, were for EPOCS and TOGA investigations of surface currents.

Biological Observations

Seabird censuses were conducted using standard 300 m strip-transect methodology and hand-held binoculars. Weather permitting, bird observers stood shifts on the flying bridge throughout the daylight hours when the ship was underway. Species identification, numbers, and behaviors of birds were recorded, as well as associations with marine mammals, fish or flotsam. Flock compositions and occasionally individual identifications were verified using mounted 25X binoculars.

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[1] Reference to trade names does not imply endorsement by NMFS.

Manta tows were conducted each night immediately following the CTD station, using a 505 μm-mesh manta net with a mouth opening of 15 cm X 86 cm. A General Oceanics digital flowmeter was suspended in the center of the net mouth. The net was towed from the starboard hydrographic wire for fifteen minutes. Samples were preserved in formalin, labeled and stored.

Surface organisms were sampled during evening CTD stations to collect information on the occurrence, relative abundance and distribution of flying fishes in the ETP. Two 500-watt lamps were suspended over the side of the ship to attract animals, and a long-handled dip net was used to collect them. Other information collected during these stations included species observed, relative abundance, and pertinent environmental data (e.g., sea surface temperature and salinity, sea state, and moon phase).

As part of a long-term study of the distribution of sea turtles in the ETP, all sightings of marine turtles made incidental to the systematic marine mammal and seabird surveys were recorded during the cruise. Under normal field conditions, specific identification of sea turtles other than leatherbacks (Dermochelys coriacea) is difficult. Therefore, in order to obtain a sample of identified individuals, turtles that passed close by the ship (usually within 50 meters) were photographed with a telephoto lens for future identification.

Fish stomach contents were collected opportunistically for a food habits study. Fish were caught by rod and reel or trolling. The fish were identified, sexed, and measured. Associations with flotsam, other fish, bird flocks or mammals were recorded. Stomach contents were identified and measured. Unidentifiable stomach contents were preserved in alcohol for later identification. Seabirds were also collected opportunistically for gut content analysis.

RESULTS

Jackson and Holt (1989) reported on the dolphin assessment methods and data collected from the 1988 McArthur cruise.

The cruise track for the McArthur is plotted in Figure 1. Table 1 lists the total numbers of environmental and biological samples, by category, collected on the McArthur.

Oceanography

Digital records of continuous surface data from the thermosalinograph and fluorometer are now being analyzed at the SWFC. Plots of continuous environmental data from the 1986-1988

surveys will be published in a separate report[2].

Figure 2 shows the locations of the 183 CTD casts. Analysis of discrete salinity samples for CTD calibration was performed on the McArthur. Uncorrected CTD temperature and salinity data are included in Appendix A.

Digital XBT data were edited by AOML. Figure 3 shows XBT deployment locations. XBT data were sent by the SEAS to the National Ocean Service, NOAA[3].

Discrete chlorophyll samples were analyzed at sea and data were processed at the SWFC in La Jolla. Results are presented in Appendix A. Surface and integrated (0-150 m) chlorophyll concentrations, from both the Jordan and the McArthur, are mapped in Figures 4 and 5.

Frozen nutrient samples were shipped to Monterey Bay Aquarium Research Institute to be analyzed. An addendum containing nutrient data will follow this report.[4]

Table 2 lists the locations and dates of the seven drifting buoy deployments. Figure 6 shows the tracks of these buoys.

Biological Observations

A total of 833 hours during 100 days was spent on effort for the seabird distribution and abundance survey. During this time, 10,925 individuals of 54 species were recorded (Table 1). Abundance of seabirds varied according to the area surveyed. In general, the most abundant group of seabirds recorded during legs I and II was represented by the family Procellariidae; these were comprised primarily of gadfly petrels. The most abundant group recorded during legs III and IV was represented by the family Oceanitidae. Sulids were also abundant during leg III (Table 3). These general trends are represented by the species list in Table 4; the most abundant species were Juan Fernandez Petrels (Pterodroma externa), Red-Footed Boobies (Sula sula), and Galapagos Storm-Petrels (Oceanodroma tethys). Sooty Terns (Sterna fuscata), members of the family Laridae, were the second most abundant species recorded; the majority were observed during leg II.

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[2] Fiedler, P.C., L.J. Lierheimer, R.C. Holland, and S.B. Reilly. 1989. Continuous environmental data and marine mammal sightings in the eastern tropical Pacific, 1986 - 1988. In preparation.

[3] Persons wishing to receive copies of these data should write to: National Ocean Service; SEAS Office; N/OS1; Rm. 103; 6001 Exec. Blvd.; Rockville, MD 20852.

[4] Persons interested in receiving this addendum should contact the SWFC.

Manta tow samples have been sorted and are now being identified at SWFC.[5]

Figure 7 shows the locations of 101 dip net stations occupied during the cruise. Table 5 summarizes data and specimens collected for each of the stations. A total of 102 flying fish, 75 Oxyporhamphus micropterus, 256 miscellaneous fish, and 80 (mostly juvenile) squid were collected. Specimens will be processed at SWFC; the fish will be donated to the Marine Vertebrate Collection of Scripps Institution of Oceanography and the squid will go to Santa Barbara Natural History Museum.

The locations of 66 individual sea turtle sightings are plotted in Figure 8. Sightings included 6 identified olive ridleys (Lepidochelys olivacea), 2 loggerheads (Caretta caretta),and 58 unidentified sea turtles.

A total of 239 fish were caught for stomach content analysis including 178 mahi mahi (Coryphaena hippurus), 55 tuna (4 spp), and 6 wahoo (Acanthocybium solandri). A total of 16 seabirds were collected for gut content analysis. Data will be analyzed at SWFC.

[5] Questions concerning these samples may be addressed to Dr. Geoff Moser at SWFC.

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Table 1. Summary of environmental and biological data collected, McArthur, 28 July - 6 December, 1988

Leg	XBT	CTD	Chlor a	Nutrients	Manta Tows	Flying Fish Collected	Fish Stomachs Sampled	Bird Stomachs Sampled	Turtle Sightings	Bird Sightings	Bird Effort
I	104	39	415	427	12	25	68	0	9	2,524	190 hours Avg. 7.9 hours/day 24 days
II	109	42	441	461	13	30	67	0	20	2,714	168 hours Avg. 7.3 hours/day 23 days
III	107	53	499	582	21	24	63	9	22	4,247	233 hours avg. 8.3 hours/day 28 days
IV	104	49	488	537	23	23	40	7	15	1,440	242 hours avg. 9.7 hours/day 25 days
TOTAL:	424	183	1,843	2,007	69	102	238	16	66	10,925	833 hours avg. 8.3 hours/day 100 days

1. Continuous sea surface fluorometry, temperature and salinity measured during all 4 legs.

Table 2. Deployment locations of seven drift buoys, McArthur, 28 July - 6 December, 1988.

DATE	LATITUDE	LONGITUDE
23 September	0° 0.2 N	93° 1.1 W
17 October	0° 0.9 S	100° 31.2 W
21 October	2° 57.7 S	96° 15.6 W
27 October	2° 48.6 S	85° 29.7 W
28 October	5° 29.9 S	83° 51.8 W
29 October	8° 30.6 S	82° 19.9 W
1 November	11° 54.6 S	81° 56.4 W

Table 3. Families of seabirds and numbers recorded, McArthur, 28 July - 6 December, 1988.

	Leg I	Leg II	Leg III	Leg IV
ALBATROSSES (Diomedeidae)	0	0	0	0
PETRELS AND SHEARWATERS (Procellariidae)	1896	1149	432	245
PTERODROMA PETRELS	1535	708	346	147
OTHER PETRELS (Bulweria, Procellaria, Fulmaris, Daption)	1	6	9	1
SHEARWATERS (Puffinus)	360	435	77	97
STORM-PETRELS (Oceanitidae)	334	185	1856	865
TROPICBIRDS (Phaethontidae)	5	17	29	22
PELICANS (Pelecanidae)	0	0	0	0
BOOBIES (Sulidae)	155	140	1213	32
CORMORANTS (Phalacrocoracidae)	0	0	0	0
FRIGATEBIRDS (Fregatidae)	13	247	145	8
PHALAROPES (Phalaropodidae)	1	35	99	7
JAEGERS (Stercorariidae)	5	21	95	19
GULLS, TERNS AND NODDIES (Laridae)	89	891	288	224
GULLS (Larus)	0	6	19	3
TERNS (Sterna, Chlidonias, Gygis)	89	884	266	221
NODDIES (Anous)	0	1	3	0
ALCIDS (Alcidae)	0	0	0	0

Table 4. Identity and numbers of seabird species recorded, McArthur, 28 July - 6 December, 1988.

Common Name	Scientific Name	Leg I	Leg II	Leg III	Leg IV	Total
Juan Fernandez Petrel	Pterodroma externa	1226	189	4	68	1487
Sooty Tern	Sterna fuscata	87	791	110	219	1207
Red-Footed Booby	Sula sula	31	40	920	2	993
Galapagos Storm-Petrel	Oceanodroma tethys	133	18	564	178	893
Wedge-Tailed Shearwater (Dark Morph)	Puffinus pacificus	285	311	1	36	633
Leach's/Harcourt's Storm-Petrel	Oceanodroma leucorhoa/castro	0	78	254	267	599
Leach's Storm-Petrel (White-Rumped)	Oceanodroma leucorhoa	1	0	203	293	497
Dark-Rumped Petrel	Pterodroma phaeopygia	3	37	325	17	382
Juan Fernandez/White-Necked Petrel	Pterodroma e. externa/e.cervicalis	47	272	6	30	355
Masked Booby	Sula dactylatra	116	91	124	1	332
Black/Markham's Storm-Petrel	Oceanodroma melania/markhami	0	0	181	42	223
Leach's Storm-Petrel	Oceanodroma leucorhoa	120	13	14	0	147
Hornby's Storm-Petrel	Oceanodroma hornbyi	0	0	133	12	145
White-Winged Petrel	Pterodroma leucoptera	67	35	1	17	120
Red Phalarope	Phalaropus fulcarius	1	14	73	6	94
Wedge-Tailed Shearwater (Light Morph)	Puffinus pacificus	49	4	9	20	82
Parasitic Jaeger	Stercorarius parasiticus	1	14	57	1	73
White-Necked Petrel	Pterodroma externa cervicalis	56	17	0	0	73
Tahiti Petrel	Pterodroma rostrata	27	37	0	3	67
Brown Booby	Sula leucogaster	7	1	57	0	65
Audubon's Shearwater	Puffinus lherminieri	0	0	63	0	63
Arctic Tern	Sterna paradisaea	0	9	53	0	62
Wedge-Tailed Shearwater	Puffinus pacificus	6	52	0	0	58
Red-Billed Tropicbird	Phaethon aethereus	2	8	29	17	56
Sooty Shearwater	Puffinus griseus	4	9	0	36	49
White Tern	Gygis alba	2	28	13	2	45
Harcourt's Storm-Petrel	Oceanodroma castro	0	5	36	3	44
New Zealand Shearwater	Puffinus bulleri	4	25	0	1	30
Waved Albatross	Diomedea irrorata	0	10	16	0	26
Great Frigatebird	Fregata minor	0	9	9	8	26
Swallow-Tailed Gull	Larus furcatus	0	6	17	2	25
Markham's Storm-Petrel	Oceanodroma markhami	3	7	7	5	22
Christmas Island Shearwater	Puffinus nativitatus	0	18	2	0	20
Kermadec Petrel	Pterodroma neglecta	6	6	3	1	16
Blue-Footed Booby	Sula nebouxii	0	0	14	1	15
Red-Tailed Tropicbird	Phaethon rubricauda	3	7	0	5	15
Stejneger's/Cook's Petrel	Pterodroma longirostris/cookii	14	0	0	0	14
Tahiti/Phoenix Petrel	Pterodroma rostrata/alba	0	0	0	14	14
Pomarine Jaeger	Stercorarius pomarinus	0	0	4	9	13
Parkinson's Petrel	Procellaria parkinsoni	0	4	7	0	11
Pink-Footed Shearwater	Puffinus creatopus	4	3	1	1	9
Black-Winged Petrel	Pterodroma nigripennis	0	8	0	0	8
Stejneger's Petrel	Pterodroma longirostris	5	3	0	0	8
Cook's Petrel	Pterodroma cookii	3	5	0	0	8
Shy Albatross	Diomedea cauta	0	0	5	0	5
Leach's Storm-Petrel (Dark-Rumped)	Oceanodroma leucorhoa	5	0	0	0	5
Northern Phalarope	Phalaropus lobatus	0	0	3	0	3
Brown Noddy	Anous stolidus	0	0	3	0	3

Table 4. continued.

Common Name	Scientific Name	Leg I	Leg II	Leg III	Leg IV	Total
Bulwer's Petrel	Bulweria bulweri	1	2	0	0	3
Townsend's/Newell's Shearwater	Puffinus auricularis/a. newelli	0	0	0	3	3
White-Bellied Storm-Petrel	Fregetta grallaria	0	1	0	1	2
Black Tern	Chlidonias niger	0	0	2	0	2
Townsend's Shearwater	Puffinus auricularis	2	0	0	0	2
Sabine's Gull	Larus sabini	0	0	2	0	2
Magnificent Frigatebird	Fregata magnificens	0	1	1	0	2
White-Tailed Tropicbird	Phaethon lepturus	0	2	0	0	2
Murphy's Petrel	Pterodroma ultima	1	1	0	0	2
Franklin's Gull	Larus pipixcan	0	0	0	1	1
White-Faced Storm-Petrel	Pelagodroma marina	0	1	0	0	1
Cape (Pintado) Petrel	Daption capense	0	0	0	1	1
Solander's Petrel	Pterodroma solandri	1	0	0	0	1
Black-Browed Albatross	Diomedea melanophris	0	0	1	0	1
Least Tern	Sterna albifrons	0	0	1	0	1
Black-Footed Albatross	Diomedea nigripes	0	0	0	1	1
Kermadec/Herald Petrel	Pterodroma neglecta/heraldica	0	1	0	0	1
*** Total ***		2323	2193	3328	1324	

Table 5. Results of night-light dip-net sampling, McARTHUR, 28 July - 6 December, 1988.

Station[1] Number	Date Y/M/D	Hours of Effort	Location Latitude	Location Longitude	Sea[2] State	Moon[3] Phase	Sky[4] Cond.	SST (C)	SSS (%)	Fish[5] Species	Relative[6] Abundance (Fish)	Number Collected (Fish)	Squid[7] Type	Relative[6] Abundance (Squid)	Number Collected (Squid)
1	88-07-30	1.0	26 03 N	101 03 W	0.0	5	3	22.7	32.80	5	1		2	2	
1	88-07-30	1.0	26 03 N	101 03 W	0.0	5	3	22.7	32.80	100	4				
2	88-08-01	1.0	21 31 N	119 29 W	3.0	5	3	24.2	33.30						

- VESSEL: 01 - David Starr Jordan; 02 - McArthur

- COLLECTOR: 01 - Pitman; 02 - LeDuc; 03 - Rittmaster

1 - Records without Station numbers reflect opportunistic, or non-standard specimen collections.

2 - Beaufort Scale

3 - 1 = quarter moon; 2 = half moon; 3 = 3/quarter moon; 4 = full moon; 5 = no moon; 6 = new moon.

4 - 1 = clear; 2 = partly cloudy; 3 = overcast; 4 = rain; 5 = other or unknown.

5 - 005 = Unidentified flying fish
010 = Oxyporhamphus micropterus
015 = Fodiator spp.
020 = Exocetus spp.
030 = Unidentified 4-wing flying fish
060 = Elassichthys
080 = Hemiramphidae (halfbeaks)
090 = Belonidae (needlefish)
100 = Myctophidae (lanternfish)
125 = Vinciguerria spp.
200 = Scombridae (tunas)
300 = Gempylidae (snake mackerel)
400 = Coryphaenidae (dolphinfish)
500 = Other
700 = Octopoda (pelagic octopus)
900 = Sea Snake

6 - 1 = "a couple" (1-3)
2 = "a few" (4-8); uncommon
3 = "several" (9-15); fairly common
4 = "common" (16-50)
5 = "abundant" (51-150)
6 = "superabundant" (150+)
7 = 1000's
8 = "present"
9 = "possibly present"

7 - 1 = Large (mantle length > 8 inches)
2 = Medium (3 inches ≤ mantle length ≤ 8 inches)
3 = Small (mantle length < 3 inches)

Table 5. continued.

Station[1] Number	Date Y/M/D	Hours of Effort	Location Latitude	Location Longitude	Sea[2] State	Moon[3] Phase	Sky[4] Cond.	SST (C)	SSS (%)	Fish[5] Species	Relative[6] Abundance (Fish)	Number Collected (Fish)	Squid[7] Type	Relative[6] Abundance (Squid)	Number Collected (Squid)
3	88-08-02	1.0	15 50 N	119 14 W	4.0	5	2	26.6	33.10	100	4		3	1	1
4	88-08-03	1.0	13 48 N	117 53 W	2.0	5	3	NA	NA	5	2		2	2	
4	88-08-03	1.0	13 48 N	117 53 W	2.0	5	3	NA	NA	500	1				
5	88-08-04	1.0	11 39 N	115 59 W	2.0	5	4	27.8	31.70	5	3	3	1	2	
5	88-08-04	1.0	11 39 N	115 59 W	2.0	5	4	27.8	31.70				2	3	
	88-08-05		10 33 N	113 37 W						20		1			
	88-08-07		7 24 N	110 27 W						20		1			
6	88-08-07	1.0	4 59 N	108 52 W	3.0	NA	2	26.5	32.60	5	2	2	1	1	
6	88-08-07	1.0	4 59 N	108 52 W	3.0	NA	2	26.5	32.60	100	5	1	2	4	
7	88-08-08	1.0	5 05 N	110 39 W	2.0	NA	2	26.3	32.50	5	3	2	2	3	
7	88-08-08	1.0	5 05 N	110 39 W	2.0	NA	2	26.3	32.50	100	1				
8	88-08-09	1.0	6 02 N	113 24 W	2.0	5	4	27.0	32.30	5	3	1	2	4	
8	88-08-09	1.0	6 02 N	113 24 W	2.0	5	4	27.0	32.30	100	5				
9	88-08-10	1.0	7 08 N	115 59 W	5.0	5	1	26.3	32.60	5	4	7	1	2	
9	88-08-10	1.0	7 08 N	115 59 W	5.0	5	1	26.3	32.60	500	1		2	5	
	88-08-11		7 09 N	116 14 W						5		3			
10	88-08-11	1.0	8 06 N	118 45 W	4.0	5	2	26.9	32.74	5	1		2	4	
10	88-08-11	1.0	8 06 N	118 45 W	4.0	5	2	26.9	32.74	100	4				
11	88-08-12	1.0	9 37 N	121 13 W	5.0	5	3	26.7	31.96	5	4	1	2	3	
11	88-08-12	1.0	9 37 N	121 13 W	5.0	5	3	26.7	31.96	100	3				
12	88-08-13	1.0	10 43 N	123 42 W	5.0	5	4	27.3	32.15	5	4	3	2	4	
12	88-08-13	1.0	10 43 N	123 42 W	5.0	5	4	27.3	32.15	100	4				
12	88-08-13	1.0	10 43 N	123 42 W	5.0	5	4	27.3	32.15	300	1				
12	88-08-13	1.0	10 43 N	123 42 W	5.0	5	4	27.3	32.15	400	1				
12	88-08-13	1.0	10 43 N	123 42 W	5.0	5	4	27.3	32.15	500	1				
13	88-08-14	1.0	11 59 N	125 43 W	4.0	5	2	27.4	32.30	5	1		2	4	
13	88-08-14	1.0	11 59 N	125 43 W	4.0	5	2	27.4	32.30	100	4				
14	88-08-15	1.0	13 30 N	128 05 W	3.0	5	2	28.1	32.68	5	1		2	4	
14	88-08-15	1.0	13 30 N	128 05 W	3.0	5	2	28.1	32.68	100	3				
14	88-08-15	1.0	13 30 N	128 05 W	3.0	5	2	28.1	32.68	300	1				
14	88-08-15	1.0	13 30 N	128 05 W	3.0	5	2	28.1	32.68	500	1				
15	88-08-16	1.0	13 18 N	131 00 W	2.0	5	1	28.4	32.51	100	1				
15	88-08-16	1.0	13 18 N	131 00 W	2.0	5	1	28.4	32.51	500	1	1			
16	88-08-17	1.0	10 38 N	147 44 W	1.0	5	3	27.6	32.41	100	2		2	4	
17	88-08-18	1.0	10 13 N	135 20 W	3.0	5	3	27.1	31.99	5	2	1	2	2	
17	88-08-18	1.0	10 13 N	135 20 W	3.0	5	3	27.1	31.99	100	2				
18	88-08-19	1.0	9 14 N	137 17 W	5.0	5	3	27.3	32.22	100	1		2	1	
19	88-08-21	1.0	12 02 N	142 50 W	2.0	NA	2	27.6	32.06	100	2		2	4	
20	88-08-26	1.0	19 46 N	154 50 W	2.0	NA	2	NA	NA	5	1		1	2	
20	88-08-26	1.0	19 46 N	154 50 W	2.0	NA	2	NA	NA	500	2				
21	88-09-03	1.0	12 34 N	148 47 W	3.0	5	2	27.5	33.07	100	2		2	3	
21	88-09-03	1.0	12 34 N	148 47 W	3.0	5	2	27.5	33.07	500	5				
22	88-09-04	1.0	8 35 N	145 36 W	2.0	5	2	28.1	33.60	20	1	1	3	1	1
22	88-09-04	1.0	8 35 N	145 36 W	2.0	5	2	28.1	33.60	100	3	1	2	4	
22	88-09-04	1.0	8 35 N	145 36 W	2.0	5	2	28.1	33.60	500	1	1			
23	88-09-05	1.0	6 44 N	142 54 W	3.0	5	2	27.2	34.75	20	2	1	3	1	
23	88-09-05	1.0	6 44 N	142 54 W	3.0	5	2	27.2	34.75	100	4		2	4	

Table 5. continued.

Station[1] Number	Date Y/M/D	Hours of Effort	Location Latitude	Location Longitude	Sea[2] State	Moon[3] Phase	Sky[4] Cond.	SST (C)	SSS (%)	Fish[5] Species	Relative[6] Abundance (Fish)	Number Collected (Fish)	Squid[7] Type	Relative[6] Abundance (Squid)	Number Collected (Squid)
23	88-09-05	1.0	6 44 N	142 54 W	3.0	5	2	27.2	34.75	300	1				
	88-09-06		6 30 N	142 28 W						5		1			
24	88-09-06	1.0	4 59 N	139 42 W	4.0	5	4	26.3	34.79	100	5		2	5	
24	88-09-06	1.0	4 59 N	139 42 W	4.0	5	4	26.3	34.79	300	1		3	4	1
24	88-09-06	1.0	4 59 N	139 42 W	4.0	5	4	26.3	34.79	400	1	1			
	88-09-07		4 50 N	139 11 W						5		2			
25	88-09-08	.8	5 12 N	135 09 W	6.0	5	2	25.2	34.60	20	1		2	3	
25	88-09-08	.8	5 12 N	135 09 W	6.0	5	2	25.2	34.60	100	3				
25	88-09-08	.8	5 12 N	135 09 W	6.0	5	2	25.2	34.60	300	1				
26	88-09-08	1.0	5 07 N	132 57 W	4.0	5	2	26.6	34.65	100	4		2	4	
26	88-09-08	1.0	5 07 N	132 57 W	4.0	5	2	26.6	34.65	300	1				
27	88-09-09	1.0	6 46 N	130 01 W	1.0	5	1	26.5	34.64	100	1		2	2	
28	88-09-10	1.0	6 40 N	127 11 W	2.0	5	2	27.6	34.12	10	1	1	2	3	
28	88-09-10	1.0	6 40 N	127 11 W	2.0	5	2	27.6	34.12	20	2	3			
28	88-09-10	1.0	6 40 N	127 11 W	2.0	5	2	27.6	34.12	100	4				
28	88-09-10	1.0	6 40 N	127 11 W	2.0	5	2	27.6	34.12	400	2	2			
29	88-09-11	1.0	4 24 N	124 33 W	6.0	5	2	26.8	34.49	10	1		2	2	
29	88-09-11	1.0	4 24 N	124 33 W	6.0	5	2	26.8	34.49	20	3	3	1	1	
29	88-09-11	1.0	4 24 N	124 33 W	6.0	5	2	26.8	34.49	100	4				
30	88-09-12	1.0	2 44 N	122 04 W	3.0	5	2	23.4	34.55	20	2		2	2	
31	88-09-13	1.0	3 47 N	119 48 W	5.0	5	2	23.6	34.63	20	1		2	1	
31	88-09-13	1.0	3 47 N	119 48 W	5.0	5	2	23.6	34.63	100	2				
	88-09-14		4 07 N	119 40 W						20		1			
32	88-09-14	1.0	4 24 N	116 55 W	5.0	5	2	25.6	34.06	10	1		1	4	
32	88-09-14	1.0	4 24 N	116 55 W	5.0	5	2	25.6	34.06	20	2		2	3	
32	88-09-14	1.0	4 24 N	116 55 W	5.0	5	2	25.6	34.06	100	5				
32	88-09-14	1.0	4 24 N	116 55 W	5.0	5	2	25.6	34.06	300	1				
32	88-09-14	1.0	4 24 N	116 55 W	5.0	5	2	25.6	34.06	400	1				
33	88-09-15	1.0	4 40 N	114 08 W	4.0	5	2	26.1	33.82	20	2	1	2	1	
33	88-09-15	1.0	4 40 N	114 08 W	4.0	5	2	26.1	33.82	100	4				
33	88-09-15	1.0	4 40 N	114 08 W	4.0	5	2	26.1	33.82	300	1				
34	88-09-16	1.0	4 56 N	110 52 W	6.0	5	3	26.3	33.60	10	1		2	2	
34	88-09-16	1.0	4 56 N	110 52 W	6.0	5	3	26.3	33.60	20	3	4	3	1	1
34	88-09-16	1.0	4 56 N	110 52 W	6.0	5	3	26.3	33.60	100	4				
34	88-09-16	1.0	4 56 N	110 52 W	6.0	5	3	26.3	33.60	300	1				
34	88-09-16	1.0	4 56 N	110 52 W	6.0	5	3	26.3	33.60	500	1				
35	88-09-17	1.0	5 03 N	110 01 W	5.0	5	4	26.0	33.70	10	1		2	4	
35	88-09-17	1.0	5 03 N	110 01 W	5.0	5	4	26.0	33.70	20	3	1			
35	88-09-17	1.0	5 03 N	110 01 W	5.0	5	4	26.0	33.70	100	2				
	88-09-17		4 53 N	110 26 W						30		2			
36	88-09-17	1.0	4 40 N	108 22 W	5.0	5	3	26.8	33.12	20	2	3			
36	88-09-17	1.0	4 40 N	108 22 W	5.0	5	3	26.8	33.12	100	4				
36	88-09-17	1.0	4 40 N	108 22 W	5.0	5	3	26.8	33.12	400	2				
	88-09-18		4 31 N	107 48 W						5		1			
37	88-09-18	1.0	3 58 N	104 58 W	5.0	5	2	25.4	33.70	10	1	1	1	4	
37	88-09-18	1.0	3 58 N	104 58 W	5.0	5	2	25.4	33.70	20	1		2	4	
37	88-09-18	1.0	3 58 N	104 58 W	5.0	5	2	25.4	33.70	100	5				

Table 5. continued.

Station Number[1]	Date Y/M/D	Hours of Effort	Location Latitude	Location Longitude	Sea State[2]	Moon Phase[3]	Sky Cond.[4]	SST (C)	SSS (%)	Fish Species[5]	Relative Abundance (Fish)[6]	Number Collected (Fish)	Squid Type[7]	Relative Abundance (Squid)[6]	Number Collected (Squid)
38	88-09-19	1.0	3 36 N	101 42 W	4.0	5	4	25.9	33.85	20	1	1	2	4	
38	88-09-19	1.0	3 36 N	101 42 W	4.0	5	4	25.9	33.85	100	4				
	88-09-20		3 34 N	100 22 W						5		1			
39	88-09-20	1.0	3 33 N	98 09 W	5.0	5	2	25.7	33.77	20	3	4	2	4	
39	88-09-20	1.0	3 33 N	98 09 W	5.0	5	2	25.7	33.77	100	5				
40	88-09-21	1.0	3 14 N	95 22 W	4.0	5	1	25.6	33.95	20	1		2	1	
40	88-09-21	1.0	3 14 N	95 22 W	4.0	5	1	25.6	33.95	100	1				
41	88-09-23	1.0	0 53 S	92 23 W	4.0	5	2	17.2	34.97	100	4				
42	88-09-26	1.0	0 15 S	87 04 W	4.0	5	4	20.0	34.38	100	5		2	1	
42	88-09-26	1.0	0 15 S	87 04 W	4.0	5	4	20.0	34.38	300	1				
43	88-09-27	1.0	1 00 N	83 38 W	3.0	5	4	23.9	34.11	20	4		2	4	
43	88-09-27	1.0	1 00 N	83 38 W	3.0	5	4	23.9	34.11	100	5		3	1	1
43	88-09-27	1.0	1 00 N	83 38 W	3.0	5	4	23.9	34.11	500	1				
44	88-09-28	1.0	4 06 N	81 35 W	4.0	5	4	NA	NA	100	4		2	5	
44	88-09-28	1.0	4 06 N	81 35 W	4.0	5	4	NA	NA	300	1				
44	88-09-28	1.0	4 06 N	81 35 W	4.0	5	4	NA	NA	500	1				
45	88-10-05	1.0	4 53 N	80 14 W	4.0	5	4	26.8	NA	10	5	33	1	5	
45	88-10-05	1.0	4 53 N	80 14 W	4.0	5	4	26.8	NA	20	1		2	2	1
45	88-10-05	1.0	4 53 N	80 14 W	4.0	5	4	26.8	NA	100	5	6	3	4	15
45	88-10-05	1.0	4 53 N	80 14 W	4.0	5	4	26.8	NA	200	3				
45	88-10-05	1.0	4 53 N	80 14 W	4.0	5	4	26.8	NA	300	1				
45	88-10-05	1.0	4 53 N	80 14 W	4.0	5	4	26.8	NA	400	2	1			
45	88-10-05	1.0	4 53 N	80 14 W	4.0	5	4	26.8	NA	500	1	2			
46	88-10-06	1.0	2 04 N	80 46 W	4.0	5	3	26.0	33.72	10	5	12	1	3	
46	88-10-06	1.0	2 04 N	80 46 W	4.0	5	3	26.0	33.72	20	3	4	2	3	1
46	88-10-06	1.0	2 04 N	80 46 W	4.0	5	3	26.0	33.72	30	1	1	3	1	
46	88-10-06	1.0	2 04 N	80 46 W	4.0	5	3	26.0	33.72	100	4	4			
46	88-10-06	1.0	2 04 N	80 46 W	4.0	5	3	26.0	33.72	300	1				
46	88-10-06	1.0	2 04 N	80 46 W	4.0	5	3	26.0	33.72	400	1				
47	88-10-07	1.0	3 03 N	81 58 W	4.0	5	2	26.3	33.70	10	2	3	1	5	
47	88-10-07	1.0	3 03 N	81 58 W	4.0	5	2	26.3	33.70	20	2	1	2	3	1
47	88-10-07	1.0	3 03 N	81 58 W	4.0	5	2	26.3	33.70	100	5	8	3	4	15
47	88-10-07	1.0	3 03 N	81 58 W	4.0	5	2	26.3	33.70	300	1	1			
47	88-10-07	1.0	3 03 N	81 58 W	4.0	5	2	26.3	33.70	400	1	1			
48	88-10-08	1.0	4 57 N	83 38 W	4.0	5	2	26.5	33.48	10	2		1	4	
48	88-10-08	1.0	4 57 N	83 38 W	4.0	5	2	26.5	33.48	20	2	1	2	1	
48	88-10-08	1.0	4 57 N	83 38 W	4.0	5	2	26.5	33.48	30	1		3	1	
48	88-10-08	1.0	4 57 N	83 38 W	4.0	5	2	26.5	33.48	100	4	9			
48	88-10-08	1.0	4 57 N	83 38 W	4.0	5	2	26.5	33.48	300	1				
48	88-10-08	1.0	4 57 N	83 38 W	4.0	5	2	26.5	33.48	400	1	1			
49	88-10-09	1.0	4 38 N	85 40 W	4.0	5	3	26.4	33.56	10	2	3	1	3	1
49	88-10-09	1.0	4 38 N	85 40 W	4.0	5	3	26.4	33.56	20	1	1	2	2	
49	88-10-09	1.0	4 38 N	85 40 W	4.0	5	3	26.4	33.56	30	1		3	1	1
49	88-10-09	1.0	4 38 N	85 40 W	4.0	5	3	26.4	33.56	100	4	3			
49	88-10-09	1.0	4 38 N	85 40 W	4.0	5	3	26.4	33.56	300	1				
50	88-10-10	1.0	6 34 N	86 33 W	5.0	5	4	26.4	33.20	10	3	3	1	4	
50	88-10-10	1.0	6 34 N	86 33 W	5.0	5	4	26.4	33.20	20	1	1	2	1	

Table 5. continued.

Station[1] Number	Date Y/M/D	Hours of Effort	Location Latitude	Location Longitude	Sea[2] State	Moon[3] Phase	Sky[4] Cond.	SST (C)	SSS (%)	Fish[5] Species	Relative[6] Abundance (Fish)	Number Collected (Fish)	Squid[7] Type	Relative[6] Abundance (Squid)	Number Collected (Squid)
50	88-10-10	1.0	6 34 N	86 33 W	5.0	5	4	26.4	33.20	30	2	1	3	1	1
50	88-10-10	1.0	6 34 N	86 33 W	5.0	5	4	26.4	33.20	100	3				
50	88-10-10	1.0	6 34 N	86 33 W	5.0	5	4	26.4	33.20	300	1				
50	88-10-10	1.0	6 34 N	86 33 W	5.0	5	4	26.4	33.20	400	1				
51	88-10-11	1.0	4 59 N	87 30 W	6.0	5	4	26.6	33.38	10	3	5	1	2	
51	88-10-11	1.0	4 59 N	87 30 W	6.0	5	4	26.6	33.38	20	1	1	3	1	2
51	88-10-11	1.0	4 59 N	87 30 W	6.0	5	4	26.6	33.38	30	1	2	3	1	2
51	88-10-11	1.0	4 59 N	87 30 W	6.0	5	4	26.6	33.38	100	3	3			
	88-10-12		4 34 N	87 48 W						20		1			
52	88-10-12	1.0	2 38 N	89 36 W	5.0	5	3	25.7	33.75	100	6	8	1	2	
52	88-10-12	1.0	2 38 N	89 36 W	5.0	5	3	25.7	33.75	300	2		2	1	
52	88-10-12	1.0	2 38 N	89 36 W	5.0	5	3	25.7	33.75	500	1	1	3	1	1
53	88-10-13	1.0	1 58 N	90 47 W	2.0	5	3	25.1	33.89	20	1	1	2	2	
53	88-10-13	1.0	1 58 N	90 47 W	2.0	5	3	25.1	33.89	30	1	1	3	1	1
53	88-10-13	1.0	1 58 N	90 47 W	2.0	5	3	25.1	33.89	100	2				
53	88-10-13	1.0	1 58 N	90 47 W	2.0	5	3	25.1	33.89	300	1				
53	88-10-13	1.0	1 58 N	90 47 W	2.0	5	3	25.1	33.89	400	1				
53	88-10-13	1.0	1 58 N	90 47 W	2.0	5	3	25.1	33.89	500	1				
54	88-10-13	1.0	1 12 N	92 39 W	2.0	5	3	26.4	34.17	100	5	8	1	5	
55	88-10-14	1.0	3 41 N	94 20 W	4.0	1	2	25.8	33.79	10	1		1	4	
55	88-10-14	1.0	3 41 N	94 20 W	4.0	1	2	25.8	33.79	20	1	1			
55	88-10-14	1.0	3 41 N	94 20 W	4.0	1	2	25.8	33.79	30	1	1			
55	88-10-14	1.0	3 41 N	94 20 W	4.0	1	2	25.8	33.79	100	5	4			
55	88-10-14	1.0	3 41 N	94 20 W	4.0	1	2	25.8	33.79	500	1				
56	88-10-15	1.0	2 57 N	96 32 W	4.0	5	3	25.3	33.75	20	2	2	1	4	
56	88-10-15	1.0	2 57 N	96 32 W	4.0	5	3	25.3	33.75	30	1		2	1	
56	88-10-15	1.0	2 57 N	96 32 W	4.0	5	3	25.3	33.75	100	4	5	3	1	
56	88-10-15	1.0	2 57 N	96 32 W	4.0	5	3	25.3	33.75	500	1				
57	88-10-16	.8	2 18 N	97 24 W	4.0	5	3	24.5	33.95	10	3	3	1	2	
57	88-10-16	.8	2 18 N	97 24 W	4.0	5	3	24.5	33.95	20	1	1	2	1	
57	88-10-16	.8	2 18 N	97 24 W	4.0	5	3	24.5	33.95	300	1				
57	88-10-16	.8	2 18 N	97 24 W	4.0	5	3	24.5	33.95	400	1				
58	88-10-16	1.0	0 49 N	99 17 W	4.0	2	2	22.6	34.36	100	4		1	5	
58	88-10-16	1.0	0 49 N	99 17 W	4.0	2	2	22.6	34.36				2	2	
58	88-10-16	1.0	0 49 N	99 17 W	4.0	2	2	22.6	34.36				3	1	1
59	88-10-17	1.0	0 47 S	101 45 W	3.0	2	2	19.9	34.82	100	4	6	1	2	
59	88-10-17	1.0	0 47 S	101 45 W	3.0	2	2	19.9	34.82				2	4	
60	88-10-18	1.0	2 52 S	103 26 W	2.0	2	2	20.6	34.77	100	4	5	1	2	
60	88-10-18	1.0	2 52 S	103 26 W	2.0	2	2	20.6	34.77				2	5	
61	88-10-19	1.0	2 55 S	100 34 W	3.0	2	2	21.1	34.91	100	3		1	3	
61	88-10-19	1.0	2 55 S	100 34 W	3.0	2	2	21.1	34.91				2	2	
61	88-10-19	1.0	2 55 S	100 34 W	3.0	2	2	21.1	34.91				3	1	1
62	88-10-20	1.0	2 44 S	97 54 W	2.0	3	2	20.7	34.84	100	3		1	5	1
62	88-10-20	1.0	2 44 S	97 54 W	2.0	3	2	20.7	34.84	300	1		2	3	
62	88-10-20	1.0	2 44 S	97 54 W	2.0	3	2	20.7	34.84				3	2	3
63	88-10-21	1.0	3 31 S	96 14 W	3.0	3	1	21.4	35.04	20	1	1	1	2	
63	88-10-21	1.0	3 31 S	96 14 W	3.0	3	1	21.4	35.04	30	1		3	1	2

Table 5. continued.

Station[1] Number	Date Y/M/D	Hours of Effort	Location Latitude	Location Longitude	Sea[2] State	Moon[3] Phase	Sky[4] Cond.	SST (C)	SSS (%)	Fish[5] Species	Relative[6] Abundance (Fish)	Number Collected (Fish)	Squid[7] Type	Relative[6] Abundance (Squid)	Number Collected (Squid)
63	88-10-21	1.0	3 31 S	96 14 W	3.0	3	1	21.4	35.04	100	4				
64	88-10-22	1.0	6 15 S	95 28 W	4.0	3	2	21.3	34.92	20	1		1	4	
64	88-10-22	1.0	6 15 S	95 28 W	4.0	3	2	21.3	34.92	100	4	4	2	1	
65	88-10-23	1.0	8 24 S	93 28 W	4.0	4	2	21.4	35.35	20	1	1	1	5	2
65	88-10-23	1.0	8 24 S	93 28 W	4.0	4	2	21.4	35.35	60	2	3	2	2	
65	88-10-23	1.0	8 24 S	93 28 W	4.0	4	2	21.4	35.35	100	4	1			
65	88-10-23	1.0	8 24 S	93 28 W	4.0	4	2	21.4	35.35	500	1	1			
66	88-10-24	1.0	7 02 S	91 32 W	4.0	4	2	21.0	35.02	20	1	1	1	3	2
66	88-10-24	1.0	7 02 S	91 32 W	4.0	4	2	21.0	35.02	30	1				
66	88-10-24	1.0	7 02 S	91 32 W	4.0	4	2	21.0	35.02	60	1				
66	88-10-24	1.0	7 02 S	91 32 W	4.0	4	2	21.0	35.02	100	3				
67	88-10-25	1.0	4 40 S	89 06 W	3.0	4	2	19.6	34.99	100	4	6	1	4	
68	88-10-26	1.0	2 50 S	86 42 W	2.0	4	2	19.7	34.81	100	3	4	1	4	
68	88-10-26	1.0	2 50 S	86 42 W	2.0	4	2	19.7	34.81				2	1	
68	88-10-26	1.0	2 50 S	86 42 W	2.0	4	2	19.7	34.81				3	1	1
69	88-10-27	1.0	4 10 S	84 39 W	2.0	5	1	18.6	34.91	60	1	1	1	5	2
69	88-10-27	1.0	4 10 S	84 39 W	2.0	5	1	18.6	34.91	100	1	1	2	1	
69	88-10-27	1.0	4 10 S	84 39 W	2.0	5	1	18.6	34.91	500	1	1			
69	88-10-27	1.0	4 10 S	84 39 W	2.0	5	1	18.6	34.91	500	1				
70	88-10-28	1.0	6 46 S	83 06 W	3.0	5	3	19.0	35.24	500	4		1	3	
70	88-10-28	1.0	6 46 S	83 06 W	3.0	5	3	19.0	35.24	500	1				
71	88-10-29	1.0	9 14 S	83 29 W	4.0	5	3	19.4	35.23	30	1		1	8	1
71	88-10-29	1.0	9 14 S	83 29 W	4.0	5	3	19.4	35.23	100	2	1			
71	88-10-29	1.0	9 14 S	83 29 W	4.0	5	3	19.4	35.23	500	4	2			
72	88-10-30	1.0	10 57 S	84 39 W	5.0	5	3	19.0	35.15	60	4		1	5	
72	88-10-30	1.0	10 57 S	84 39 W	5.0	5	3	19.0	35.15	100	3				
72	88-10-30	1.0	10 57 S	84 39 W	5.0	5	3	19.0	35.15	400	1				
73	88-10-31	1.0	11 55 S	81 55 W	5.0	5	3	18.7	35.28	30	1		1	4	2
73	88-10-31	1.0	11 55 S	81 55 W	5.0	5	3	18.7	35.28	100	3	2	2	1	
73	88-10-31	1.0	11 55 S	81 55 W	5.0	5	3	18.7	35.28	400	1				
74	88-11-01	1.0	12 06 S	78 45 W	4.0	5	3	17.7	35.07	30	1				
74	88-11-01	1.0	12 06 S	78 45 W	4.0	5	3	17.7	35.07	500	4	4	1	2	
75	88-11-08	1.0	11 04 S	81 14 W	4.0	5	3	19.0	35.22	100	4	7	1	4	
75	88-11-08	1.0	11 04 S	81 14 W	4.0	5	3	19.0	35.22				2	1	
75	88-11-08	1.0	11 04 S	81 14 W	4.0	5	3	19.0	35.22				3	1	
76	88-11-09	1.0	10 16 S	84 16 W	4.0	5	3	19.8	35.22	60	2	2	3	1	
76	88-11-09	1.0	10 16 S	84 16 W	4.0	5	3	19.8	35.22	100	4	3	1	4	
76	88-11-09	1.0	10 16 S	84 16 W	4.0	5	3	19.8	35.22	400	1				
77	88-11-10	1.0	9 08 S	87 10 W	3.0	5	1	21.0	35.33	20	1	1	1	5	
77	88-11-10	1.0	9 08 S	87 10 W	3.0	5	1	21.0	35.33	60	2	4			
77	88-11-10	1.0	9 08 S	87 10 W	3.0	5	1	21.0	35.33	100	6	7			
77	88-11-10	1.0	9 08 S	87 10 W	3.0	5	1	21.0	35.33	400	3				
78	88-11-11	1.0	8 02 S	90 09 W	3.0	1	2	21.3	35.18	60	1	1	1	3	1
78	88-11-11	1.0	8 02 S	90 09 W	3.0	1	2	21.3	35.18	100	4	10			
78	88-11-11	1.0	8 02 S	90 09 W	3.0	1	2	21.3	35.18	300	1				
79	88-11-12	1.0	7 17 S	93 18 W	4.0	1	1	21.9	35.11	30	1	1	1	5	
79	88-11-12	1.0	7 17 S	93 18 W	4.0	1	1	21.9	35.11	60	2	2			

Table 5. continued.

Station[1] Number	Date Y/M/D	Hours of Effort	Location Latitude	Location Longitude	Sea[2] State	Moon[3] Phase	Sky[4] Cond.	SST (C)	SSS (%)	Fish[5] Species	Relative[6] Abundance (Fish)	Number Collected (Fish)	Squid[7] Type	Relative[6] Abundance (Squid)	Number Collected (Squid)
79	88-11-12	1.0	7 17 S	93 18 W	4.0	1	1	21.9	35.11	100	5	8			
79	88-11-12	1.0	7 17 S	93 18 W	4.0	1	1	21.9	35.11	125	1	1			
80	88-11-13	1.0	6 20 S	96 09 W	5.0	5	3	22.4	34.97	20	2	2	1	5	
80	88-11-13	1.0	6 20 S	96 09 W	5.0	5	3	22.4	34.97	30	1				
80	88-11-13	1.0	6 20 S	96 09 W	5.0	5	3	22.4	34.97	60	3	1			
80	88-11-13	1.0	6 20 S	96 09 W	5.0	5	3	22.4	34.97	100	5	6			
	88-11-14		6 18 S	96 28 W						30		2			
81	88-11-14	1.0	5 50 S	99 22 W	4.0	2	2	22.3	35.06	20	1	1	1	4	
81	88-11-14	1.0	5 50 S	99 22 W	4.0	2	2	22.3	35.06	100	4	9	3	1	
	88-11-15		5 48 S	99 40 W						30		1			
82	88-11-15	1.0	5 23 S	102 42 W	5.0	5	3	23.1	35.20	30	1	1	1	3	
82	88-11-15	1.0	5 23 S	102 42 W	5.0	5	3	23.1	35.20	60	1	1	2	5	2
82	88-11-15	1.0	5 23 S	102 42 W	5.0	5	3	23.1	35.20	100	5	7			
	88-11-16		5 22 S	103 05 W						20		1			
83	88-11-16	1.0	5 06 S	106 02 W	5.0	2	2	22.8	34.95	20	1	1	1	4	1
83	88-11-16	1.0	5 06 S	106 02 W	5.0	2	2	22.8	34.95	30	2		2	4	2
83	88-11-16	1.0	5 06 S	106 02 W	5.0	2	2	22.8	34.95	100	4				
84	88-11-17	1.0	5 04 S	109 19 W	5.0	2	2	22.4	34.87	100	4	2	1	3	
84	88-11-17	1.0	5 04 S	109 19 W	5.0	2	2	22.4	34.87				2	5	
85	88-11-18	1.0	4 28 S	111 40 W	4.0	2	2	22.2	34.90	5	1		1	4	
85	88-11-18	1.0	4 28 S	111 40 W	4.0	2	2	22.2	34.90	100	4	4	2	3	
85	88-11-18	1.0	4 28 S	111 40 W	4.0	2	2	22.2	34.90	700	2	3	3	1	1
86	88-11-19	1.0	3 23 S	114 44 W	5.0	3	1	22.6	35.03	5	1		1	2	
86	88-11-19	1.0	3 23 S	114 44 W	5.0	3	1	22.6	35.03	30	1		2	4	
86	88-11-19	1.0	3 23 S	114 44 W	5.0	3	1	22.6	35.03	100	3	1	3	1	1
86	88-11-19	1.0	3 23 S	114 44 W	5.0	3	1	22.6	35.03	700	1	1			
87	88-11-20	1.0	2 22 S	118 23 W	2.0	3	2	21.6	34.91	20	1	1	1	4	
87	88-11-20	1.0	2 22 S	118 23 W	2.0	3	2	21.6	34.91	100	5	11	2	1	
87	88-11-20	1.0	2 22 S	118 23 W	2.0	3	2	21.6	34.91	700	1	1			
88	88-11-21	1.0	2 23 S	121 31 W	3.0	4	2	21.5	35.05	100	3		1	2	
88	88-11-21	1.0	2 23 S	121 31 W	3.0	4	2	21.5	35.05				2	3	
89	88-11-22	1.0	2 00 S	125 10 W	4.0	4	2	23.6	35.12	100	1	1	2	2	
89	88-11-22	1.0	2 00 S	125 10 W	4.0	4	2	23.6	35.12				3	1	1
90	88-11-23	1.0	2 30 S	127 13 W	3.0	4	1	23.0	35.05	20	1	1	1	4	
90	88-11-23	1.0	2 30 S	127 13 W	3.0	4	1	23.0	35.05	30	1		2	2	
90	88-11-23	1.0	2 30 S	127 13 W	3.0	4	1	23.0	35.05	100	5	7			
91	88-11-24	1.0	0 35 S	125 20 W	3.0	4	1	19.7	35.02	100	4	13	1	2	
91	88-11-24	1.0	0 35 S	125 20 W	3.0	4	1	19.7	35.02	300	1		2	2	
91	88-11-24	1.0	0 35 S	125 20 W	3.0	4	1	19.7	35.02	700	1	2			
92	88-11-25	1.0	1 34 N	124 41 W	4.0	4	1	21.9	34.50	20	1		1	2	
92	88-11-25	1.0	1 34 N	124 41 W	4.0	4	1	21.9	34.50	30	1		2	4	
92	88-11-25	1.0	1 34 N	124 41 W	4.0	4	1	21.9	34.50	100	5	15			
93	88-11-26	1.0	4 43 N	124 20 W	3.0	5	3	26.0	34.12	10	4	7	1	2	
93	88-11-26	1.0	4 43 N	124 20 W	3.0	5	3	26.0	34.12	20	1	2			
93	88-11-26	1.0	4 43 N	124 20 W	3.0	5	3	26.0	34.12	30	2	1			
94	88-11-27	1.0	7 32 N	123 57 W	4.0	5	2	26.7	34.53	30	1	1	2	2	1
94	88-11-27	1.0	7 32 N	123 57 W	4.0	5	2	26.7	34.53	100	4	6			

Table 5. continued.

Station Number[1]	Date Y/M/D	Hours of Effort	Location Latitude	Location Longitude	Sea State[2]	Moon Phase[3]	Sky Cond.[4]	SST (C)	SSS (%)	Fish Species[5]	Relative Abundance (Fish)[6]	Number Collected (Fish)	Squid Type[7]	Relative Abundance (Squid)[6]	Number Collected (Squid)
94	88-11-27	1.0	7 32 N	123 57 W	4.0	5	2	26.7	34.53	300	1				
95	88-11-28	1.0	10 45 N	123 16 W	3.0	5	1	24.7	33.74	10	3	3	2	3	
95	88-11-28	1.0	10 45 N	123 16 W	3.0	5	1	24.7	33.74	20	1				
95	88-11-28	1.0	10 45 N	123 16 W	3.0	5	1	24.7	33.74	30	1				
95	88-11-28	1.0	10 45 N	123 16 W	3.0	5	1	24.7	33.74	100	2	1			
95	88-11-28	1.0	10 45 N	123 16 W	3.0	5	1	24.7	33.74	300	1				
95	88-11-28	1.0	10 45 N	123 16 W	3.0	5	1	24.7	33.74	400	1				
95	88-11-28	1.0	10 45 N	123 16 W	3.0	5	1	24.7	33.74	500	1	3			
96	88-11-29	1.0	13 59 N	122 26 W	5.0	5	1	25.9	33.56	10	1	1	2	3	
96	88-11-29	1.0	13 59 N	122 26 W	5.0	5	1	25.9	33.56	20	2	1	3	2	2
96	88-11-29	1.0	13 59 N	122 26 W	5.0	5	1	25.9	33.56	30	1				
96	88-11-29	1.0	13 59 N	122 26 W	5.0	5	1	25.9	33.56	400	1	1			
	88-11-30		13 32 N	122 22 W						20		3			
97	88-11-30	1.0	17 49 N	121 45 W	3.0	5	3	25.0	34.43	20	2	2	1	2	
97	88-11-30	1.0	17 49 N	121 45 W	3.0	5	3	25.0	34.43	100	2	1			
98	88-12-01	1.0	20 21 N	120 38 W	0.0	5	3	23.0	34.65	30	3				
98	88-12-01	1.0	20 21 N	120 38 W	0.0	5	3	23.0	34.65	60	1				
98	88-12-01	1.0	20 21 N	120 38 W	0.0	5	3	23.0	34.65	100	2				
99	88-12-02	1.0	22 45 N	119 02 W	0.0	5	1	21.8	34.29	30	1		2	3	2
99	88-12-02	1.0	22 45 N	119 02 W	0.0	5	1	21.8	34.29	60	1	2			
99	88-12-02	1.0	22 45 N	119 02 W	0.0	5	1	21.8	34.29	100	3	4			
100	88-12-03	1.0	25 53 N	117 02 W	3.0	5	1	18.2	33.67	100	1	2	2	1	1
101	88-12-04	1.0	27 56 N	115 34 W	4.0	5	2	18.5	33.76	500	1				

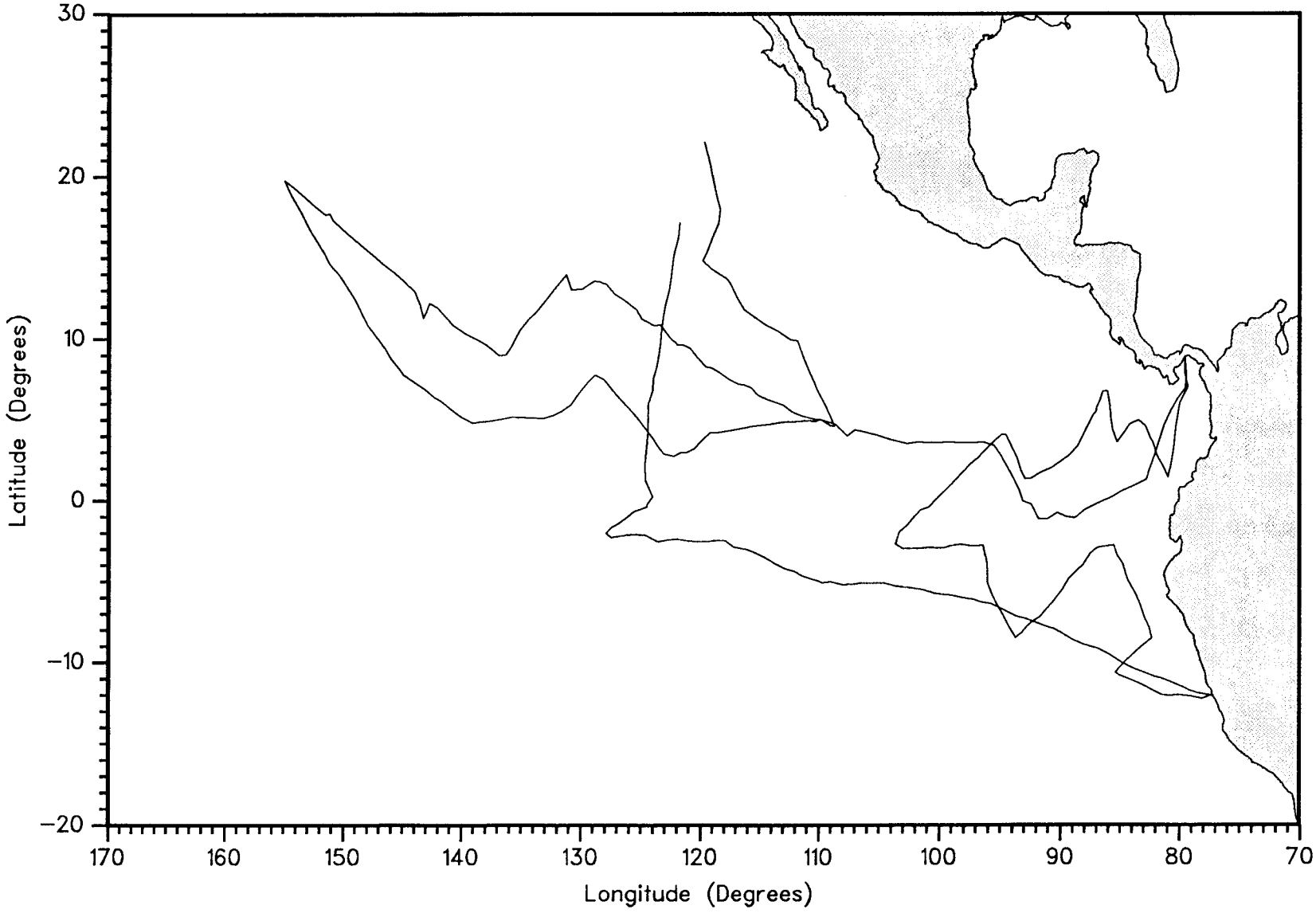

Figure 1. Cruise track, McArthur, 28 July - 6 December, 1988.

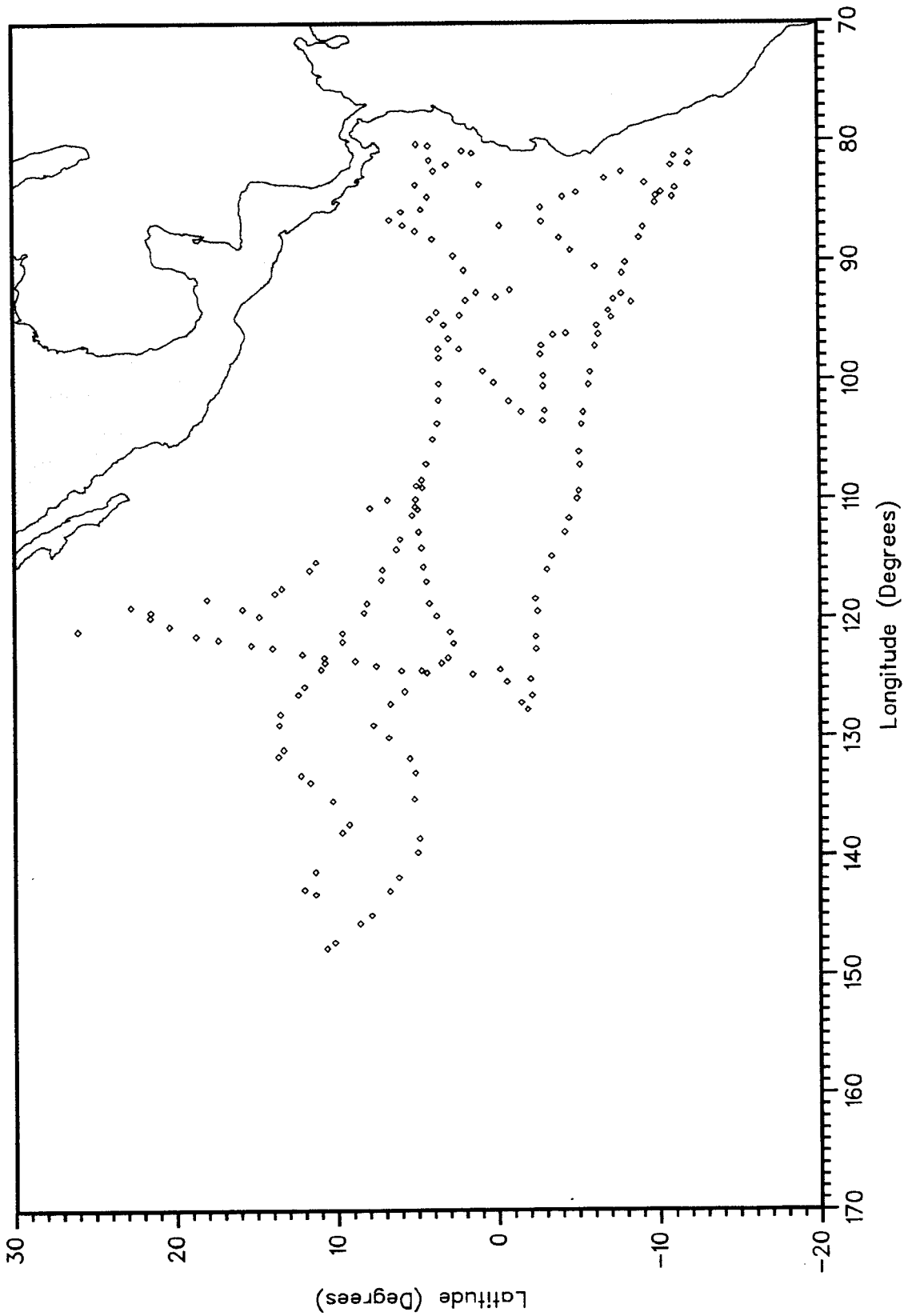

Figure 2. CTD stations, McArthur, 28 July - 6 December, 1988.

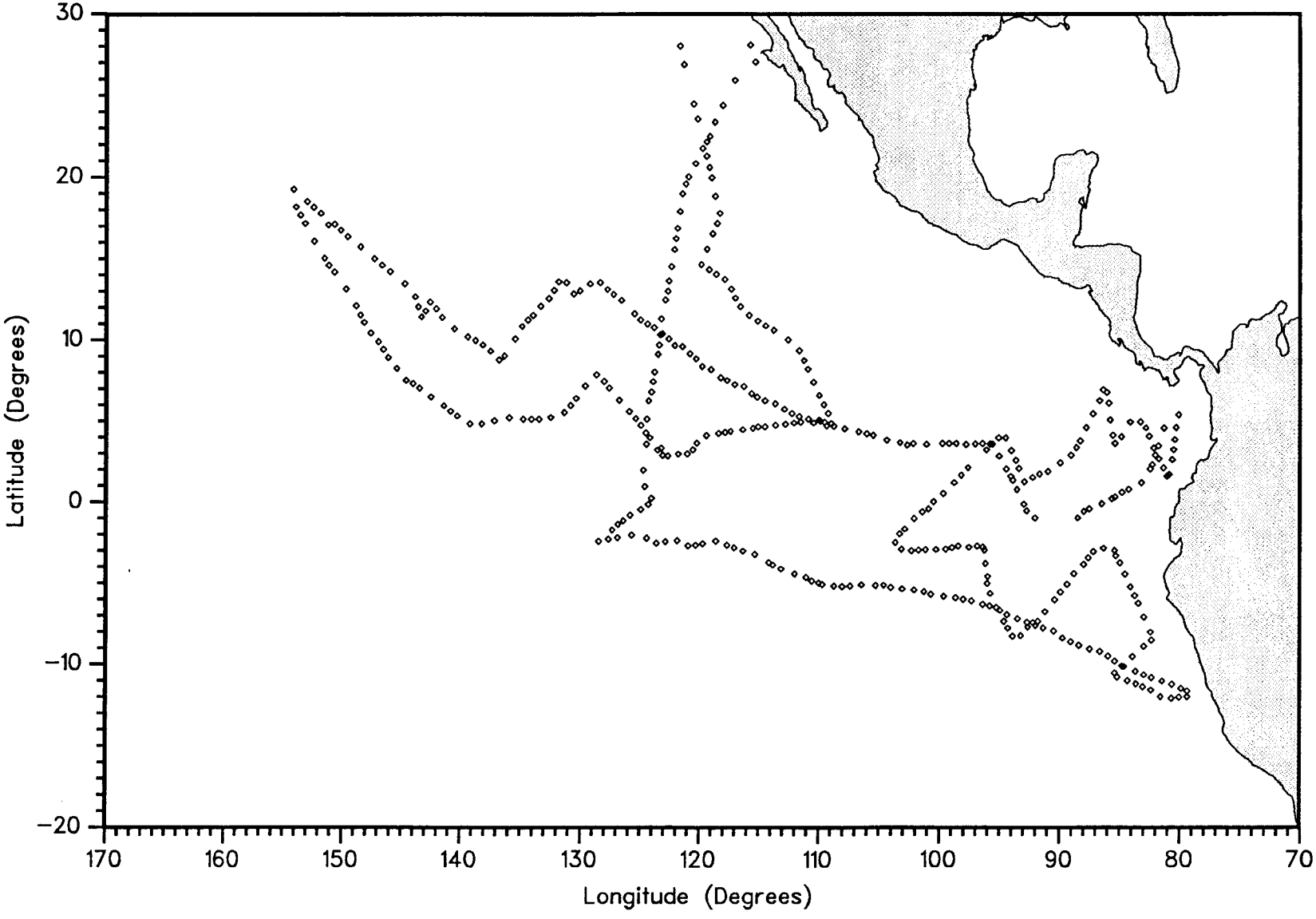

Figure 3. XBT deployments, McArthur, 28 July - 6 December, 1988.

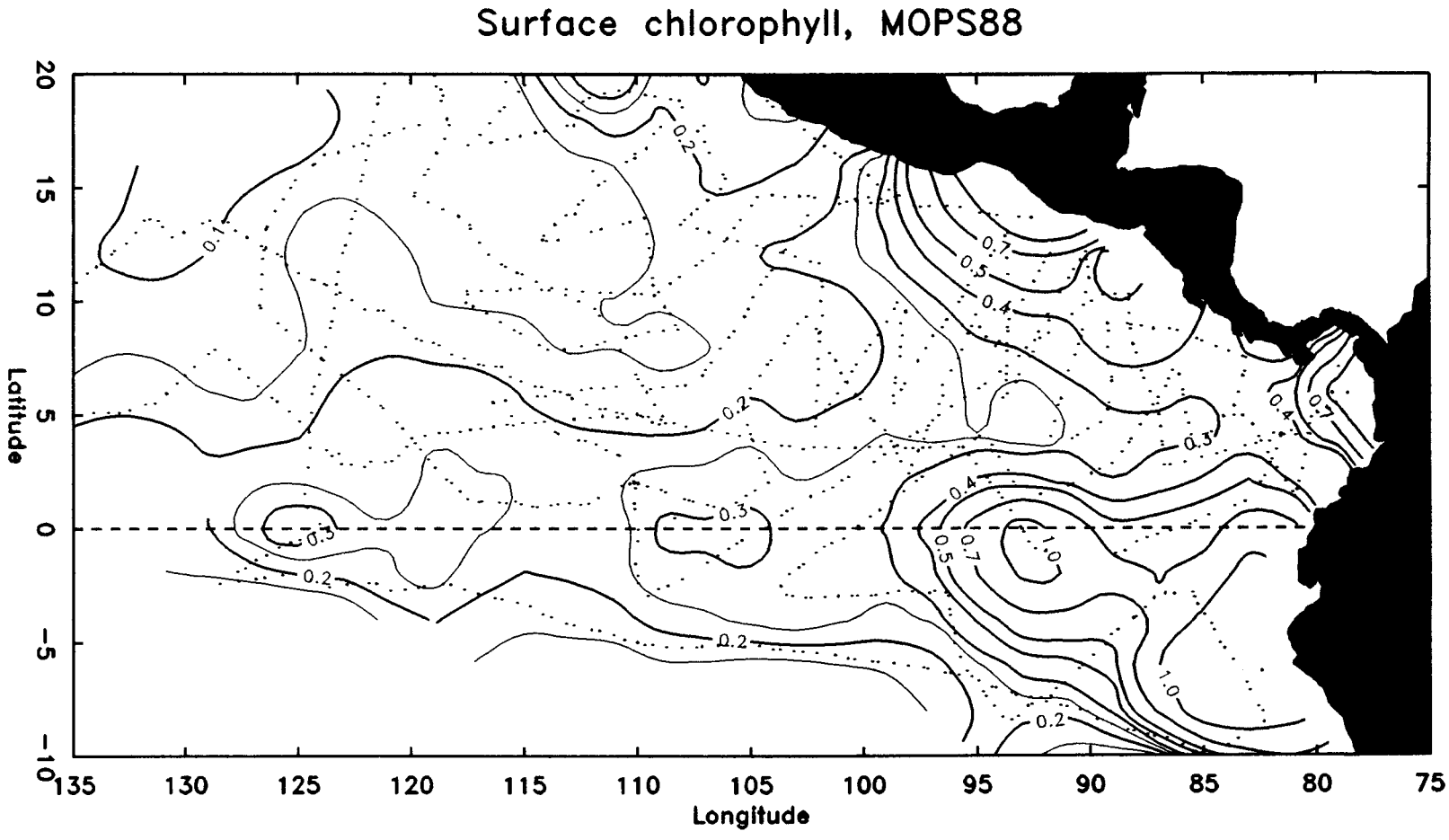

Figure 4. Surface chlorophyll (mg m^{-3}), Jordan and McArthur, 28 July - 6 December, 1988.

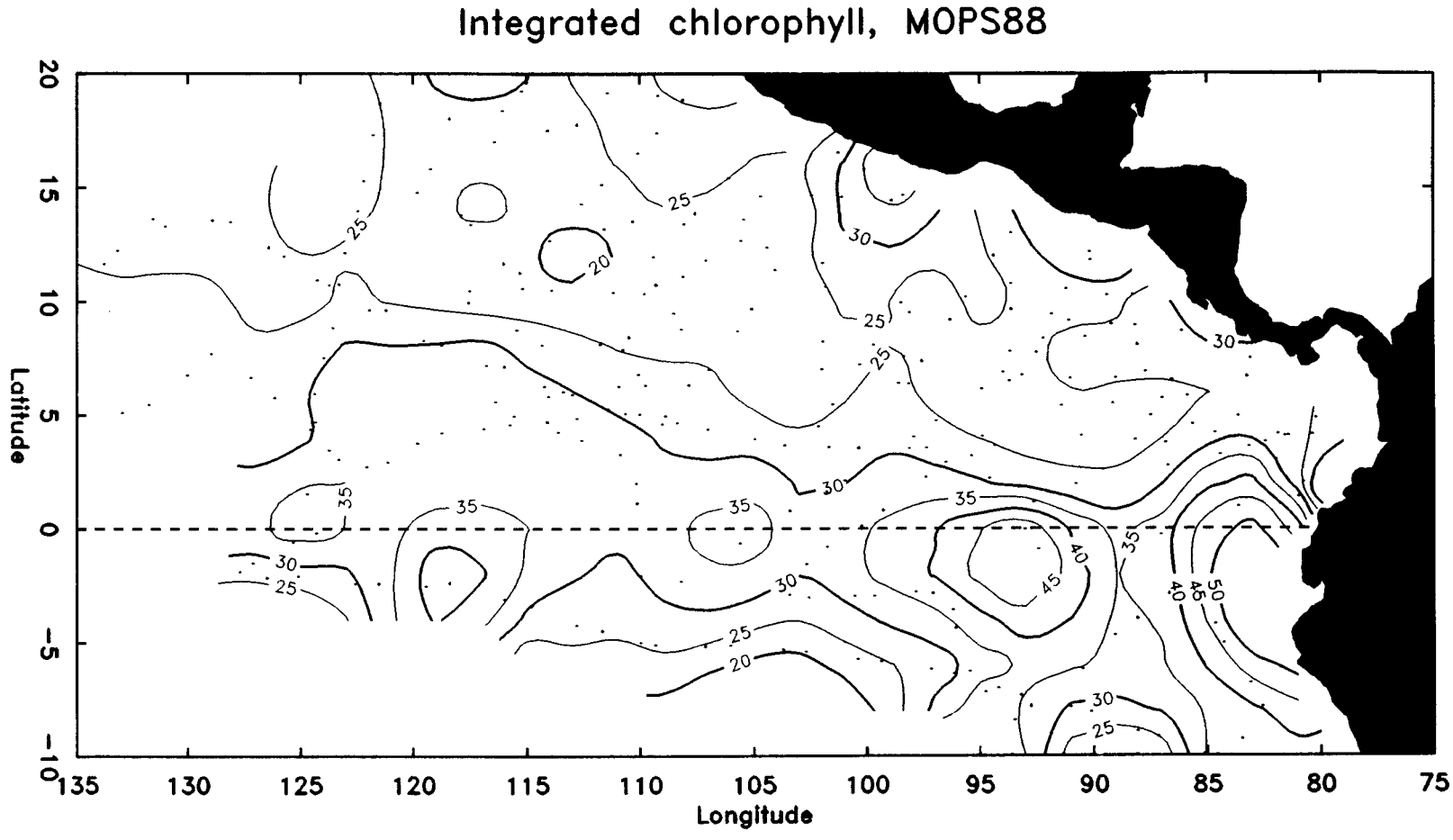

Figure 5. Integrated chlorophyll (mg m^{-2}, 0-150 m), Jordan and McArthur, 28 July - 6 December, 1988.

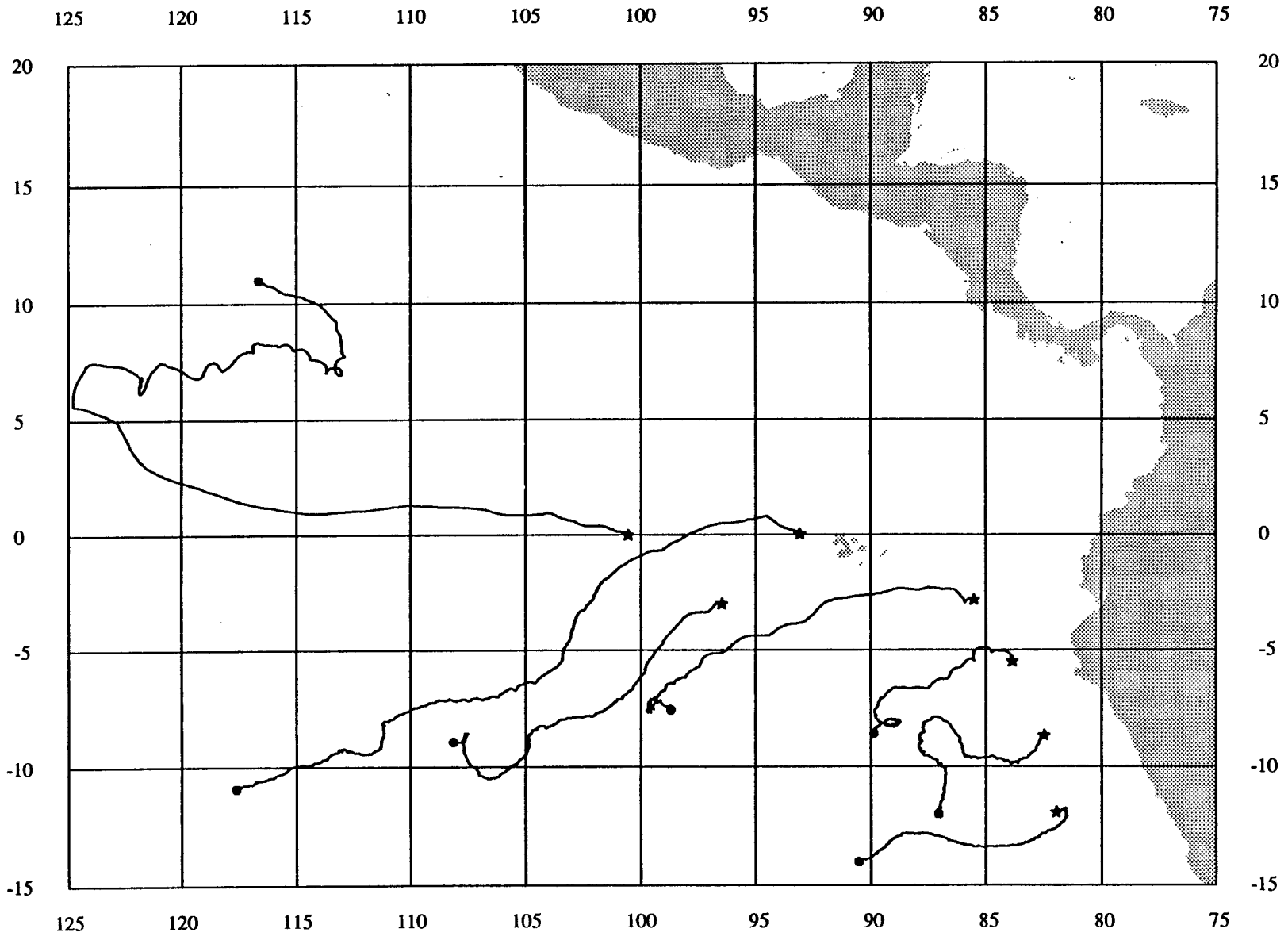

Figure 6. Tracks of seven drifting buoys, McArthur, 28 July - 6 December, 1988.

* Location of buoy deployment
o Location of last signal from buoy

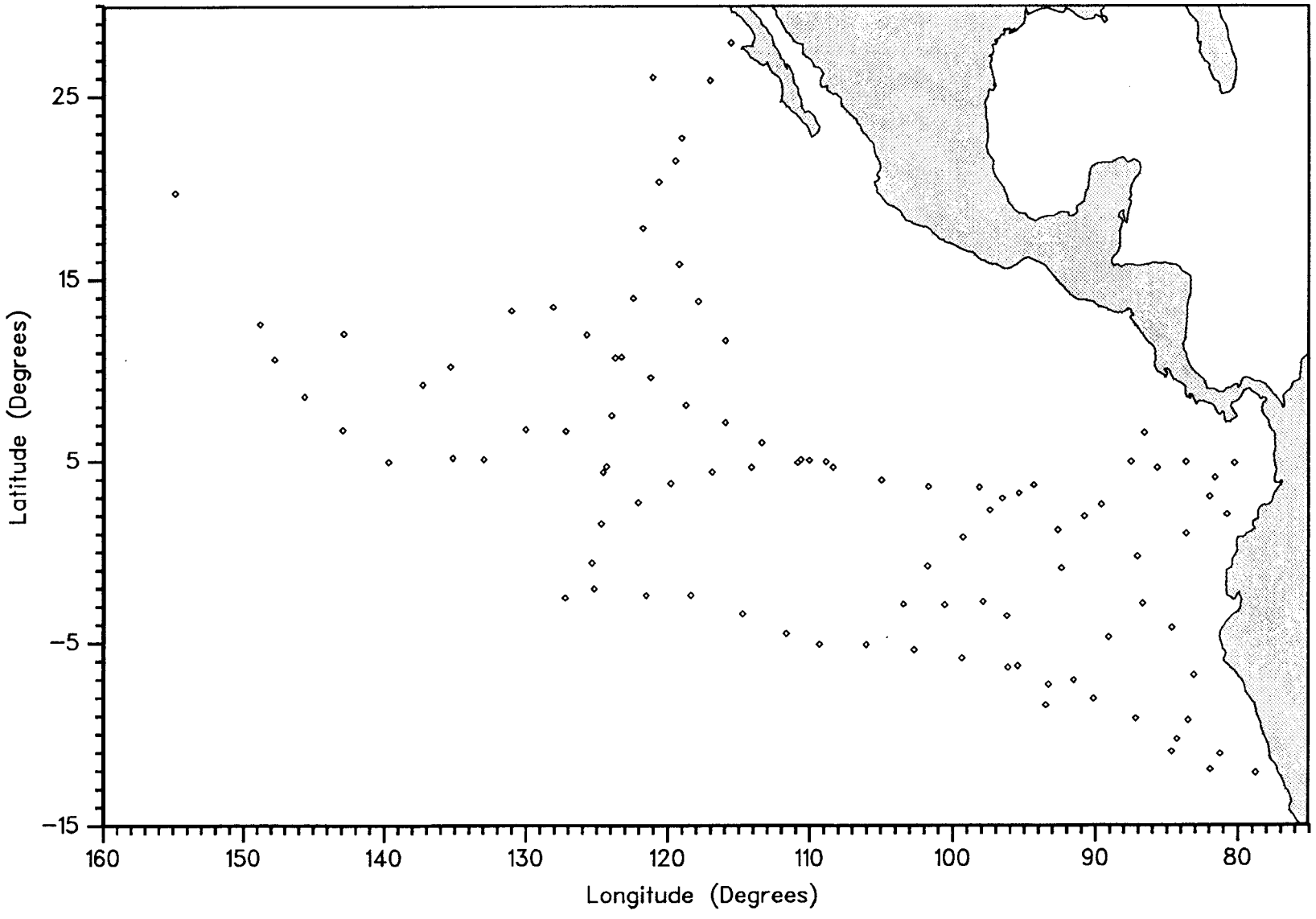

Figure 7. Locations of dip-net stations, McArthur, 28 July - 6 December, 1988.

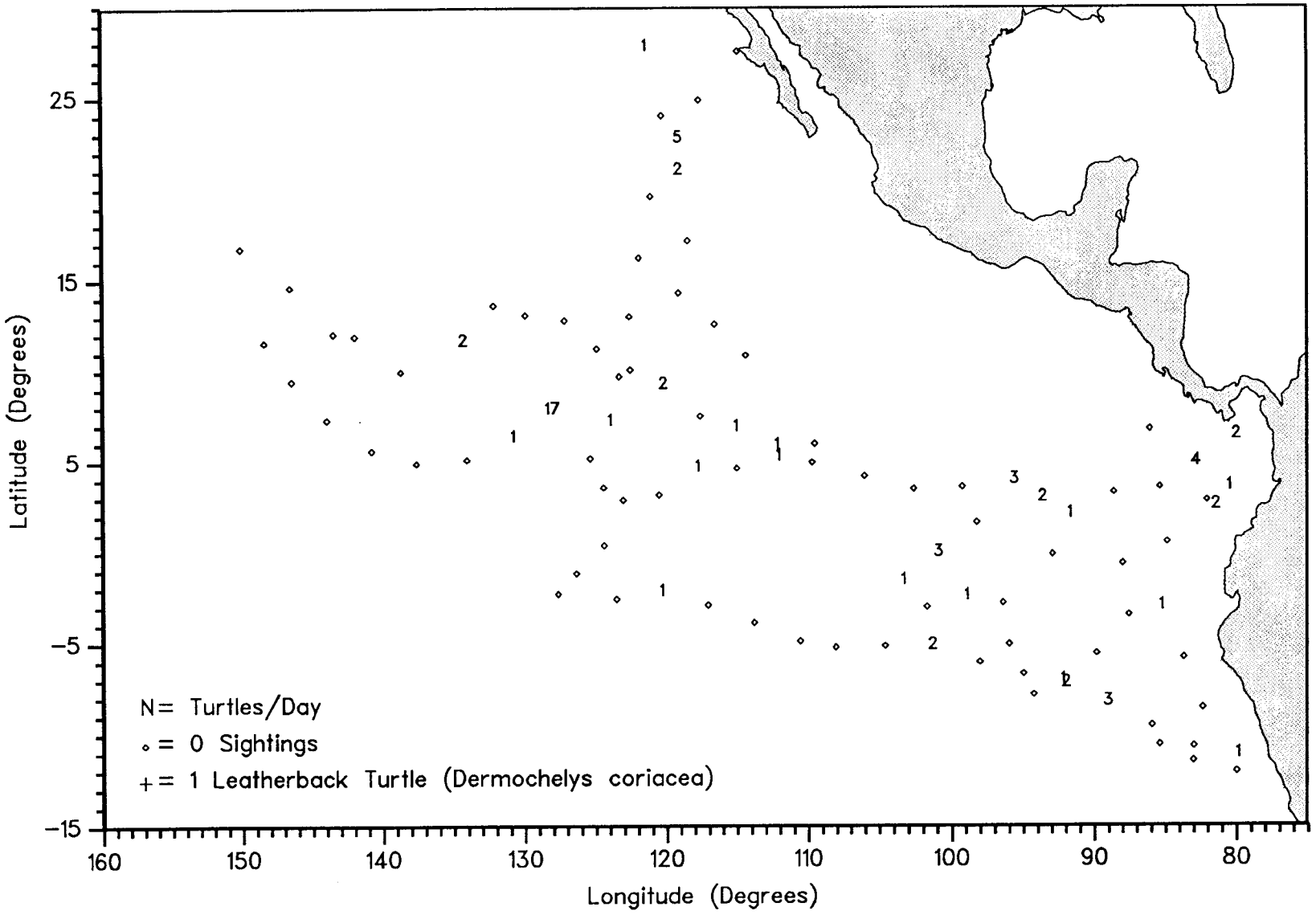

Figure 8. Locations of turtle sightings, McArthur, 28 July - 6 December, 1988.

APPENDIX A

Station No.	1-001	Date - GMT	31 JUL 88
Station Name	M881-001	Time - GMT	0426
Latitude	26. 2.9 N	Date - LOC	30 JUL 88
Longitude	121. 2.6 W	Time - LOC	2126

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	21.49	34.39	0.15	0.01
20	20.12	34.37	0.11	0.02
40	18.96	34.36	0.17	0.02
60	18.26	34.26	0.27	0.00
80	17.17	34.20	--	--
100	14.86	34.08	0.27	0.38
125	12.95	34.16	0.09	0.31
150	11.34	34.25	0.04	0.13
250	7.67	35.38	--	--
350	7.74	34.62	--	--
500	5.85	34.72	--	--
1000	3.66	34.90	--	--

Station No.	1-002	Date - GMT	1 AUG 88
Station Name	M881-002	Time - GMT	1229
Latitude	21.31.5 N	Date - LOC	1 AUG 88
Longitude	119.29.2 W	Time - LOC	0529

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	23.54	35.05	0.08	0.03
20	22.40	35.05	0.06	0.03
40	21.07	34.99	0.08	0.03
60	19.81	34.82	0.12	0.04
80	19.01	34.67	0.15	0.11
100	18.10	34.67	0.20	0.16
125	16.88	34.62	0.21	0.34
150	14.39	34.48	0.09	0.28
250	10.85	34.84	--	--
350	9.16	34.86	--	--
500	7.00	34.83	--	--
1000	4.04	34.90	--	--

Station No.	1-003	Date - GMT	2 AUG 88
Station Name	M881-003	Time - GMT	1226
Latitude	18. 1.6 N	Date - LOC	2 AUG 88
Longitude	118.22.9 W	Time - LOC	0526

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.91	34.97	0.06	0.03
20	24.78	35.08	0.06	0.03
40	23.78	35.12	0.07	0.03
60	21.96	34.96	0.11	0.03
80	20.12	34.77	0.20	0.12
100	17.81	34.54	0.18	0.19
125	15.73	34.36	0.19	0.26
150	13.16	34.72	0.05	0.11
250	10.98	35.09	--	--
350	9.27	35.01	--	--
500	6.97	34.90	--	--
1000	4.08	34.88	--	--

Station No.	1-004	Date - GMT	3 AUG 88
Station Name	M881-004	Time - GMT	0401
Latitude	15.49.7 N	Date - LOC	2 AUG 88
Longitude	119.13.7 W	Time - LOC	2101

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.95	34.78	0.09	0.02
20	25.95	34.77	0.09	0.02
40	23.51	34.92	0.12	0.03
60	21.90	35.02	0.20	0.11
80	20.47	35.12	0.17	0.17
100	18.97	34.88	0.25	0.28
125	16.92	34.79	0.15	0.22
150	13.75	34.54	0.01	0.02
250	10.94	35.13	--	--
350	9.41	35.04	--	--
500	7.39	34.97	--	--
1000	4.06	34.95	--	--

Station No.	1-005	Date - GMT	3 AUG 88
Station Name	M881-005	Time - GMT	1237
Latitude	14.47.3 N	Date - LOC	3 AUG 88
Longitude	119.49.0 W	Time - LOC	0537

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.44	34.37	0.09	0.02
20	26.31	34.55	0.09	0.02
40	25.00	34.75	0.10	0.02
60	22.60	34.84	0.16	0.12
80	21.83	34.94	0.28	0.16
100	20.12	35.05	0.27	0.26
125	17.48	34.96	0.10	0.23
150	13.80	34.65	0.10	0.11
250	11.02	35.13	--	--
350	9.45	35.06	--	--
500	7.52	34.95	--	--
1000	3.92	34.94	--	--

Station No.	1-006	Date - GMT	4 AUG 88
Station Name	M881-006	Time - GMT	0537
Latitude	13.48.4 N	Date - LOC	3 AUG 88
Longitude	117.53.4 W	Time - LOC	2237

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.98	34.08	0.14	0.04
20	27.02	34.11	0.17	0.02
40	26.18	34.49	0.23	0.00
60	24.38	34.85	0.44	0.10
80	22.89	34.91	0.40	0.46
100	18.37	34.90	0.18	0.23
125	13.42	34.90	0.03	0.09
150	12.95	35.16	0.03	0.51
250	11.09	35.18	--	--
350	9.60	35.10	--	--
500	7.59	34.97	--	--
1000	4.33	34.93	--	--

Station No.	1-007	Date - GMT	4 AUG 88
Station Name	M881-007	Time - GMT	1233
Latitude	13.23.3 N	Date - LOC	4 AUG 88
Longitude	117.27.3 W	Time - LOC	0533

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	27.04	34.11	0.14	0.03
20	27.02	34.11	0.13	0.03
40	25.60	34.55	0.19	0.11
60	24.07	34.74	0.37	0.32
80	21.96	34.85	0.26	0.23
100	17.48	35.00	0.15	0.22
125	14.35	35.08	0.02	0.08
150	12.53	35.17	0.01	0.12
250	10.84	35.16	--	--
350	9.52	35.08	--	--
500	7.48	35.50	--	--
1000	4.15	34.95	--	--

Station No.	1-008	Date - GMT	5 AUG 88
Station Name	M881-008	Time - GMT	0349
Latitude	11.39.4 N	Date - LOC	4 AUG 88
Longitude	115.59.8 W	Time - LOC	2049

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	27.20	33.36	0.08	0.03
20	28.26	32.49	0.09	0.02
40	26.62	34.32	0.17	0.04
60	21.58	34.89	0.42	0.49
80	17.17	35.02	0.32	0.60
100	15.06	35.13	0.09	0.31
125	12.86	35.19	0.02	0.49
150	12.36	35.16	0.01	0.10
250	10.76	35.05	--	--
350	9.27	35.02	--	--
500	7.16	34.89	--	--
1000	3.97	34.93	--	--

Station No.	1-009	Date - GMT	5 AUG 88
Station Name	M881-009	Time - GMT	1234
Latitude	11.15.0 N	Date - LOC	5 AUG 88
Longitude	115.17.6 W	Time - LOC	0534

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	28.31	32.14	0.12	0.04
20	27.10	33.01	0.13	0.03
40	27.13	33.83	0.18	0.15
60	22.78	34.74	0.44	0.28
80	15.68	35.14	0.19	0.32
100	13.71	--	0.05	0.35
125	12.82	35.23	0.05	0.13
150	12.16	--	0.01	0.05
250	10.69	35.17	--	--
350	9.27	35.02	--	--
500	8.70	33.71	--	--
1000	4.10	34.81	--	--

Station No.	1-010	Date - GMT	7 AUG 88
Station Name	M881-010	Time - GMT	0140
Latitude	7.52.7 N	Date - LOC	6 AUG 88
Longitude	110.45.0 W	Time - LOC	1840

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	27.71	32.71	0.13	0.04
20	26.53	33.61	0.12	0.03
40	26.53	33.82	0.17	0.13
60	25.89	35.53	0.47	0.19
80	18.79	34.74	0.28	0.29
100	16.41	35.27	0.20	0.32
125	12.84	35.18	0.05	0.12
150	12.06	35.22	0.03	0.03
250	10.36	35.14	--	--
350	9.62	35.11	--	--
500	9.21	33.82	--	--
1000	4.08	34.75	--	--

Station No.	1-011	Date - GMT	7 AUG 88
Station Name	M881-011	Time - GMT	1220
Latitude	6.48.0 N	Date - LOC	7 AUG 88
Longitude	110. 3.4 W	Time - LOC	0520

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.35	33.59	0.14	0.04
20	26.35	33.70	0.12	0.04
40	26.35	33.56	0.13	0.04
60	25.66	34.62	0.46	0.21
80	16.26	35.37	0.25	0.48
100	13.42	35.27	0.07	0.14
125	12.55	--	0.03	0.08
150	12.22	--	0.01	0.03
250	10.72	35.18	--	--
350	9.50	35.10	--	--
500	7.76	34.98	--	--
1000	3.92	34.99	--	--

Station No.	1-012	Date - GMT	8 AUG 88
Station Name	M881-012	Time - GMT	0316
Latitude	4.58.7 N	Date - LOC	7 AUG 88
Longitude	108.52.3 W	Time - LOC	2016

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.93	34.04	0.16	0.04
20	25.86	34.08	0.15	0.04
40	24.75	34.70	0.30	0.09
60	22.38	34.99	0.32	0.20
80	19.50	35.20	0.33	0.36
100	17.94	35.14	0.19	0.25
125	14.55	35.23	0.06	0.11
150	12.69	35.22	0.02	0.06
250	11.02	35.21	--	--
350	9.23	35.11	--	--
500	7.47	35.05	--	--
1000	4.13	34.94	--	--

Station No.	1-013	Date - GMT	8 AUG 88
Station Name	M881-013	Time - GMT	1213
Latitude	4.37.5 N	Date - LOC	8 AUG 88
Longitude	109. 2.0 W	Time - LOC	0513

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.66	34.25	0.18	0.08
20	25.64	34.26	0.16	0.07
40	22.58	35.01	0.34	0.17
60	20.61	35.32	0.28	0.13
80	19.67	35.37	0.23	0.17
100	18.23	35.31	0.21	0.16
125	13.68	35.10	0.04	0.08
150	12.82	35.23	0.02	0.08
250	10.60	35.13	--	--
350	9.58	35.15	--	--
500	7.47	35.03	--	--
1000	4.04	34.97	--	--

Station No.	1-014	Date - GMT	9 AUG 88
Station Name	M881-014	Time - GMT	0315
Latitude	5. 4.8 N	Date - LOC	8 AUG 88
Longitude	110.38.8 W	Time - LOC	2015

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.76	34.09	0.26	0.11
20	25.76	34.03	0.29	0.09
40	26.33	33.70	0.40	0.29
60	23.96	34.71	0.33	0.58
80	19.36	35.12	0.26	0.42
100	14.49	35.16	0.07	0.14
125	13.15	35.27	0.03	0.07
150	12.58	35.27	0.01	0.02
250	10.71	35.18	--	--
350	9.43	35.10	--	--
500	7.34	34.99	--	--
1000	5.83	--	--	--

Station No.	1-015	Date - GMT	9 AUG 88
Station Name	M881-015	Time - GMT	1218
Latitude	5.17.1 N	Date - LOC	9 AUG 88
Longitude	111.24.2 W	Time - LOC	0518

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.93	33.97	0.20	0.10
20	25.93	33.95	0.20	0.07
40	23.89	34.90	0.42	0.27
60	21.67	35.16	0.24	0.18
80	20.36	35.19	0.13	0.19
100	18.10	35.13	0.10	0.20
125	13.33	35.29	0.06	0.14
150	12.33	35.26	0.01	0.04
250	10.72	35.17	--	--
350	9.30	--	--	--
500	7.50	--	--	--
1000	4.10	34.97	--	--

Station No.	1-016	Date - GMT	10 AUG 88
Station Name	M881-016	Time - GMT	0320
Latitude	6. 1.9 N	Date - LOC	9 AUG 88
Longitude	113.23.5 W	Time - LOC	2020

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.38	33.93	0.13	0.00
20	26.28	33.91	0.11	0.04
40	25.58	34.43	0.44	0.16
60	23.98	34.75	0.34	0.18
80	23.47	34.96	0.33	0.18
100	18.50	35.15	0.16	0.28
125	13.44	35.27	0.06	0.12
150	12.67	35.32	0.01	0.03
250	10.69	35.17	--	--
350	9.34	35.11	--	--
500	7.83	35.05	--	--
1000	4.17	34.96	--	--

Station No.	1-017	Date - GMT	10 AUG 88
Station Name	M881-017	Time - GMT	1235
Latitude	6.15.3 N	Date - LOC	10 AUG 88
Longitude	114.13.1 W	Time - LOC	0535

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.17	34.07	0.19	0.05
20	25.93	34.17	0.30	0.09
40	25.27	34.61	0.39	0.24
60	23.91	34.87	0.38	0.32
80	22.69	35.12	0.24	0.17
100	21.69	35.23	0.16	0.19
125	15.93	35.08	0.08	0.19
150	12.84	--	0.02	0.07
250	11.05	35.23	--	--
350	9.69	35.11	--	--
500	7.83	35.05	--	--
1000	4.28	34.97	--	--

Station No.	1-018	Date - GMT	11 AUG 88
Station Name	M881-018	Time - GMT	0316
Latitude	7. 8.1 N	Date - LOC	10 AUG 88
Longitude	115.58.7 W	Time - LOC	2016

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.75	34.32	0.20	0.08
20	25.60	34.31	0.28	0.09
40	25.07	34.51	0.35	0.18
60	24.62	34.65	0.38	0.19
80	23.85	34.98	0.33	0.19
100	22.29	35.30	0.25	0.18
125	20.18	35.17	0.18	0.29
150	15.10	35.42	0.08	0.26
250	11.62	35.24	--	--
350	10.12	35.16	--	--
500	8.32	35.08	--	--
1000	4.15	34.98	--	--

Station No.	1-019	Date - GMT	11 AUG 88
Station Name	M881-019	Time - GMT	1234
Latitude	7.12.0 N	Date - LOC	11 AUG 88
Longitude	116.46.4 W	Time - LOC	0534

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.71	33.47	0.20	0.10
20	25.49	34.38	0.20	0.08
40	25.33	34.47	0.45	0.14
60	24.87	34.70	0.36	0.18
80	24.07	34.79	0.31	0.20
100	22.72	34.98	0.27	0.22
125	21.09	35.31	0.22	0.22
150	15.17	35.26	0.11	0.20
250	11.54	35.22	--	--
350	10.22	35.14	--	--
500	8.72	--	--	--
1000	4.28	34.92	--	--

Station No.	1-020	Date - GMT	12 AUG 88
Station Name	M881-020	Time - GMT	0318
Latitude	8. 5.7 N	Date - LOC	11 AUG 88
Longitude	118.45.2 W	Time - LOC	2018

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.29	34.41	0.13	0.03
20	26.28	34.38	0.15	0.03
40	26.22	34.40	0.17	0.08
60	26.11	34.57	0.37	0.14
80	19.70	35.20	0.35	0.38
100	14.75	35.25	0.20	0.35
125	12.98	35.19	0.13	0.03
150	11.91	35.21	0.04	0.07
250	10.56	35.15	--	--
350	9.58	35.11	--	--
500	8.32	35.08	--	--
1000	4.19	34.97	--	--

Station No.	1-021	Date - GMT	12 AUG 88
Station Name	M881-021	Time - GMT	1244
Latitude	8.17.6 N	Date - LOC	12 AUG 88
Longitude	119.32.4 W	Time - LOC	0544

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.22	34.51	0.22	0.10
20	26.22	34.49	0.21	0.09
40	26.24	34.55	0.22	0.10
60	23.89	35.00	0.37	0.17
80	16.50	35.18	0.31	0.25
100	13.66	35.11	0.17	0.23
125	12.38	35.34	0.10	0.22
150	11.67	35.18	0.04	0.11
250	10.31	35.17	--	--
350	9.58	35.13	--	--
500	8.23	35.06	--	--
1000	4.26	34.96	--	--

Station No.	1-022	Date - GMT	13 AUG 88
Station Name	M881-022	Time - GMT	0339
Latitude	9.37.0 N	Date - LOC	12 AUG 88
Longitude	121.12.7 W	Time - LOC	2039

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.15	33.56	0.15	0.04
20	26.15	33.55	0.16	0.06
40	18.52	36.02	0.31	0.16
60	14.37	35.20	0.25	0.25
80	12.91	35.18	0.15	0.25
100	12.20	35.12	0.08	0.20
125	11.69	35.24	0.05	0.10
150	11.33	36.72	0.02	0.03
250	10.29	35.15	--	--
350	9.41	35.11	--	--
500	7.90	35.02	--	--
1000	4.04	34.97	--	--

Station No.	1-023	Date - GMT	13 AUG 88
Station Name	M881-023	Time - GMT	1246
Latitude	9.37.6 N	Date - LOC	13 AUG 88
Longitude	121.55.9 W	Time - LOC	0546

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.04	33.73	--	--
20	26.08	33.46	0.27	0.06
40	19.34	34.88	0.39	0.24
60	14.48	35.12	0.20	0.66
80	12.98	35.29	0.13	0.28
100	12.33	35.23	0.05	0.16
125	11.87	35.22	0.12	0.42
150	11.42	35.15	0.01	0.03
250	10.20	35.14	--	--
350	9.29	35.95	--	--
500	7.83	35.03	--	--
1000	4.10	34.97	--	--

Station No.	1-024	Date - GMT	14 AUG 88
Station Name	M881-024	Time - GMT	0357
Latitude	10.43.3 N	Date - LOC	13 AUG 88
Longitude	123.42.2 W	Time - LOC	2057

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.62	33.77	0.18	0.08
20	26.58	33.81	0.20	0.08
40	23.12	34.85	0.43	0.38
60	15.86	34.77	0.28	0.26
80	13.06	35.58	0.13	0.19
100	21.36	--	0.04	0.31
125	11.96	--	0.02	0.08
150	11.44	35.27	0.00	0.02
250	10.14	35.15	--	--
350	9.41	35.11	--	--
500	7.96	35.08	--	--
1000	4.01	34.95	--	--

Station No.	1-025	Date - GMT	14 AUG 88
Station Name	M881-025	Time - GMT	1320
Latitude	10.57.4 N	Date - LOC	14 AUG 88
Longitude	124.14.3 W	Time - LOC	0620

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.80	33.85	0.14	0.04
20	25.49	34.53	0.22	0.11
40	19.70	35.04	0.36	0.32
60	15.40	35.53	0.28	0.29
80	13.68	--	0.10	0.33
100	12.49	35.16	0.00	0.86
125	11.69	35.19	0.01	0.04
150	11.25	--	0.00	0.03
250	10.20	36.77	--	--
350	9.34	35.11	--	--
500	7.83	35.07	--	--
1000	4.13	34.93	--	--

Station No.	1-026	Date - GMT	15 AUG 88
Station Name	M881-026	Time - GMT	0418
Latitude	11.59.4 N	Date - LOC	14 AUG 88
Longitude	125.43.1 W	Time - LOC	2118

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.89	33.80	0.17	0.04
20	25.58	34.45	0.22	0.11
40	22.56	34.88	0.66	0.00
60	19.76	35.08	0.35	0.34
80	15.24	34.68	0.25	0.24
100	13.66	35.13	0.08	0.20
125	12.35	35.12	0.05	0.46
150	11.94	35.09	0.01	0.05
250	10.40	35.01	--	--
350	9.27	34.93	--	--
500	8.60	33.72	--	--
1000	4.02	34.89	--	--

Station No.	1-027	Date - GMT	15 AUG 88
Station Name	M881-027	Time - GMT	1321
Latitude	12.22.3 N	Date - LOC	15 AUG 88
Longitude	126.23.0 W	Time - LOC	0521

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	27.10	33.77	0.14	0.04
20	26.00	34.57	0.19	0.11
40	23.49	34.81	0.43	0.32
60	18.36	34.80	0.30	0.34
80	15.70	34.61	0.19	0.23
100	13.57	35.05	0.06	0.15
125	12.33	35.14	0.01	0.07
150	11.85	35.12	0.01	0.10
250	10.22	35.14	--	--
350	9.05	35.02	--	--
500	7.27	34.93	--	--
1000	3.95	34.91	--	--

Station No.	1-028	Date - GMT	16 AUG 88
Station Name	M881-028	Time - GMT	0420
Latitude	13.29.9 N	Date - LOC	15 AUG 88
Longitude	128. 5.0 W	Time - LOC	2020

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	27.50	34.32	0.07	0.03
20	27.06	34.29	0.08	0.02
40	26.48	34.39	0.12	0.03
60	22.87	34.85	0.29	0.21
80	17.99	32.81	0.33	0.47
100	15.10	34.81	0.15	0.26
125	11.94	34.63	0.02	0.04
150	11.07	34.80	0.00	0.02
250	9.23	34.91	--	--
350	7.85	34.88	--	--
500	6.57	34.91	--	--
1000	3.82	34.94	--	--

Station No.	1-029	Date - GMT	16 AUG 88
Station Name	M881-029	Time - GMT	1311
Latitude	13.34.1 N	Date - LOC	16 AUG 88
Longitude	128.54.7 W	Time - LOC	0511

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	27.60	33.93	0.10	0.03
20	27.40	34.03	0.11	0.02
40	25.98	34.53	0.24	0.09
60	21.87	34.81	0.41	0.42
80	18.14	34.89	0.22	0.28
100	15.39	34.90	0.07	0.16
125	13.69	35.05	0.02	0.15
150	12.16	35.02	0.01	0.05
250	10.94	33.84	--	--
350	9.78	33.78	--	--
500	8.19	33.67	--	--
1000	3.97	34.84	--	--

Station No.	1-030	Date - GMT	17 AUG 88
Station Name	M881-030	Time - GMT	0419
Latitude	13.17.7 N	Date - LOC	16 AUG 88
Longitude	130.59.7 W	Time - LOC	2019

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	27.73	34.14	0.09	0.01
20	26.48	34.65	0.06	0.02
40	25.53	34.94	0.10	0.02
60	22.89	34.82	0.15	0.10
80	20.68	34.93	0.34	0.34
100	18.94	35.23	0.30	0.39
125	15.24	34.77	0.09	0.20
150	13.18	34.93	0.02	0.05
250	10.71	35.10	--	--
350	9.16	35.27	--	--
500	7.21	34.95	--	--
1000	3.88	34.94	--	--

Station No.	1-031	Date - GMT	17 AUG 88
Station Name	M881-031	Time - GMT	1322
Latitude	13.38.0 N	Date - LOC	17 AUG 88
Longitude	131.33.6 W	Time - LOC	0522

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	27.20	34.38	0.08	0.02
20	26.28	34.71	0.07	0.03
40	24.47	34.90	0.10	0.02
60	22.69	34.97	0.15	0.05
80	20.23	35.11	0.29	0.41
100	18.86	35.01	0.30	0.36
125	15.75	34.78	0.12	0.21
150	12.55	34.76	0.02	0.06
250	10.54	35.17	--	--
350	9.36	35.06	--	--
500	7.41	34.97	--	--
1000	4.01	--	--	--

Station No.	1-032	Date - GMT	18 AUG 88
Station Name	M881-032	Time - GMT	0450
Latitude	12.13.9 N	Date - LOC	17 AUG 88
Longitude	133. 9.0 W	Time - LOC	2050

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	27.64	33.59	0.07	0.03
20	26.71	34.57	0.08	0.03
40	25.15	33.43	0.16	0.07
60	22.43	35.05	0.44	0.00
80	18.48	34.96	0.27	0.44
100	15.55	34.72	0.14	0.23
125	12.64	34.65	0.03	0.07
150	11.07	34.73	0.00	0.02
250	11.00	34.32	--	--
350	9.00	34.95	--	--
500	7.12	34.95	--	--
1000	5.28	33.66	--	--

Station No.	1-033	Date - GMT	18 AUG 88
Station Name	M881-033	Time - GMT	1350
Latitude	11.39.3 N	Date - LOC	18 AUG 88
Longitude	133.45.0 W	Time - LOC	0550

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	--	--	0.08	0.03
20	27.88	33.36	0.08	0.03
40	26.82	33.72	0.13	0.05
60	22.45	34.02	0.40	0.35
80	18.03	33.87	0.26	0.35
100	15.64	33.87	0.17	0.25
125	12.49	34.89	0.03	0.08
150	11.62	35.16	0.02	0.06
250	11.62	34.04	--	--
350	9.62	35.06	--	--
500	7.92	34.85	--	--
1000	5.41	33.63	--	--

Station No.	1-034	Date - GMT	19 AUG 88
Station Name	M881-034	Time - GMT	0446
Latitude	10.15.5 N	Date - LOC	18 AUG 88
Longitude	135.19.8 W	Time - LOC	2046

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.46	33.54	0.10	0.03
20	26.71	34.10	0.14	0.03
40	23.65	34.76	0.38	0.20
60	19.54	34.74	0.34	0.37
80	15.31	35.12	0.26	0.33
100	14.06	35.08	0.12	0.29
125	12.51	35.10	0.03	0.08
150	11.84	35.19	0.01	0.03
250	10.45	35.17	--	--
350	9.69	35.11	--	--
500	8.07	35.04	--	--
1000	4.32	34.95	--	--

Station No.	1-035	Date - GMT	20 AUG 88
Station Name	M881-035	Time - GMT	0518
Latitude	9.14.5 N	Date - LOC	19 AUG 88
Longitude	137.16.7 W	Time - LOC	2118

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.69	33.82	0.14	0.03
20	26.91	34.49	0.15	0.04
40	26.77	33.92	0.14	0.04
60	24.45	34.91	0.33	0.18
80	18.45	34.93	0.29	0.31
100	14.46	34.96	0.18	0.39
125	12.40	35.07	0.05	0.12
150	11.82	35.09	0.01	0.03
250	10.45	35.12	--	--
350	9.47	35.04	--	--
500	7.99	35.05	--	--
1000	4.44	34.93	--	--

Station No.	1-036	Date - GMT	20 AUG 88
Station Name	M881-036	Time - GMT	1415
Latitude	9.40.7 N	Date - LOC	20 AUG 88
Longitude	137.58.3 W	Time - LOC	0615

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.66	33.91	0.13	0.05
20	26.69	33.96	0.14	0.03
40	26.55	34.56	0.30	0.10
60	20.80	35.18	0.28	0.51
80	16.28	34.94	0.27	0.35
100	13.48	35.07	0.11	0.27
125	12.07	35.16	0.02	0.05
150	11.64	35.18	0.00	0.03
250	10.36	35.15	--	--
350	9.54	35.01	--	--
500	7.94	34.98	--	--
1000	4.15	34.95	--	--

Station No.	1-037	Date - GMT	21 AUG 88
Station Name	M881-037	Time - GMT	1415
Latitude	11.20.5 N	Date - LOC	21 AUG 88
Longitude	141.17.6 W	Time - LOC	0515

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.86	33.89	0.14	0.04
20	27.20	34.42	0.12	0.05
40	27.02	34.61	0.16	0.09
60	19.72	34.85	0.27	0.17
80	13.98	34.93	0.23	0.23
100	12.75	35.04	0.15	0.26
125	12.11	35.18	0.04	0.08
150	11.54	35.20	0.00	0.03
250	10.23	35.14	--	--
350	9.54	35.11	--	--
500	8.47	35.06	--	--
1000	4.50	34.94	--	--

Station No.	1-038	Date - GMT	22 AUG 88
Station Name	M881-038	Time - GMT	0517
Latitude	12. 1.6 N	Date - LOC	21 AUG 88
Longitude	142.47.6 W	Time - LOC	2017

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.93	33.68	0.16	0.02
20	28.19	32.83	0.16	0.05
40	23.14	32.96	0.32	0.10
60	15.62	33.78	0.18	0.19
80	14.13	33.96	0.15	0.20
100	13.26	33.94	0.07	0.26
125	12.42	33.93	0.04	0.10
150	12.15	33.90	0.03	0.01
250	10.00	35.10	--	--
350	9.14	35.08	--	--
500	7.87	35.00	--	--
1000	4.19	34.96	--	--

Station No.	1-039	Date - GMT	22 AUG 88
Station Name	M881-039	Time - GMT	1450
Latitude	11.19.4 N	Date - LOC	22 AUG 88
Longitude	143.11.6 W	Time - LOC	0550

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.71	33.64	0.19	0.07
20	26.60	33.95	0.31	0.12
40	17.01	34.75	0.35	0.42
60	14.02	34.94	0.21	0.26
80	12.11	34.76	0.00	0.14
100	12.13	34.79	0.03	0.07
125	11.64	35.10	0.01	0.09
150	11.29	35.03	0.01	0.03
250	10.22	35.00	--	--
350	9.27	35.06	--	--
500	7.72	35.01	--	--
1000	4.21	34.96	--	--

Station No.	2-040	Date - GMT	4 SEP 88
Station Name	M882-040	Time - GMT	0620
Latitude	10.38.2 N	Date - LOC	3 SEP 88
Longitude	147.44.0 W	Time - LOC	2020

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.91	33.36	0.13	0.04
20	26.88	33.80	0.13	0.04
40	24.14	34.88	0.30	0.10
60	17.26	35.28	0.32	0.29
80	13.46	34.93	0.22	0.30
100	12.47	35.03	0.08	0.14
125	11.62	35.10	0.02	0.08
150	11.14	35.14	0.02	0.03
250	9.83	35.10	--	--
350	8.89	35.04	--	--
500	7.88	34.83	--	--
1000	4.28	34.90	--	--

Station No.	2-041	Date - GMT	4 SEP 88
Station Name	M882-041	Time - GMT	1458
Latitude	10. 9.0 N	Date - LOC	4 SEP 88
Longitude	147.14.0 W	Time - LOC	0458

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.79	33.66	0.14	0.04
20	26.91	33.80	0.15	0.04
40	23.00	34.93	0.29	0.13
60	17.99	35.67	0.25	0.25
80	14.42	34.81	0.17	0.29
100	12.46	35.11	0.10	0.23
125	11.54	35.12	0.02	0.09
150	11.03	35.09	0.01	0.03
250	9.89	35.10	--	--
350	9.20	35.08	--	--
500	7.76	34.96	--	--
1000	4.30	34.90	--	--

Station No.	2-042	Date - GMT	5 SEP 88
Station Name	M882-042	Time - GMT	0551
Latitude	8.34.6 N	Date - LOC	4 SEP 88
Longitude	145.36.4 W	Time - LOC	1951

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	27.35	34.04	0.07	0.03
20	27.13	34.09	0.08	0.03
40	27.19	34.43	0.11	0.04
60	26.17	34.94	0.22	0.15
80	21.38	35.19	0.28	0.21
100	15.79	34.68	0.26	0.53
125	12.00	35.10	0.09	0.22
150	11.36	35.22	0.03	0.09
250	9.82	35.12	--	--
350	8.96	35.08	--	--
500	8.01	35.04	--	--
1000	4.50	34.96	--	--

Station No.	2-043	Date - GMT	5 SEP 88
Station Name	M882-043	Time - GMT	1443
Latitude	7.51.0 N	Date - LOC	5 SEP 88
Longitude	144.57.1 W	Time - LOC	0443

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.82	34.16	0.14	0.00
20	27.24	34.90	0.13	0.04
40	27.20	35.03	0.13	0.04
60	26.82	34.74	0.19	0.12
80	21.60	34.12	0.27	0.32
100	16.21	34.95	0.24	0.24
125	12.98	34.65	0.09	0.22
150	11.13	35.05	0.03	0.03
250	9.61	35.12	--	--
350	9.01	35.09	--	--
500	8.01	35.07	--	--
1000	4.39	34.97	--	--

Station No.	2-044	Date - GMT	6 SEP 88
Station Name	M882-044	Time - GMT	0546
Latitude	6.44.0 N	Date - LOC	5 SEP 88
Longitude	142.53.9 W	Time - LOC	1946

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.53	35.24	0.14	0.06
20	26.53	35.28	0.17	0.06
40	23.13	35.31	0.23	0.12
60	23.05	35.34	0.21	0.13
80	22.76	35.37	0.19	0.14
100	22.69	35.42	0.23	0.14
125	21.43	35.40	0.13	0.20
150	20.63	35.45	0.03	0.06
250	10.43	34.99	--	--
350	9.36	35.08	--	--
500	8.41	35.04	--	--
1000	4.43	34.91	--	--

Station No.	2-045	Date - GMT	6 SEP 88
Station Name	M882-045	Time - GMT	1417
Latitude	6.10.9 N	Date - LOC	6 SEP 88
Longitude	141.45.7 W	Time - LOC	0517

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.38	35.23	0.18	0.11
20	24.22	35.20	0.24	0.09
40	23.71	35.28	0.22	0.13
60	23.58	35.30	0.24	0.07
80	23.27	35.34	0.18	0.13
100	22.89	35.35	0.16	0.14
125	21.50	35.16	0.11	0.15
150	20.69	35.38	0.11	0.15
250	11.31	35.09	--	--
350	9.47	35.10	--	--
500	8.29	35.06	--	--
1000	4.37	34.95	--	--

Station No.	2-046	Date - GMT	7 SEP 88
Station Name	M882-046	Time - GMT	0446
Latitude	4.59.7 N	Date - LOC	6 SEP 88
Longitude	139.40.6 W	Time - LOC	1946

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.60	35.31	0.19	0.11
20	25.40	35.29	0.23	0.09
40	25.60	34.65	0.24	0.09
60	24.55	34.81	0.28	0.09
80	23.49	34.32	0.30	0.17
100	22.00	35.34	0.22	0.14
125	22.21	35.62	0.14	0.14
150	21.45	35.57	0.09	0.08
250	10.36	35.10	--	--
350	9.10	36.30	--	--
500	7.96	35.02	--	--
1000	4.13	34.96	--	--

Station No.	2-047	Date - GMT	7 SEP 88
Station Name	M882-047	Time - GMT	1415
Latitude	4.52.9 N	Date - LOC	7 SEP 88
Longitude	138.28.4 W	Time - LOC	0515

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.86	35.25	0.26	0.00
20	25.82	35.27	0.20	0.11
40	25.80	35.29	0.19	0.11
60	25.66	35.28	0.20	0.12
80	24.80	35.32	0.28	0.15
100	22.29	35.44	0.15	0.17
125	19.30	35.15	0.17	0.13
150	14.13	35.04	0.04	0.09
250	9.69	35.03	--	--
350	8.87	34.91	--	--
500	7.68	34.79	--	--
1000	4.02	34.92	--	--

Station No.	2-048	Date - GMT	8 SEP 88
Station Name	M882-048	Time - GMT	1344
Latitude	5.11.7 N	Date - LOC	8 SEP 88
Longitude	135. 9.2 W	Time - LOC	0444

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.67	34.97	0.20	0.06
20	24.56	35.07	0.18	0.09
40	24.56	35.07	0.20	0.09
60	24.56	35.07	0.19	0.08
80	24.53	35.09	0.17	0.09
100	--	--	0.17	0.10
125	22.34	35.35	0.14	0.11
150	19.88	35.32	0.08	0.07
250	10.43	34.92	--	--
350	9.36	34.92	--	--
500	8.23	34.95	--	--
1000	4.13	34.77	--	--

Station No.	2-049	Date - GMT	9 SEP 88
Station Name	M882-049	Time - GMT	0441
Latitude	5. 7.8 N	Date - LOC	8 SEP 88
Longitude	132.57.2 W	Time - LOC	1941

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.09	35.07	0.19	0.11
20	26.02	35.10	0.19	0.12
40	26.00	35.05	0.29	0.11
60	25.38	35.14	0.28	0.14
80	24.98	35.05	0.21	0.13
100	25.06	35.21	0.23	0.14
125	21.47	35.40	0.12	0.21
150	15.46	35.04	0.08	0.18
250	10.71	35.15	--	--
350	9.49	35.10	--	--
500	9.41	33.89	--	--
1000	4.30	34.77	--	--

Station No.	2-050	Date - GMT	9 SEP 88
Station Name	M882-050	Time - GMT	1344
Latitude	5.28.9 N	Date - LOC	9 SEP 88
Longitude	131.44.7 W	Time - LOC	0444

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.86	35.14	0.22	0.11
20	25.91	35.10	0.24	0.13
40	25.91	35.10	0.23	0.12
60	25.80	35.15	0.26	0.17
80	24.65	35.23	0.26	0.23
100	23.22	35.19	0.28	0.14
125	22.63	35.24	0.18	0.14
150	18.65	35.99	0.13	0.18
250	10.74	35.08	--	--
350	9.54	35.11	--	--
500	8.18	35.04	--	--
1000	4.06	34.95	--	--

Station No.	2-051	Date - GMT	10 SEP 88
Station Name	M882-051	Time - GMT	0412
Latitude	6.46.4 N	Date - LOC	9 SEP 88
Longitude	130. 1.1 W	Time - LOC	1912

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.73	35.08	0.15	0.05
20	25.47	35.14	0.18	0.10
40	25.35	35.10	0.24	0.11
60	25.00	35.15	0.22	0.14
80	23.74	35.11	0.22	0.21
100	21.50	35.20	0.16	0.23
125	17.23	35.03	0.12	0.21
150	13.27	35.27	0.06	0.15
250	10.38	35.15	--	--
350	9.69	35.02	--	--
500	8.12	34.96	--	--
1000	4.32	34.97	--	--

Station No.	2-052	Date - GMT	10 SEP 88
Station Name	M882-052	Time - GMT	1343
Latitude	7.42.9 N	Date - LOC	10 SEP 88
Longitude	128.57.2 W	Time - LOC	0443

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.26	34.00	0.10	0.03
20	26.13	34.05	0.11	0.03
40	26.35	35.20	0.24	0.10
60	26.17	35.28	0.28	0.14
80	24.95	35.08	0.28	0.20
100	18.99	35.42	0.25	0.28
125	14.73	35.13	0.17	0.19
150	12.04	35.00	0.03	0.07
250	10.45	35.34	--	--
350	9.45	35.11	--	--
500	7.99	35.00	--	--
1000	4.23	34.96	--	--

Station No.	2-053	Date - GMT	11 SEP 88
Station Name	M882-053	Time - GMT	0413
Latitude	6.40.4 N	Date - LOC	10 SEP 88
Longitude	127.10.8 W	Time - LOC	1913

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	27.02	34.58	0.10	0.03
20	26.26	34.54	0.12	0.02
40	26.11	34.56	0.13	0.03
60	26.06	35.55	0.17	0.06
80	24.50	35.38	0.36	0.34
100	18.86	35.06	0.29	0.34
125	13.80	35.15	0.07	0.12
150	12.25	35.13	0.02	0.05
250	10.43	35.15	--	--
350	9.65	35.09	--	--
500	8.10	35.02	--	--
1000	3.99	35.05	--	--

Station No.	2-054	Date - GMT	11 SEP 88
Station Name	M882-054	Time - GMT	1334
Latitude	5.46.8 N	Date - LOC	11 SEP 88
Longitude	126. 8.2 W	Time - LOC	0534

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.28	33.54	0.15	0.03
20	26.28	34.44	0.15	0.03
40	26.26	34.56	0.15	0.06
60	25.91	34.40	0.31	0.18
80	24.40	35.30	0.23	0.20
100	19.99	35.16	0.11	0.16
125	14.95	34.92	0.05	0.11
150	12.64	35.20	0.02	0.04
250	9.96	35.10	--	--
350	9.36	35.11	--	--
500	7.92	35.05	--	--
1000	4.02	34.97	--	--

Station No.	2-055	Date - GMT	12 SEP 88
Station Name	M882-055	Time - GMT	0337
Latitude	4.23.9 N	Date - LOC	11 SEP 88
Longitude	124.33.3 W	Time - LOC	1937

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.15	--	0.16	0.03
20	26.17	34.97	0.15	0.04
40	25.93	35.03	0.19	0.11
60	25.07	34.93	0.31	0.17
80	22.60	35.14	0.24	0.31
100	19.68	35.41	0.09	0.09
125	13.98	35.03	0.04	0.10
150	11.27	35.10	0.01	0.02
250	9.60	35.12	--	--
350	8.74	35.08	--	--
500	7.36	35.03	--	--
1000	3.99	34.96	--	--

Station No.	2-056	Date - GMT	12 SEP 88
Station Name	M882-056	Time - GMT	1309
Latitude	3.29.1 N	Date - LOC	12 SEP 88
Longitude	123.43.7 W	Time - LOC	0509

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.95	--	0.26	0.08
20	24.91	34.95	0.24	0.11
40	24.82	35.03	0.30	0.13
60	21.96	35.27	0.32	0.21
80	21.09	35.22	0.31	0.32
100	19.48	35.29	0.24	0.15
125	14.57	34.85	0.05	0.08
150	11.98	35.04	0.02	0.06
250	10.00	35.14	--	--
350	8.87	35.08	--	--
500	7.14	35.00	--	--
1000	4.08	34.95	--	--

Station No.	2-057	Date - GMT	13 SEP 88
Station Name	M882-057	Time - GMT	0342
Latitude	2.44.6 N	Date - LOC	12 SEP 88
Longitude	122. 4.1 W	Time - LOC	1942

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	22.74	--	0.20	0.03
20	22.18	35.12	0.20	0.10
40	21.16	35.17	0.30	0.08
60	20.47	35.24	0.31	0.16
80	19.52	35.37	0.36	0.35
100	17.30	35.43	0.28	0.44
125	13.73	35.31	0.11	0.20
150	13.04	--	0.04	0.07
250	11.38	35.26	--	--
350	9.67	35.13	--	--
500	6.96	35.02	--	--
1000	4.22	34.96	--	--

Station No.	2-058	Date - GMT	13 SEP 88
Station Name	M882-058	Time - GMT	1305
Latitude	2.57.4 N	Date - LOC	13 SEP 88
Longitude	121. 8.0 W	Time - LOC	0505

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	23.13	34.97	0.16	0.09
20	23.07	34.97	0.17	0.09
40	21.63	35.13	0.33	0.20
60	20.58	35.11	0.14	1.12
80	19.50	35.31	0.24	0.41
100	17.55	35.38	0.24	0.26
125	14.35	35.33	0.12	0.26
150	12.95	35.33	0.04	0.08
250	11.82	35.27	--	--
350	10.85	35.22	--	--
500	7.92	35.05	--	--
1000	4.17	34.95	--	--

Station No.	2-059	Date - GMT	14 SEP 88
Station Name	M882-059	Time - GMT	0311
Latitude	3.46.8 N	Date - LOC	13 SEP 88
Longitude	119.48.0 W	Time - LOC	1911

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	22.93	35.21	0.19	0.12
20	22.91	35.06	0.22	0.11
40	23.02	34.91	0.28	0.11
60	22.78	35.04	0.30	0.12
80	21.21	35.31	0.27	0.13
100	19.36	35.37	0.18	0.17
125	14.31	35.42	0.11	0.24
150	13.75	35.38	0.08	0.12
250	12.16	35.27	--	--
350	10.65	35.17	--	--
500	8.54	34.97	--	--
1000	4.12	--	--	--

Station No.	2-060	Date - GMT	14 SEP 88
Station Name	M882-060	Time - GMT	1241
Latitude	4.13.9 N	Date - LOC	14 SEP 88
Longitude	118.44.7 W	Time - LOC	0441

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.80	34.54	0.25	0.11
20	24.64	34.56	0.30	0.12
40	23.20	34.98	0.27	0.12
60	23.21	34.71	0.22	0.14
80	21.27	35.22	0.17	0.15
100	19.67	35.29	0.12	0.14
125	15.33	35.40	0.11	0.16
150	13.69	35.28	0.09	0.13
250	11.13	35.14	--	--
350	9.72	35.06	--	--
500	8.16	34.96	--	--
1000	4.02	34.95	--	--

Station No.	2-061	Date - GMT	15 SEP 88
Station Name	M882-061	Time - GMT	0310
Latitude	4.24.3 N	Date - LOC	14 SEP 88
Longitude	116.54.8 W	Time - LOC	1910

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.91	34.74	0.19	0.07
20	24.87	34.52	0.21	0.10
40	24.53	34.60	0.27	0.11
60	23.14	34.98	0.33	0.23
80	19.50	35.14	0.23	0.33
100	16.90	35.28	0.15	0.28
125	13.40	35.32	0.05	0.13
150	12.89	35.34	0.01	0.03
250	10.34	35.14	--	--
350	9.07	35.10	--	--
500	7.59	35.03	--	--
1000	4.19	34.96	--	--

Station No.	2-062	Date - GMT	15 SEP 88
Station Name	M882-062	Time - GMT	1242
Latitude	4.35.5 N	Date - LOC	15 SEP 88
Longitude	115.44.4 W	Time - LOC	0442

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.13	34.61	0.20	0.11
20	24.40	34.56	0.22	0.11
40	24.09	34.71	0.28	0.11
60	24.00	34.77	0.24	0.11
80	21.01	35.23	0.32	0.20
100	19.59	35.24	0.17	0.15
125	13.95	35.17	0.07	0.12
150	12.69	35.27	0.02	0.06
250	10.69	35.13	--	--
350	9.43	35.08	--	--
500	7.63	34.99	--	--
1000	4.13	34.96	--	--

Station No.	2-063	Date - GMT	16 SEP 88
Station Name	M882-063	Time - GMT	0242
Latitude	4.42.7 N	Date - LOC	15 SEP 88
Longitude	114. 5.8 W	Time - LOC	1842

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.51	34.24	0.16	0.10
20	24.09	34.53	0.23	0.08
40	21.96	34.93	0.26	0.11
60	21.65	34.98	0.31	0.10
80	21.29	35.04	0.23	0.13
100	20.98	35.30	0.22	0.15
125	18.77	35.30	0.14	0.19
150	12.96	35.23	0.04	0.07
250	10.82	35.15	--	--
350	9.29	35.08	--	--
500	7.41	34.99	--	--
1000	4.32	34.92	--	--

Station No.	2-064	Date - GMT	16 SEP 88
Station Name	M882-064	Time - GMT	1244
Latitude	4.52.6 N	Date - LOC	16 SEP 88
Longitude	112.46.8 W	Time - LOC	0544

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.98	34.19	0.20	0.08
20	23.49	34.66	0.24	0.10
40	23.11	34.77	0.24	0.09
60	22.87	34.82	0.24	0.09
80	22.67	34.85	0.24	0.12
100	20.79	35.64	0.21	0.15
125	20.34	36.04	0.13	0.12
150	13.88	35.17	0.06	0.10
250	10.51	35.13	--	--
350	9.49	35.11	--	--
500	7.87	35.05	--	--
1000	5.21	34.96	--	--

Station No.	2-065	Date - GMT	17 SEP 88
Station Name	M882-065	Time - GMT	0244
Latitude	4.55.6 N	Date - LOC	16 SEP 88
Longitude	110.52.3 W	Time - LOC	1944

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.69	34.01	0.19	0.11
20	25.67	34.02	0.22	0.08
40	24.00	34.54	0.39	0.18
60	22.87	34.84	0.29	0.11
80	22.45	34.90	0.23	0.13
100	21.21	35.14	0.21	0.21
125	16.33	35.17	0.10	0.17
150	13.66	35.21	0.05	0.08
250	10.80	--	--	--
350	9.72	34.79	--	--
500	7.76	34.94	--	--
1000	4.21	34.94	--	--

Station No.	2-066	Date - GMT	17 SEP 88
Station Name	M882-066	Time - GMT	1141
Latitude	5. 2.7 N	Date - LOC	17 SEP 88
Longitude	110. 0.9 W	Time - LOC	0441

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.33	34.12	0.18	0.09
20	25.35	34.11	0.20	0.11
40	25.06	35.28	0.25	0.13
60	24.45	35.29	0.29	0.17
80	21.67	34.93	0.36	0.33
100	17.01	34.92	0.17	0.29
125	14.75	35.14	0.08	0.16
150	13.06	35.14	0.04	0.07
250	10.31	35.12	--	--
350	9.43	35.02	--	--
500	7.56	35.01	--	--
1000	4.04	34.95	--	--

Station No.	2-067	Date - GMT	18 SEP 88
Station Name	M882-067	Time - GMT	0242
Latitude	4.40.0 N	Date - LOC	17 SEP 88
Longitude	108.22.4 W	Time - LOC	1942

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.15	33.51	0.15	0.06
20	26.13	33.52	0.16	0.05
40	26.26	33.44	0.16	0.08
60	22.94	34.60	0.48	0.49
80	17.35	35.27	0.25	0.41
100	14.26	35.19	0.08	0.18
125	12.95	35.12	0.02	0.08
150	11.96	35.05	0.01	0.03
250	10.74	34.65	--	--
350	9.32	35.06	--	--
500	7.32	35.03	--	--
1000	4.04	34.99	--	--

Station No.	2-068	Date - GMT	18 SEP 88
Station Name	M882-068	Time - GMT	1214
Latitude	4.23.3 N	Date - LOC	18 SEP 88
Longitude	107. 2.0 W	Time - LOC	0514

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.62	33.87	0.15	0.10
20	26.04	33.56	0.16	0.08
40	26.04	33.55	0.15	0.09
60	21.76	35.08	0.38	0.57
80	18.06	35.18	0.26	0.48
100	13.91	35.14	0.07	0.14
125	12.60	35.15	0.02	0.08
150	11.96	35.14	0.01	0.03
250	10.40	35.15	--	--
350	9.16	35.11	--	--
500	7.28	35.06	--	--
1000	4.08	34.97	--	--

Station No.	2-069	Date - GMT	19 SEP 88
Station Name	M882-069	Time - GMT	0216
Latitude	3.57.9 N	Date - LOC	18 SEP 88
Longitude	104.57.6 W	Time - LOC	1916

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.76	34.14	0.26	0.08
20	24.87	34.04	0.25	0.07
40	23.13	34.67	0.22	0.12
60	23.00	34.71	0.24	0.12
80	20.70	35.21	0.21	0.24
100	16.13	35.34	0.25	0.26
125	13.17	35.18	0.09	0.13
150	12.24	35.20	0.02	0.04
250	10.71	35.17	--	--
350	9.45	35.13	--	--
500	7.23	35.02	--	--
1000	4.24	34.98	--	--

Station No.	2-070	Date - GMT	19 SEP 88
Station Name	M882-070	Time - GMT	1142
Latitude	3.41.1 N	Date - LOC	19 SEP 88
Longitude	103.37.9 W	Time - LOC	0442

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.96	34.33	0.22	0.13
20	24.98	34.32	0.24	0.12
40	24.13	34.52	0.28	0.22
60	20.01	35.19	0.19	0.31
80	16.39	35.30	0.16	0.23
100	14.28	35.06	0.07	0.18
125	13.24	35.33	0.03	0.08
150	12.82	35.31	0.02	0.05
250	11.25	35.21	--	--
350	9.65	35.09	--	--
500	7.48	34.97	--	--
1000	6.25	33.00	--	--

Station No.	2-071	Date - GMT	20 SEP 88
Station Name	M882-071	Time - GMT	0212
Latitude	3.35.8 N	Date - LOC	19 SEP 88
Longitude	101.41.6 W	Time - LOC	1912

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.44	33.36	0.32	0.03
20	26.00	33.68	0.30	0.06
40	25.29	34.21	0.24	0.09
60	20.07	35.18	0.27	0.25
80	15.60	35.28	0.23	0.23
100	14.40	34.87	0.09	0.17
125	14.60	34.27	0.03	0.07
150	13.00	35.34	0.01	0.03
250	11.54	35.24	--	--
350	11.04	33.94	--	--
500	8.10	33.77	--	--
1000	5.63	33.69	--	--

Station No.	2-072	Date - GMT	20 SEP 88
Station Name	M882-072	Time - GMT	1150
Latitude	3.34.4 N	Date - LOC	20 SEP 88
Longitude	100.21.5 W	Time - LOC	0450

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.62	34.27	0.24	0.11
20	24.62	34.26	0.24	0.13
40	24.34	34.37	0.26	0.12
60	17.46	34.94	0.27	0.28
80	15.73	34.74	0.22	0.25
100	14.02	35.28	0.09	0.26
125	14.48	34.27	0.06	0.13
150	13.68	34.78	0.01	0.03
250	--	--	--	--
350	10.10	35.01	--	--
500	7.23	34.76	--	--
1000	4.33	34.89	--	--

Station No.	2-073	Date - GMT	21 SEP 88
Station Name	M882-073	Time - GMT	0217
Latitude	3.33.4 N	Date - LOC	20 SEP 88
Longitude	98. 8.7 W	Time - LOC	1917

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.04	34.20	0.19	0.09
20	25.11	34.14	0.19	0.07
40	25.31	33.99	0.32	0.10
60	20.39	35.11	0.34	0.25
80	15.50	35.13	0.24	0.27
100	14.59	35.26	0.15	0.33
125	13.86	35.31	0.09	0.16
150	13.35	35.33	0.03	0.07
250	12.36	34.84	--	--
350	10.33	35.13	--	--
500	7.58	35.03	--	--
1000	4.22	34.98	--	--

Station No.	2-074	Date - GMT	21 SEP 88
Station Name	M882-074	Time - GMT	1114
Latitude	3.34.5 N	Date - LOC	21 SEP 88
Longitude	97.22.6 W	Time - LOC	0514

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.58	33.79	0.19	0.10
20	25.20	34.09	0.20	0.11
40	25.15	34.15	0.21	0.11
60	17.92	35.46	0.28	0.23
80	14.62	35.37	0.16	0.25
100	14.04	35.31	0.16	0.16
125	13.46	35.38	0.07	0.18
150	12.93	35.33	0.01	0.07
250	11.73	35.23	--	--
350	9.94	35.08	--	--
500	8.16	34.96	--	--
1000	4.79	34.49	--	--

Station No.	2-075	Date - GMT	22 SEP 88
Station Name	M882-075	Time - GMT	0150
Latitude	3.14.1 N	Date - LOC	21 SEP 88
Longitude	95.22.0 W	Time - LOC	1950

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.11	--	0.18	0.05
20	24.95	34.45	0.19	0.06
40	22.43	36.51	0.30	0.17
60	15.84	35.76	0.26	0.28
80	14.90	35.36	0.18	0.29
100	14.09	35.29	0.12	0.21
125	13.46	35.37	0.03	0.08
150	13.04	35.27	0.01	0.03
250	13.06	34.14	--	--
350	10.23	35.06	--	--
500	7.70	34.88	--	--
1000	4.48	34.79	--	--

Station No.	2-076	Date - GMT	22 SEP 88
Station Name	M882-076	Time - GMT	1120
Latitude	2.15.2 N	Date - LOC	22 SEP 88
Longitude	94.34.9 W	Time - LOC	0520

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.96	--	0.27	0.08
20	24.73	34.26	0.31	0.30
40	16.70	35.09	0.28	0.32
60	15.39	35.35	0.23	0.24
80	14.64	35.34	0.11	0.15
100	14.18	35.27	0.01	0.04
125	13.42	35.27	0.00	0.03
150	13.38	35.07	0.01	0.02
250	13.26	34.14	--	--
350	9.67	35.06	--	--
500	7.83	34.89	--	--
1000	4.17	34.73	--	--

Station No.	2-077	Date - GMT	23 SEP 88
Station Name	M882-077	Time - GMT	1633
Latitude	0. 0.2 N	Date - LOC	23 SEP 88
Longitude	93. 1.0 W	Time - LOC	1033

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	16.59	--	2.63	0.03
20	15.46	34.27	0.54	0.42
40	15.13	34.27	0.30	0.41
60	14.15	34.79	0.13	0.23
80	13.93	34.74	0.01	0.47
100	13.48	34.97	0.08	0.10
125	13.38	34.88	0.07	0.16
150	14.00	34.25	0.03	0.08
250	12.58	34.12	--	--
350	10.20	35.18	--	--
500	8.19	35.17	--	--
1000	3.97	34.94	--	--

Station No.	2-078	Date - GMT	24 SEP 88
Station Name	M882-078	Time - GMT	0153
Latitude	0.52.6 S	Date - LOC	23 SEP 88
Longitude	92.26.6 W	Time - LOC	1953

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	16.57	--	2.92	0.07
20	16.30	35.26	2.35	0.59
40	14.31	35.40	0.36	0.36
60	13.75	35.40	0.12	0.18
80	13.53	35.39	0.09	0.13
100	13.11	35.38	0.07	0.09
125	13.06	35.37	0.05	0.07
150	12.89	35.36	0.02	0.05
250	11.94	35.35	--	--
350	10.11	35.21	--	--
500	7.67	35.07	--	--
1000	3.81	34.94	--	--

Station No.	2-079	Date - GMT	27 SEP 88
Station Name	M882-079	Time - GMT	0119
Latitude	0.15.0 S	Date - LOC	26 SEP 88
Longitude	87. 3.6 W	Time - LOC	1919

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	19.39	--	0.70	0.25
20	19.10	34.79	0.81	0.31
40	14.13	35.44	0.43	0.40
60	14.09	35.44	0.35	0.42
80	13.51	35.40	0.04	0.09
100	13.37	35.38	0.04	0.08
125	13.20	35.38	0.02	0.08
150	13.06	35.36	--	--
250	11.56	35.29	--	--
350	9.92	35.18	--	--
500	7.67	35.07	--	--
1000	4.21	34.97	--	--

Station No.	2-080	Date - GMT	28 SEP 88
Station Name	M882-080	Time - GMT	0052
Latitude	0.59.7 N	Date - LOC	27 SEP 88
Longitude	83.38.4 W	Time - LOC	1952

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	23.25	--	0.81	0.23
20	23.12	34.53	0.97	0.27
40	15.17	35.43	0.87	0.66
60	14.18	35.43	0.51	0.46
80	14.09	35.43	0.18	0.19
100	13.93	35.43	0.07	0.09
125	13.22	35.38	0.01	0.03
150	12.93	35.34	0.00	0.02
250	11.56	35.25	--	--
350	9.91	35.15	--	--
500	8.21	35.09	--	--
1000	4.13	34.98	--	--

Station No.	2-081	Date - GMT	29 SEP 88
Station Name	M882-081	Time - GMT	0106
Latitude	4. 6.4 N	Date - LOC	28 SEP 88
Longitude	81.35.0 W	Time - LOC	2006

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.86	--	0.30	0.10
20	25.80	33.76	0.41	0.14
40	18.76	36.17	0.29	0.51
60	15.97	35.39	0.21	0.37
80	14.99	35.37	0.10	0.22
100	14.42	35.98	0.03	0.06
125	14.09	35.44	0.01	0.04
150	13.75	35.38	0.00	0.03
250	12.15	35.27	--	--
350	9.41	35.08	--	--
500	7.63	34.98	--	--
1000	4.39	34.95	--	--

Station No.	3-082	Date - GMT	6 OCT 88
Station Name	M883-082	Time - GMT	0038
Latitude	4.54.3 N	Date - LOC	5 OCT 88
Longitude	80.13.4 W	Time - LOC	1938

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.13	32.55	0.28	0.07
20	26.06	32.56	0.29	0.07
40	24.24	33.95	0.55	0.38
60	15.22	35.37	0.23	0.60
80	14.20	35.41	0.11	0.34
100	13.77	35.40	0.01	0.03
125	13.53	35.38	0.01	0.05
150	13.31	35.36	0.01	0.02
250	11.22	35.21	--	--
350	9.50	35.12	--	--
500	7.52	35.03	--	--
1000	4.10	34.98	--	--

Station No.	3-083	Date - GMT	6 OCT 88
Station Name	M883-083	Time - GMT	1013
Latitude	4. 9.3 N	Date - LOC	6 OCT 88
Longitude	80.21.3 W	Time - LOC	0513

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.13	31.89	0.19	0.03
20	26.13	32.10	0.21	0.08
40	21.14	34.85	0.56	0.40
60	15.33	35.35	0.24	0.41
80	14.40	35.38	0.09	0.17
100	14.15	35.42	0.01	0.05
125	13.75	35.41	0.01	0.02
150	13.38	35.39	0.00	0.02
250	11.58	35.25	--	--
350	9.36	35.13	--	--
500	7.58	35.03	--	--
1000	4.17	35.00	--	--

Station No.	3-084	Date - GMT	7 OCT 88
Station Name	M883-084	Time - GMT	0036
Latitude	2. 3.7 N	Date - LOC	6 OCT 88
Longitude	80.46.2 W	Time - LOC	1936

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.40	34.16	0.38	0.07
20	25.36	34.16	0.40	0.10
40	24.33	34.27	0.40	0.19
60	13.89	35.41	0.15	0.09
80	13.75	35.42	0.11	0.05
100	13.69	35.42	0.07	0.03
125	13.66	35.41	0.03	0.03
150	13.44	35.39	0.02	0.03
250	11.29	35.28	--	--
350	10.34	35.22	--	--
500	7.87	35.05	--	--
1000	4.06	34.99	--	--

Station No.	3-085	Date - GMT	7 OCT 88
Station Name	M883-085	Time - GMT	1017
Latitude	1.26.6 N	Date - LOC	7 OCT 88
Longitude	80.58.9 W	Time - LOC	0517

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.26	33.87	0.43	0.10
20	25.22	33.85	0.46	0.07
40	13.80	35.42	0.33	0.09
60	13.53	35.41	0.05	0.03
80	13.42	35.41	0.03	0.02
100	13.28	35.40	0.01	0.02
125	13.26	35.38	0.01	0.02
150	13.15	35.37	0.01	0.03
250	11.38	35.24	--	--
350	9.92	35.18	--	--
500	7.78	35.07	--	--
1000	4.21	35.01	--	--

Station No.	3-086	Date - GMT	8 OCT 88
Station Name	M883-086	Time - GMT	0046
Latitude	3. 3.0 N	Date - LOC	7 OCT 88
Longitude	81.57.9 W	Time - LOC	1946

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.64	34.12	0.22	0.09
20	25.60	34.13	0.23	0.09
40	17.83	35.30	0.28	0.57
60	15.06	35.41	0.17	0.20
80	14.28	35.40	0.03	0.06
100	13.93	35.41	0.01	0.04
125	13.48	35.37	0.00	0.03
150	13.15	35.37	0.01	0.02
250	11.53	35.24	--	--
350	9.76	35.15	--	--
500	7.88	35.03	--	--
1000	4.10	34.98	--	--

Station No.	3-087	Date - GMT	8 OCT 88
Station Name	M883-087	Time - GMT	1013
Latitude	3.50.4 N	Date - LOC	8 OCT 88
Longitude	82.27.1 W	Time - LOC	0513

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.67	34.11	0.24	0.07
20	25.66	34.12	0.23	0.10
40	17.97	35.15	0.62	0.39
60	15.35	35.42	0.24	0.27
80	14.80	35.41	0.10	0.16
100	14.31	35.41	0.03	0.06
125	14.18	35.85	0.02	0.04
150	13.84	35.38	0.00	0.03
250	11.76	35.28	--	--
350	9.72	35.13	--	--
500	7.58	35.05	--	--
1000	4.37	34.93	--	--

Station No.	3-088	Date - GMT	9 OCT 88
Station Name	M883-088	Time - GMT	0043
Latitude	4.58.0 N	Date - LOC	8 OCT 88
Longitude	83.38.5 W	Time - LOC	1943

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.91	33.89	0.21	0.04
20	25.89	33.90	0.18	0.09
40	21.60	34.89	0.33	0.42
60	15.53	35.32	0.19	0.31
80	14.57	36.42	0.08	0.21
100	14.06	35.45	0.04	0.08
125	13.73	35.36	0.01	0.03
150	13.46	35.36	0.01	0.03
250	11.58	35.22	--	--
350	9.49	35.13	--	--
500	7.68	35.03	--	--
1000	4.21	34.98	--	--

Station No.	3-089	Date - GMT	9 OCT 88
Station Name	M883-089	Time - GMT	1024
Latitude	4.14.1 N	Date - LOC	9 OCT 00
Longitude	84.38.8 W	Time - LOC	0524

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.62	34.07	0.20	0.04
20	25.67	34.02	0.17	0.09
40	25.09	34.25	0.18	0.12
60	17.01	35.27	0.32	0.54
80	14.88	35.41	0.11	0.21
100	14.24	35.40	0.04	0.06
125	13.80	35.39	0.01	0.04
150	13.60	35.35	0.00	0.03
250	12.18	35.29	--	--
350	9.80	35.13	--	--
500	7.54	35.01	--	--
1000	4.22	35.69	--	--

Station No.	3-090	Date - GMT	10 OCT 88
Station Name	M883-090	Time - GMT	0040
Latitude	4.37.8 N	Date - LOC	9 OCT 88
Longitude	85.39.8 W	Time - LOC	1940

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.73	33.98	0.19	0.09
20	25.71	33.98	0.22	0.09
40	22.36	34.35	0.47	0.21
60	16.30	35.41	0.31	0.41
80	14.97	35.34	0.17	0.24
100	15.59	34.35	0.06	0.11
125	13.89	35.29	0.01	0.03
150	13.49	35.32	0.01	0.02
250	11.62	35.25	--	--
350	9.87	35.16	--	--
500	7.63	35.07	--	--
1000	4.13	34.99	--	--

Station No.	3-091	Date - GMT	10 OCT 88
Station Name	M883-091	Time - GMT	1038
Latitude	5.51.2 N	Date - LOC	10 OCT 88
Longitude	85.52.8 W	Time - LOC	0538

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.98	33.66	0.22	0.11
20	26.99	32.93	0.31	0.03
40	17.44	35.31	0.37	0.58
60	15.13	35.39	0.12	0.32
80	14.82	34.80	0.04	0.08
100	13.69	35.34	0.01	0.03
125	13.29	35.34	0.01	0.03
150	12.98	35.33	0.00	0.02
250	11.73	35.27	--	--
350	9.83	35.08	--	--
500	7.59	34.99	--	--
1000	4.28	34.92	--	--

Station No.	3-092	Date - GMT	11 OCT 88
Station Name	M883-092	Time - GMT	0044
Latitude	6.34.5 N	Date - LOC	10 OCT 88
Longitude	86.33.3 W	Time - LOC	1944

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.95	32.70	0.15	0.08
20	25.69	33.64	0.18	0.07
40	19.77	35.47	0.22	0.27
60	16.66	35.34	0.31	0.41
80	14.60	35.36	0.17	0.30
100	13.84	35.35	0.03	0.14
125	13.46	35.37	0.02	0.05
150	13.06	35.34	0.01	0.04
250	11.78	35.01	--	--
350	9.83	34.81	--	--
500	8.83	33.80	--	--
1000	4.68	34.88	--	--

Station No.	3-093	Date - GMT	11 OCT 88
Station Name	M883-093	Time - GMT	1049
Latitude	5.45.2 N	Date - LOC	11 OCT 88
Longitude	86.59.7 W	Time - LOC	0549

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.77	33.84	0.25	0.08
20	25.95	33.69	0.29	0.06
40	18.54	35.14	0.39	0.40
60	17.34	35.01	0.30	0.45
80	15.91	34.99	0.19	0.35
100	14.80	34.74	0.10	0.12
125	13.60	35.30	0.01	0.03
150	13.78	34.88	0.01	0.02
250	12.09	34.94	--	--
350	10.11	34.80	--	--
500	7.50	35.01	--	--
1000	4.24	34.94	--	--

Station No.	3-094	Date - GMT	12 OCT 88
Station Name	M883-094	Time - GMT	0121
Latitude	4.59.6 N	Date - LOC	11 OCT 88
Longitude	87.30.1 W	Time - LOC	2021

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.95	33.78	0.18	0.08
20	25.89	33.82	0.20	0.07
40	20.08	35.08	0.25	0.24
60	16.50	35.26	0.27	0.35
80	15.24	35.35	0.16	0.21
100	14.00	35.37	0.04	0.08
125	13.75	35.37	0.03	0.05
150	13.24	35.35	0.00	0.03
250	11.87	35.25	--	--
350	9.69	35.08	--	--
500	7.56	35.07	--	--
1000	4.39	35.08	--	--

Station No.	3-095	Date - GMT	12 OCT 88
Station Name	M883-095	Time - GMT	1040
Latitude	3.56.5 N	Date - LOC	12 OCT 88
Longitude	88.11.4 W	Time - LOC	0540

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.76	33.87	0.17	0.04
20	25.60	33.97	0.18	0.04
40	19.30	34.85	0.27	0.23
60	16.10	35.36	0.25	0.29
80	15.33	35.12	0.25	0.17
100	14.46	35.39	0.10	0.20
125	13.48	35.30	0.01	0.06
150	13.38	35.21	0.00	0.03
250	12.02	35.14	--	--
350	10.84	34.00	--	--
500	7.90	34.98	--	--
1000	4.46	34.73	--	--

Station No.	3-096	Date - GMT	13 OCT 88
Station Name	M883-096	Time - GMT	0113
Latitude	2.37.7 N	Date - LOC	12 OCT 88
Longitude	89.36.0 W	Time - LOC	2013

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.06	34.13	0.17	0.06
20	24.96	34.16	0.19	0.05
40	17.46	35.31	0.28	0.31
60	15.39	35.47	0.22	0.36
80	15.02	36.39	0.13	0.25
100	14.44	35.40	0.06	0.10
125	13.48	35.39	0.01	0.02
150	13.00	35.32	0.01	0.02
250	--	35.04	--	--
350	9.82	34.64	--	--
500	8.03	34.34	--	--
1000	3.99	34.95	--	--

Station No.	3-097	Date - GMT	13 OCT 88
Station Name	M883-097	Time - GMT	1044
Latitude	1.58.5 N	Date - LOC	13 OCT 88
Longitude	90.47.1 W	Time - LOC	0544

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.51	34.43	0.18	0.04
20	24.47	34.42	0.18	0.06
40	18.39	35.79	0.16	0.16
60	15.13	35.42	0.23	0.23
80	14.75	35.43	0.12	0.21
100	14.17	35.38	0.06	0.10
125	14.02	35.41	0.04	0.04
150	13.33	35.31	0.01	0.05
250	11.76	35.20	--	--
350	9.30	35.13	--	--
500	7.92	35.11	--	--
1000	4.06	34.97	--	--

Station No.	3-098	Date - GMT	14 OCT 88
Station Name	M883-098	Time - GMT	0118
Latitude	1.12.4 N	Date - LOC	13 OCT 88
Longitude	92.38.6 W	Time - LOC	2018

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	23.78	34.58	0.22	0.10
20	23.76	34.59	0.34	0.05
40	15.93	35.30	0.47	0.33
60	13.89	35.36	0.11	0.08
80	13.71	35.98	0.03	0.03
100	13.40	--	0.01	0.03
125	13.20	35.80	0.01	0.02
150	13.07	35.34	0.01	0.02
250	11.67	35.27	--	--
350	10.12	35.25	--	--
500	8.21	35.06	--	--
1000	3.82	34.95	--	--

Station No.	3-099	Date - GMT	14 OCT 88
Station Name	M883-099	Time - GMT	1040
Latitude	1.51.8 N	Date - LOC	14 OCT 88
Longitude	93.17.4 W	Time - LOC	0540

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.67	34.22	0.21	0.10
20	24.66	34.21	0.23	0.09
40	15.88	35.35	0.28	0.37
60	14.40	35.39	0.25	0.53
80	13.66	35.35	0.24	0.19
100	13.44	35.36	0.01	0.03
125	13.35	35.39	0.01	0.02
150	13.28	35.36	0.00	0.02
250	12.44	35.32	--	--
350	9.92	35.15	--	--
500	7.85	35.09	--	--
1000	4.08	34.96	--	--

Station No.	3-100	Date - GMT	15 OCT 88
Station Name	M883-100	Time - GMT	0113
Latitude	3.41.4 N	Date - LOC	14 OCT 88
Longitude	94.20.2 W	Time - LOC	2013

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.18	34.23	0.17	0.06
20	25.48	33.99	0.19	0.07
40	25.00	34.21	0.24	0.09
60	16.55	35.41	0.25	0.25
80	14.77	35.41	0.26	0.58
100	14.09	35.39	0.11	0.33
125	13.57	35.36	--	--
150	13.18	35.33	0.02	0.05
250	12.24	35.30	--	--
350	10.34	35.16	--	--
500	7.76	35.05	--	--
1000	3.92	34.97	--	--

Station No.	3-101	Date - GMT	15 OCT 88
Station Name	M883-101	Time - GMT	1043
Latitude	4. 5.8 N	Date - LOC	15 OCT 88
Longitude	94.53.6 W	Time - LOC	0543

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.15	34.19	0.16	0.04
20	25.24	34.12	0.17	0.04
40	25.27	34.08	0.17	0.04
60	18.34	35.03	0.32	0.36
80	16.06	34.25	0.37	0.50
100	14.08	35.26	0.15	0.37
125	13.22	35.36	0.03	0.07
150	12.96	35.28	0.01	0.05
250	11.91	35.13	--	--
350	10.03	35.15	--	--
500	7.78	35.09	--	--
1000	4.37	34.99	--	--

Station No.	3-102	Date - GMT	16 OCT 88
Station Name	M883-102	Time - GMT	0116
Latitude	2.56.6 N	Date - LOC	15 OCT 88
Longitude	96.31.7 W	Time - LOC	2016

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.64	34.14	0.23	0.10
20	24.62	34.17	0.28	0.08
40	19.98	34.84	0.36	0.27
60	15.02	35.47	0.36	0.46
80	14.06	35.41	0.25	0.34
100	13.82	35.32	0.16	0.21
125	13.44	35.39	0.05	0.09
150	13.18	35.30	0.01	0.04
250	12.73	35.29	--	--
350	10.20	35.13	--	--
500	7.67	35.03	--	--
1000	4.21	34.95	--	--

Station No.	3-103	Date - GMT	16 OCT 88
Station Name	M883-103	Time - GMT	1109
Latitude	2.18.0 N	Date - LOC	16 OCT 88
Longitude	97.24.0 W	Time - LOC	0509

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	23.87	34.36	0.30	0.12
20	23.87	34.35	0.34	0.11
40	18.97	34.97	0.36	0.18
60	14.62	35.40	0.41	0.32
80	13.62	35.28	0.10	0.20
100	13.64	35.16	0.08	0.13
125	13.37	35.31	0.02	0.06
150	13.48	35.02	0.01	0.05
250	12.93	34.68	--	--
350	9.34	35.13	--	--
500	7.79	35.05	--	--
1000	4.01	34.76	--	--

Station No.	3-104	Date - GMT	17 OCT 88
Station Name	M883-104	Time - GMT	0143
Latitude	0.49.4 N	Date - LOC	16 OCT 88
Longitude	99.17.3 W	Time - LOC	1943

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	22.01	34.75	0.17	0.09
20	19.61	34.93	0.48	0.18
40	16.77	35.15	0.58	0.30
60	14.55	35.43	0.32	0.24
80	13.69	35.38	0.11	0.20
100	13.35	35.38	0.09	0.15
125	13.09	35.35	0.03	0.08
150	12.89	35.34	0.01	0.05
250	11.98	35.28	--	--
350	9.54	--	--	--
500	8.03	35.05	--	--
1000	4.01	34.95	--	--

Station No.	3-105	Date - GMT	17 OCT 88
Station Name	M883-105	Time - GMT	1119
Latitude	0. 9.1 N	Date - LOC	17 OCT 88
Longitude	100.14.7 W	Time - LOC	0519

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	18.79	35.21	0.20	0.10
20	17.19	35.17	0.43	0.14
40	15.71	35.28	0.47	0.33
60	14.93	35.29	0.50	0.42
80	13.77	35.23	0.32	0.37
100	13.46	35.25	0.12	0.16
125	13.20	35.25	0.03	0.06
150	12.86	35.31	0.02	0.04
250	12.09	35.99	--	--
350	10.20	--	--	--
500	8.05	35.06	--	--
1000	3.92	34.96	--	--

Station No.	3-106	Date - GMT	18 OCT 88
Station Name	M883-106	Time - GMT	0143
Latitude	0.46.7 S	Date - LOC	17 OCT 88
Longitude	101.44.9 W	Time - LOC	1943

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	19.30	33.32	0.18	0.06
20	17.46	35.28	0.49	0.19
40	15.62	35.36	0.45	0.18
60	14.57	35.56	0.26	0.16
80	13.49	35.39	0.14	0.09
100	13.20	35.39	0.07	0.07
125	12.96	35.37	0.04	0.05
150	12.58	35.34	0.01	0.04
250	11.33	35.24	--	--
350	9.58	35.15	--	--
500	8.03	35.05	--	--
1000	4.01	34.96	--	--

Station No.	3-107	Date - GMT	18 OCT 88
Station Name	M883-107	Time - GMT	1142
Latitude	1.32.3 S	Date - LOC	18 OCT 88
Longitude	102.39.8 W	Time - LOC	0542

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	19.21	35.19	0.17	0.01
20	18.56	35.21	0.23	0.11
40	17.74	36.72	0.35	0.17
60	16.55	35.56	0.36	0.19
80	13.15	--	0.12	0.15
100	12.91	--	0.12	0.19
125	12.62	--	0.03	0.05
150	12.47	35.49	0.01	0.04
250	12.09	34.71	--	--
350	9.58	35.18	--	--
500	7.88	35.05	--	--
1000	4.75	34.95	--	--

Station No.	3-108	Date - GMT	19 OCT 88
Station Name	M883-108	Time - GMT	0211
Latitude	2.52.0 S	Date - LOC	18 OCT 88
Longitude	103.26.1 W	Time - LOC	2011

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	19.94	35.16	0.18	0.15
20	19.32	35.23	0.11	0.06
40	15.68	35.39	0.28	0.39
60	13.88	35.35	0.21	0.35
80	14.35	34.40	0.15	0.31
100	12.89	35.38	0.10	0.23
125	12.73	35.35	0.07	0.09
150	12.46	35.34	0.03	0.06
250	11.94	35.31	--	--
350	9.72	35.16	--	--
500	7.56	--	--	--
1000	4.30	34.97	--	--

Station No.	3-109	Date - GMT	19 OCT 88
Station Name	M883-109	Time - GMT	1146
Latitude	2.59.3 S	Date - LOC	19 OCT 88
Longitude	102.33.4 W	Time - LOC	0546

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.18	--	0.46	0.14
20	19.50	35.63	0.53	0.15
40	19.30	35.30	0.38	0.25
60	14.29	35.43	0.25	0.21
80	13.49	35.42	0.19	0.45
100	13.18	35.39	0.11	0.21
125	13.00	35.39	0.05	0.06
150	12.89	35.39	0.03	0.07
250	12.22	35.34	--	--
350	10.20	35.23	--	--
500	7.48	35.05	--	--
1000	4.15	34.96	--	--

Station No.	3-110	Date - GMT	20 OCT 88
Station Name	M883-110	Time - GMT	0214
Latitude	2.55.1 S	Date - LOC	19 OCT 88
Longitude	100.32.9 W	Time - LOC	2014

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.43	35.31	0.26	0.11
20	21.32	34.31	0.37	0.17
40	18.15	35.21	0.37	0.26
60	15.40	35.38	0.38	0.41
80	13.95	35.35	0.25	0.33
100	13.48	35.35	0.10	0.24
125	13.28	35.12	0.04	0.08
150	12.86	35.26	0.02	0.03
250	12.13	35.31	--	--
350	9.82	35.17	--	--
500	7.56	35.03	--	--
1000	4.04	--	--	--

Station No.	3-111	Date - GMT	20 OCT 88
Station Name	M883-111	Time - GMT	1138
Latitude	2.55.8 S	Date - LOC	20 OCT 88
Longitude	99.40.7 W	Time - LOC	0538

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.19	35.24	0.18	0.11
20	20.21	35.19	0.22	0.11
40	19.61	35.34	0.36	0.15
60	17.04	35.35	0.44	0.31
80	14.75	35.38	0.43	0.25
100	14.59	34.34	0.20	0.27
125	13.11	35.23	0.04	0.08
150	13.88	34.22	0.01	0.03
250	13.09	34.15	--	--
350	9.72	35.13	--	--
500	7.72	35.01	--	--
1000	4.12	34.49	--	--

Station No.	3-112	Date - GMT	21 OCT 88
Station Name	M883-112	Time - GMT	0214
Latitude	2.44.5 S	Date - LOC	20 OCT 88
Longitude	97.51.6 W	Time - LOC	2014

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.08	33.51	0.23	0.10
20	18.63	35.26	0.54	0.19
40	16.81	35.36	0.71	0.26
60	14.06	34.92	0.34	0.28
80	13.18	35.30	0.28	0.26
100	12.84	35.40	0.15	0.18
125	12.76	35.33	0.04	0.06
150	12.55	35.46	0.04	0.08
250	12.07	35.34	--	--
350	9.49	--	--	--
500	7.52	35.05	--	--
1000	4.10	34.98	--	--

Station No.	3-113	Date - GMT	21 OCT 88
Station Name	M883-113	Time - GMT	1113
Latitude	2.48.3 S	Date - LOC	21 OCT 88
Longitude	97. 5.9 W	Time - LOC	0513

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	19.74	33.76	0.23	0.10
20	19.14	35.36	0.38	0.11
40	15.88	35.45	0.59	0.39
60	14.11	35.37	0.09	1.11
80	13.24	36.19	0.21	0.17
100	13.06	35.38	0.13	0.14
125	12.93	35.32	0.08	0.12
150	12.66	35.32	0.02	0.04
250	12.26	35.32	--	--
350	9.91	35.20	--	--
500	7.38	35.05	--	--
1000	4.06	35.01	--	--

Station No.	3-114	Date - GMT	22 OCT 88
Station Name	M883-114	Time - GMT	0217
Latitude	3.32.2 S	Date - LOC	21 OCT 88
Longitude	96.12.6 W	Time - LOC	2017

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.72	35.50	0.28	0.00
20	18.81	35.22	0.24	0.11
40	15.77	35.35	0.48	0.35
60	14.22	35.06	0.31	0.18
80	13.51	35.37	0.19	0.15
100	13.28	35.40	0.13	0.19
125	12.93	35.39	0.06	0.08
150	12.80	35.35	0.02	0.06
250	12.35	35.32	--	--
350	9.98	35.22	--	--
500	7.50	35.07	--	--
1000	4.12	34.97	--	--

Station No.	3-115	Date - GMT	22 OCT 88
Station Name	M883-115	Time - GMT	1038
Latitude	4.20.0 S	Date - LOC	22 OCT 88
Longitude	96. 4.6 W	Time - LOC	0538

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.90	35.61	0.19	0.10
20	21.01	35.55	0.21	0.10
40	19.17	35.41	0.33	0.09
60	17.21	35.28	0.36	0.13
80	15.95	35.40	0.38	0.21
100	14.48	35.45	0.27	0.18
125	13.66	35.36	0.07	0.07
150	13.16	35.39	0.03	0.03
250	11.93	35.31	--	--
350	10.09	35.20	--	--
500	7.38	35.06	--	--
1000	4.04	34.97	--	--

Station No.	3-116	Date - GMT	23 OCT 88
Station Name	M883-116	Time - GMT	0118
Latitude	6.15.0 S	Date - LOC	22 OCT 88
Longitude	95.27.6 W	Time - LOC	2018

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.67	35.33	0.17	0.07
20	20.41	35.33	0.24	0.09
40	20.38	35.38	0.33	0.13
60	19.68	35.34	0.38	0.18
80	17.86	35.34	0.24	0.11
100	15.42	35.53	0.13	0.16
125	13.28	35.47	0.03	0.11
150	12.42	35.36	0.02	0.02
250	10.93	35.27	--	--
350	9.67	35.18	--	--
500	7.23	35.06	--	--
1000	4.04	34.96	--	--

Station No.	3-117	Date - GMT	23 OCT 88
Station Name	M883-117	Time - GMT	1045
Latitude	7. 9.4 S	Date - LOC	23 OCT 88
Longitude	94.44.2 W	Time - LOC	0545

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.83	35.67	0.25	0.06
20	21.21	35.33	0.33	0.02
40	22.03	34.64	0.24	0.10
60	21.40	34.81	0.50	0.27
80	15.57	35.21	0.41	0.31
100	14.90	34.35	0.21	0.18
125	13.16	35.09	0.10	0.11
150	13.53	34.22	0.02	0.06
250	11.40	35.27	--	--
350	10.05	35.18	--	--
500	7.83	34.98	--	--
1000	4.08	34.95	--	--

Station No.	3-118	Date - GMT	24 OCT 88
Station Name	M883-118	Time - GMT	0117
Latitude	8.24.3 S	Date - LOC	23 OCT 88
Longitude	93.28.6 W	Time - LOC	2017

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.80	35.81	0.18	0.12
20	20.74	35.78	0.27	0.10
40	20.59	35.80	0.34	0.10
60	20.56	35.79	0.35	0.17
80	17.15	35.77	0.34	0.35
100	14.04	35.24	0.13	0.34
125	--	--	0.02	0.11
150	12.04	35.30	0.00	0.06
250	10.63	35.24	--	--
350	9.72	35.24	--	--
500	7.54	34.99	--	--
1000	3.92	34.96	--	--

Station No.	3-119	Date - GMT	24 OCT 88
Station Name	M883-119	Time - GMT	1038
Latitude	7.47.2 S	Date - LOC	24 OCT 88
Longitude	92.45.5 W	Time - LOC	0538

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.61	35.83	0.29	0.08
20	20.63	35.79	0.31	0.08
40	20.63	35.77	0.41	0.02
60	20.36	35.80	0.44	0.33
80	16.35	35.53	0.67	0.29
100	13.93	35.41	0.29	0.25
125	12.60	35.40	0.15	0.13
150	11.98	35.37	0.01	0.05
250	11.04	35.28	--	--
350	9.87	35.20	--	--
500	7.56	35.05	--	--
1000	3.88	34.96	--	--

Station No.	3-120	Date - GMT	25 OCT 88
Station Name	M883-120	Time - GMT	1043
Latitude	6. 8.9 S	Date - LOC	25 OCT 88
Longitude	90.30.5 W	Time - LOC	0543

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.03	35.69	0.49	0.00
20	20.05	35.68	0.28	0.09
40	19.48	35.74	0.44	0.39
60	18.37	35.68	0.51	0.58
80	14.91	35.56	0.23	0.50
100	14.04	35.44	0.13	0.35
125	13.49	35.38	0.04	0.10
150	13.04	35.41	0.01	0.06
250	12.02	35.29	--	--
350	10.31	35.23	--	--
500	7.65	35.07	--	--
1000	4.10	34.97	--	--

Station No.	3-121	Date - GMT	26 OCT 88
Station Name	M883-121	Time - GMT	0119
Latitude	4.38.7 S	Date - LOC	25 OCT 88
Longitude	89. 6.3 W	Time - LOC	2019

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	18.96	35.38	0.24	0.10
20	18.85	35.36	0.40	0.00
40	18.57	35.40	0.36	0.17
60	15.37	35.92	0.42	0.46
80	14.48	35.48	0.26	0.30
100	14.02	35.47	0.14	0.18
125	13.62	35.43	0.03	0.05
150	13.46	35.39	0.01	0.04
250	11.73	35.32	--	--
350	9.34	35.15	--	--
500	7.58	35.03	--	--
1000	4.21	34.96	--	--

Station No.	3-122	Date - GMT	26 OCT 88
Station Name	M883-122	Time - GMT	1038
Latitude	3.56.4 S	Date - LOC	26 OCT 88
Longitude	88. 6.0 W	Time - LOC	0538

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	18.46	35.50	0.17	0.06
20	18.54	35.38	0.25	0.08
40	18.12	35.40	0.37	0.00
60	17.04	35.44	0.27	0.13
80	14.31	35.48	0.14	0.22
100	13.62	35.97	0.06	0.06
125	13.28	--	0.01	0.04
150	12.93	35.51	0.00	0.04
250	11.64	--	--	--
350	9.43	35.13	--	--
500	7.39	35.12	--	--
1000	4.26	34.98	--	--

Station No.	3-123	Date - GMT	27 OCT 88
Station Name	M883-123	Time - GMT	0114
Latitude	2.50.4 S	Date - LOC	26 OCT 88
Longitude	86.42.4 W	Time - LOC	2014

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	19.14	35.18	0.48	0.09
20	16.72	35.37	0.53	0.37
40	16.15	35.41	0.36	0.37
60	15.11	35.47	0.24	0.15
80	14.13	35.47	0.08	0.11
100	13.71	35.47	0.03	0.07
125	13.38	35.42	0.02	0.06
150	13.07	35.40	0.01	0.04
250	11.42	35.31	--	--
350	9.27	35.13	--	--
500	7.47	35.05	--	--
1000	4.02	34.97	--	--

Station No.	3-124	Date - GMT	27 OCT 88
Station Name	M883-124	Time - GMT	1040
Latitude	2.47.7 S	Date - LOC	27 OCT 88
Longitude	85.30.2 W	Time - LOC	0540

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	18.60	35.26	0.61	0.03
20	17.50	35.33	1.35	0.23
40	15.86	34.36	0.45	0.38
60	14.00	35.41	0.20	0.15
80	13.62	35.40	0.02	0.08
100	13.53	35.36	0.02	0.08
125	14.29	34.62	0.02	0.06
150	13.58	34.98	0.01	0.06
250	12.84	34.24	--	--
350	10.72	33.97	--	--
500	8.47	34.66	--	--
1000	4.01	34.99	--	--

Station No.	3-125	Date - GMT	28 OCT 88
Station Name	M883-125	Time - GMT	0116
Latitude	4.10.2 S	Date - LOC	27 OCT 88
Longitude	84.39.4 W	Time - LOC	2016

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	17.94	35.29	0.76	0.20
20	15.35	34.94	0.83	0.36
40	14.20	35.25	0.21	0.16
60	13.78	35.32	0.08	0.07
80	13.66	35.22	0.02	0.06
100	13.46	35.22	0.02	0.05
125	13.24	--	0.02	0.04
150	12.91	35.36	0.02	0.05
250	11.40	--	--	--
350	9.69	35.16	--	--
500	7.96	35.07	--	--
1000	4.17	34.98	--	--

Station No.	3-126	Date - GMT	28 OCT 88
Station Name	M883-126	Time - GMT	1010
Latitude	4.59.9 S	Date - LOC	28 OCT 88
Longitude	84.17.1 W	Time - LOC	0510

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	18.26	35.00	1.49	0.23
20	16.50	35.46	1.25	0.40
40	15.20	35.44	0.65	0.25
60	14.77	35.41	0.22	0.23
80	14.17	35.42	0.06	0.44
100	13.93	35.43	0.05	0.54
125	13.49	35.42	0.03	0.60
150	13.28	35.40	0.05	0.39
250	11.14	35.26	--	--
350	9.71	35.18	--	--
500	7.85	35.07	--	--
1000	4.08	34.96	--	--

Station No.	3-127	Date - GMT	29 OCT 88
Station Name	M883-127	Time - GMT	0109
Latitude	6.46.3 S	Date - LOC	28 OCT 88
Longitude	83. 6.6 W	Time - LOC	2009

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	18.34	--	0.50	0.12
20	18.19	--	0.53	0.09
40	18.06	--	0.57	0.22
60	16.79	--	0.52	0.31
80	15.10	--	0.27	0.19
100	14.04	--	0.10	0.19
125	13.57	--	0.05	0.08
150	12.80	--	0.03	0.24
250	11.58	--	--	--
350	10.05	--	--	--
500	7.41	--	--	--
1000	3.86	--	--	--

Station No.	3-128	Date - GMT	29 OCT 88
Station Name	M883-128	Time - GMT	1014
Latitude	7.47.8 S	Date - LOC	29 OCT 88
Longitude	82.33.3 W	Time - LOC	0514

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	18.34	--	0.43	0.16
20	18.37	--	0.53	0.18
40	18.90	--	0.54	0.30
60	14.29	--	0.15	0.67
80	13.80	--	0.12	0.30
100	13.40	--	0.05	0.13
125	13.09	--	0.03	0.08
150	12.82	--	0.00	0.07
250	11.82	--	--	--
350	9.85	--	--	--
500	7.63	--	--	--
1000	4.24	--	--	--

Station No.	3-129	Date - GMT	30 OCT 88
Station Name	M883-129	Time - GMT	0117
Latitude	9.14.3 S	Date - LOC	29 OCT 88
Longitude	83.29.4 W	Time - LOC	2017

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	18.39	--	0.87	0.14
20	18.30	--	0.95	0.19
40	16.53	--	0.33	0.17
60	14.02	--	0.09	0.75
80	13.75	--	0.04	0.15
100	13.29	--	0.01	0.10
125	13.04	--	0.01	0.08
150	12.73	--	0.01	0.08
250	11.51	--	--	--
350	9.98	--	--	--
500	7.74	--	--	--
1000	3.92	--	--	--

Station No.	3-130	Date - GMT	30 OCT 88
Station Name	M883-130	Time - GMT	1009
Latitude	9.56.4 S	Date - LOC	30 OCT 88
Longitude	84.34.2 W	Time - LOC	0509

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	18.39	--	0.44	0.03
20	18.50	--	0.57	0.05
40	17.52	--	1.00	0.12
60	16.21	--	0.16	0.10
80	13.82	--	0.05	0.08
100	13.33	--	0.04	0.76
125	12.64	--	--	--
150	12.24	--	0.00	0.07
250	11.09	--	--	--
350	9.74	--	--	--
500	7.34	--	--	--
1000	4.06	--	--	--

Station No.	3-131	Date - GMT	31 OCT 88
Station Name	M883-131	Time - GMT	0124
Latitude	10.56.8 S	Date - LOC	30 OCT 88
Longitude	84.38.8 W	Time - LOC	2024

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	18.36	--	0.53	0.01
20	18.34	--	0.81	0.06
40	17.35	--	1.48	0.22
60	14.31	--	0.23	0.26
80	13.44	--	0.03	0.30
100	12.89	--	0.01	0.10
125	12.55	--	0.02	0.06
150	12.16	--	0.02	0.09
250	11.07	--	--	--
350	9.63	--	--	--
500	7.59	--	--	--
1000	4.06	--	--	--

Station No.	3-132	Date - GMT	31 OCT 88
Station Name	M883-132	Time - GMT	1012
Latitude	11. 7.1 S	Date - LOC	31 OCT 88
Longitude	83.53.8 W	Time - LOC	0512

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	18.52	--	0.49	0.25
20	19.61	--	0.60	0.23
40	17.74	--	0.42	0.33
60	14.31	--	0.18	0.18
80	13.62	--	0.07	0.58
100	13.18	--	0.01	0.11
125	12.82	--	0.28	0.18
150	12.40	--	0.00	0.08
250	11.29	--	--	--
350	9.96	--	--	--
500	7.83	--	--	--
1000	4.13	--	--	--

Station No.	3-133	Date - GMT	01 NOV 88
Station Name	M883-133	Time - GMT	0119
Latitude	11.55.0 S	Date - LOC	31 OCT 88
Longitude	81.55.0 W	Time - LOC	2019

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	18.10	--	0.58	0.25
20	19.21	--	0.63	0.21
40	19.19	--	0.68	0.22
60	19.03	--	0.42	0.30
80	16.95	--	0.10	0.19
100	14.97	--	0.01	1.01
125	14.42	--	0.01	0.08
150	13.66	--	0.01	0.15
250	11.51	--	--	--
350	9.63	--	--	--
500	7.68	--	--	--
1000	5.21	--	--	--

Station No.	3-134	Date - GMT	01 NOV 88
Station Name	M883-134	Time - GMT	1023
Latitude	12. 3.4 S	Date - LOC	01 NOV 88
Longitude	80.57.6 W	Time - LOC	0523

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	18.06	--	0.30	0.18
20	19.10	--	0.37	0.19
40	19.23	--	0.36	0.18
60	18.57	--	0.39	0.13
80	16.95	--	0.10	0.08
100	14.93	--	0.03	0.23
125	12.89	--	0.01	0.10
150	12.38	--	0.01	0.14
250	10.91	--	--	--
350	9.25	--	--	--
500	7.18	--	--	--
1000	3.90	--	--	--

Station No.	4-135	Date - GMT	09 NOV 88
Station Name	M883-135	Time - GMT	0117
Latitude	11. 4.5 S	Date - LOC	08 NOV 88
Longitude	81.13.6 W	Time - LOC	2017

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	19.45	34.42	0.48	0.10
20	18.10	35.41	0.73	0.10
40	17.75	35.26	0.60	0.26
60	17.39	35.44	0.41	0.15
80	17.70	34.42	0.16	0.09
100	15.40	34.23	0.48	0.17
125	14.49	34.08	0.03	0.50
150	14.02	34.04	0.02	0.14
250	12.69	33.94	--	--
350	11.20	33.80	--	--
500	8.78	33.59	--	--
1000	5.26	33.45	--	--

Station No.	4-136	Date - GMT	09 NOV 88
Station Name	M884-136	Time - GMT	0951
Latitude	10.52.1 S	Date - LOC	09 NOV 88
Longitude	81.59.8 W	Time - LOC	0451

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	18.28	35.38	0.56	0.18
20	18.90	34.77	0.53	0.24
40	17.61	34.93	0.53	0.39
60	15.39	35.13	0.24	0.18
80	14.20	34.98	0.16	1.17
100	13.68	35.03	0.03	0.59
125	13.33	35.02	0.02	0.67
150	12.98	35.00	0.03	0.16
250	11.42	34.90	--	--
350	9.40	34.85	--	--
500	7.32	34.80	--	--
1000	4.24	34.75	--	--

Station No.	4-137	Date - GMT	10 NOV 88
Station Name	M884-137	Time - GMT	0119
Latitude	10.16.1 S	Date - LOC	09 NOV 88
Longitude	84.16.2 W	Time - LOC	2019

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	19.10	35.47	0.24	0.11
20	18.96	35.47	0.51	0.13
40	18.56	35.43	0.41	0.22
60	17.84	35.62	0.64	0.29
80	14.35	35.26	0.21	0.00
100	13.75	35.22	0.06	0.27
125	12.96	35.22	0.03	0.07
150	12.58	35.19	0.01	0.04
250	11.42	35.10	--	--
350	10.29	35.02	--	--
500	7.58	34.84	--	--
1000	3.86	34.77	--	--

Station No.	4-138	Date - GMT	10 NOV 88
Station Name	M884-138	Time - GMT	1014
Latitude	9.52.6 S	Date - LOC	10 NOV 88
Longitude	85. 7.5 W	Time - LOC	0514

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	19.01	35.46	0.16	0.07
20	18.97	35.44	0.16	0.05
40	18.19	35.54	0.99	0.05
60	16.82	35.49	0.29	0.15
80	14.33	35.29	0.12	0.28
100	13.38	35.24	0.10	0.19
125	12.86	35.21	0.02	0.09
150	12.47	35.17	0.00	0.07
250	11.38	35.10	--	--
350	10.00	35.04	--	--
500	7.38	34.84	--	--
1000	4.08	34.79	--	--

Station No.	4-139	Date - GMT	11 NOV 88
Station Name	M884-139	Time - GMT	0112
Latitude	9. 8.4 S	Date - LOC	10 NOV 88
Longitude	87.10.3 W	Time - LOC	2012

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.34	35.57	0.13	0.04
20	20.16	35.60	0.17	0.06
40	19.37	35.58	0.32	0.18
60	18.19	35.70	0.32	0.55
80	14.29	35.26	0.14	0.38
100	13.07	35.18	0.07	0.16
125	12.35	35.17	0.01	0.04
150	12.00	35.14	0.01	0.04
250	11.11	35.07	--	--
350	9.67	34.97	--	--
500	7.32	34.86	--	--
1000	3.99	34.76	--	--

Station No.	4-140	Date - GMT	11 NOV 88
Station Name	M884-140	Time - GMT	1017
Latitude	8.53.2 S	Date - LOC	11 NOV 88
Longitude	88. 5.2 W	Time - LOC	0517

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	19.67	35.54	0.17	0.12
20	19.65	35.52	0.17	0.09
40	19.25	35.52	0.34	0.17
60	17.83	35.63	0.36	0.53
80	14.60	35.28	0.24	0.41
100	13.95	35.28	0.12	0.42
125	12.69	35.20	0.04	0.10
150	12.11	35.15	0.01	0.07
250	10.84	35.10	--	--
350	9.63	34.99	--	--
500	7.48	34.86	--	--
1000	4.10	34.77	--	--

Station No.	4-141	Date - GMT	12 NOV 88
Station Name	M884-141	Time - GMT	0116
Latitude	8. 2.0 S	Date - LOC	11 NOV 88
Longitude	90. 9.3 W	Time - LOC	2016

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.65	35.46	0.22	0.00
20	20.56	35.42	0.20	0.15
40	20.80	35.19	0.23	0.15
60	20.48	35.03	0.38	0.53
80	15.77	35.35	0.19	0.66
100	13.89	35.27	0.07	0.24
125	12.69	35.18	0.02	0.04
150	12.15	35.18	0.01	0.03
250	11.11	35.09	--	--
350	9.80	35.01	--	--
500	7.52	34.88	--	--
1000	4.12	34.79	--	--

Station No.	4-142	Date - GMT	12 NOV 88
Station Name	M884-142	Time - GMT	1014
Latitude	7.49.0 S	Date - LOC	12 NOV 88
Longitude	91. 3.8 W	Time - LOC	0514

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.65	35.26	0.14	0.08
20	20.68	35.23	0.16	0.06
40	20.65	35.18	0.19	0.13
60	19.36	35.24	0.28	0.19
80	16.46	35.33	0.26	0.53
100	15.33	34.91	0.23	0.35
125	13.00	35.19	0.06	0.15
150	12.26	35.15	0.01	0.05
250	11.11	35.04	--	--
350	9.94	35.01	--	--
500	7.52	34.81	--	--
1000	4.01	34.76	--	--

Station No.	4-143	Date - GMT	13 NOV 88
Station Name	M884-143	Time - GMT	0111
Latitude	7.17.4 S	Date - LOC	12 NOV 88
Longitude	93.12.7 W	Time - LOC	2011

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	21.23	35.36	0.12	0.05
20	21.10	35.38	0.17	0.08
40	20.56	35.54	0.30	0.16
60	16.84	35.78	0.28	0.57
80	14.50	35.27	0.21	0.38
100	13.53	35.04	0.09	0.26
125	12.86	34.93	0.03	0.07
150	12.35	34.95	0.02	0.04
250	12.38	33.94	--	--
350	11.24	33.84	--	--
500	7.72	34.81	--	--
1000	4.04	34.73	--	--

Station No.	4-144	Date - GMT	13 NOV 88
Station Name	M884-144	Time - GMT	1049
Latitude	6.58.3 S	Date - LOC	13 NOV 88
Longitude	94.11.0 W	Time - LOC	0549

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	21.45	35.33	0.15	0.09
20	21.54	35.25	0.17	0.08
40	21.49	35.30	0.21	0.11
60	20.14	34.59	0.46	0.24
80	14.86	35.38	0.27	0.41
100	13.73	35.22	0.21	0.30
125	13.18	35.12	0.02	0.05
150	12.98	35.06	0.03	0.09
250	11.67	34.74	--	--
350	11.18	33.84	--	--
500	9.09	33.65	--	--
1000	4.13	34.73	--	--

Station No.	4-145	Date - GMT	14 NOV 88
Station Name	M884-145	Time - GMT	0121
Latitude	6.20.1 S	Date - LOC	13 NOV 88
Longitude	96. 9.4 W	Time - LOC	2021

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	21.72	35.30	0.14	0.05
20	21.67	35.24	0.17	0.05
40	21.21	35.38	0.22	0.11
60	17.95	35.26	0.30	0.20
80	14.99	35.37	0.22	0.44
100	13.58	35.31	0.09	0.31
125	12.49	35.20	0.02	0.11
150	11.96	35.17	0.00	0.04
250	10.98	35.08	--	--
350	9.62	35.01	--	--
500	7.28	34.86	--	--
1000	4.06	34.76	--	--

Station No.	4-146	Date - GMT	14 NOV 88
Station Name	M884-146	Time - GMT	1043
Latitude	6. 8.2 S	Date - LOC	14 NOV 88
Longitude	97.10.5 W	Time - LOC	0543

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	21.50	35.30	0.15	0.09
20	21.49	35.30	0.15	0.12
40	21.45	35.26	0.16	0.11
60	19.12	35.40	0.27	0.38
80	15.31	35.28	0.23	0.42
100	13.68	35.26	0.09	0.20
125	12.46	35.19	0.01	0.04
150	11.98	35.14	0.01	0.03
250	10.91	35.06	--	--
350	9.60	34.97	--	--
500	7.27	34.76	--	--
1000	4.10	34.75	--	--

Station No.	4-147	Date - GMT	15 NOV 88
Station Name	M884-147	Time - GMT	0141
Latitude	5.49.5 S	Date - LOC	14 NOV 88
Longitude	99.22.1 W	Time - LOC	2041

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	21.61	35.35	0.15	0.07
20	21.60	35.33	0.16	0.08
40	21.50	35.33	0.26	0.09
60	18.34	35.18	0.31	0.30
80	14.70	35.24	0.20	0.25
100	13.37	35.22	0.12	0.30
125	12.87	35.13	0.06	0.20
150	12.51	35.12	0.01	0.09
250	11.51	35.05	--	--
350	10.14	35.00	--	--
500	7.90	34.91	--	--
1000	3.95	34.77	--	--

Station No.	4-148	Date - GMT	15 NOV 88
Station Name	M884-148	Time - GMT	1118
Latitude	5.43.4 S	Date - LOC	15 NOV 88
Longitude	100.25.4 W	Time - LOC	0518

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	21.34	35.11	0.19	0.08
20	22.49	34.15	0.21	0.11
40	20.12	34.26	0.29	0.18
60	16.70	34.32	0.29	0.28
80	14.57	34.11	0.21	0.29
100	13.97	34.11	0.08	0.25
125	13.66	34.04	0.03	0.21
150	13.37	34.03	0.01	0.06
250	11.22	35.04	--	--
350	9.85	34.99	--	--
500	7.72	34.87	--	--
1000	4.08	34.77	--	--

Station No.	4-149	Date - GMT	16 NOV 88
Station Name	M884-149	Time - GMT	0218
Latitude	5.22.6 S	Date - LOC	15 NOV 88
Longitude	102.41.8 W	Time - LOC	2018

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	22.43	35.53	0.10	0.05
20	--	--	--	--
40	23.16	34.98	0.19	0.13
60	21.92	34.88	0.10	0.10
80	16.59	34.25	0.10	0.13
100	14.71	34.15	0.07	0.15
125	12.75	34.80	0.02	0.07
150	11.87	35.06	0.00	0.04
250	10.82	35.04	--	--
350	9.69	34.94	--	--
500	7.25	34.84	--	--
1000	3.99	34.78	--	--

Station No.	4-150	Date - GMT	16 NOV 88
Station Name	M884-150	Time - GMT	1112
Latitude	5.17.1 S	Date - LOC	16 NOV 88
Longitude	103.42.4 W	Time - LOC	0512

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	21.92	35.24	0.16	0.07
20	21.96	35.34	0.16	0.08
40	21.76	35.19	0.17	0.09
60	19.05	35.29	0.28	0.16
80	15.35	35.40	0.16	0.17
100	13.51	35.25	0.10	0.24
125	12.42	35.17	0.08	0.12
150	12.18	35.15	0.02	0.05
250	11.31	35.07	--	--
350	10.02	35.02	--	--
500	7.78	34.88	--	--
1000	4.01	34.76	--	--

Station No.	4-151	Date - GMT	17 NOV 88
Station Name	M884-151	Time - GMT	0212
Latitude	5. 5.8 S	Date - LOC	16 NOV 88
Longitude	106. 2.3 W	Time - LOC	2012

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	22.09	35.22	0.15	0.06
20	22.03	35.24	0.18	0.07
40	21.83	35.24	0.17	0.16
60	15.30	35.46	0.30	0.31
80	13.68	35.19	0.32	0.32
100	13.35	35.22	0.12	0.25
125	13.15	35.22	0.04	0.20
150	12.80	35.18	0.02	0.09
250	11.87	35.15	--	--
350	10.52	35.05	--	--
500	7.79	34.88	--	--
1000	3.92	34.75	--	--

Station No.	4-152	Date - GMT	17 NOV 88
Station Name	M884-152	Time - GMT	1148
Latitude	5. 9.9 S	Date - LOC	17 NOV 88
Longitude	107. 8.1 W	Time - LOC	0548

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	21.94	35.26	0.16	0.07
20	22.14	35.07	0.16	0.07
40	21.96	35.28	0.18	0.06
60	21.81	35.24	0.18	0.07
80	15.00	35.15	0.24	0.20
100	13.33	35.22	0.13	0.25
125	13.28	34.97	0.09	0.24
150	13.91	34.06	0.04	0.10
250	12.13	34.96	--	--
350	11.00	35.01	--	--
500	8.43	34.82	--	--
1000	4.12	34.76	--	--

Station No.	4-153	Date - GMT	18 NOV 88
Station Name	M884-153	Time - GMT	0217
Latitude	5. 4.6 S	Date - LOC	17 NOV 88
Longitude	109.19.2 W	Time - LOC	2017

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	21.67	35.17	0.12	0.05
20	21.60	35.19	0.16	0.05
40	20.59	35.28	0.35	0.11
60	15.19	35.26	0.28	0.28
80	13.24	35.25	0.23	0.26
100	13.00	35.20	0.16	0.22
125	12.73	35.20	0.08	0.09
150	12.46	35.18	0.01	0.03
250	11.94	35.14	--	--
350	10.76	35.07	--	--
500	8.30	34.93	--	--
1000	3.99	34.84	--	--

Station No.	4-154	Date - GMT	18 NOV 88
Station Name	M884-154	Time - GMT	1139
Latitude	4.58.8 S	Date - LOC	18 NOV 88
Longitude	109.59.6 W	Time - LOC	0539

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	21.58	34.91	0.17	0.08
20	21.41	35.00	0.17	0.09
40	18.65	34.93	0.24	0.13
60	15.64	34.19	0.36	0.14
80	13.28	35.03	0.23	0.32
100	13.04	35.03	0.18	0.22
125	12.82	34.96	0.04	0.06
150	13.66	34.05	0.03	0.03
250	11.91	35.06	--	--
350	10.45	34.99	--	--
500	7.74	34.83	--	--
1000	4.12	34.73	--	--

Station No.	4-155	Date - GMT	19 NOV 88
Station Name	M884-155	Time - GMT	0212
Latitude	4.28.4 S	Date - LOC	18 NOV 88
Longitude	111.40.4 W	Time - LOC	2012

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	22.78	34.20	0.12	0.04
20	21.36	35.14	0.16	0.05
40	17.41	35.65	0.27	0.15
60	14.09	35.24	0.31	0.15
80	13.15	35.14	0.18	0.29
100	12.86	35.10	0.08	0.27
125	12.69	34.92	0.01	0.03
150	13.58	34.01	0.01	0.04
250	13.07	33.98	--	--
350	11.65	33.88	--	--
500	8.91	33.64	--	--
1000	5.37	33.47	--	--

Station No.	4-156	Date - GMT	19 NOV 88
Station Name	M884-156	Time - GMT	1218
Latitude	4.13.3 S	Date - LOC	19 NOV 88
Longitude	112.48.2 W	Time - LOC	0518

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	21.74	35.23	0.16	0.07
20	22.40	34.67	0.16	0.08
40	18.59	35.50	0.33	0.31
60	14.90	34.58	0.31	0.23
80	14.57	34.11	0.25	0.18
100	13.16	34.96	0.16	0.23
125	12.87	34.98	0.13	0.10
150	12.84	34.80	0.01	0.04
250	13.00	33.96	--	--
350	10.45	34.93	--	--
500	7.79	34.77	--	--
1000	4.17	34.65	--	--

Station No.	4-157	Date - GMT	20 NOV 88
Station Name	M884-157	Time - GMT	0316
Latitude	3.23.4 S	Date - LOC	19 NOV 88
Longitude	114.48.6 W	Time - LOC	2016

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	22.18	35.05	0.13	0.05
20	22.05	35.11	0.15	0.06
40	22.58	--	0.18	0.13
60	14.53	35.16	0.40	0.41
80	13.58	35.04	0.31	0.68
100	13.58	34.66	0.07	0.22
125	13.00	34.89	0.02	0.05
150	12.93	34.82	0.01	0.03
250	12.16	34.87	--	--
350	10.38	34.95	--	--
500	7.70	34.85	--	--
1000	4.08	34.68	--	--

Station No.	4-158	Date - GMT	20 NOV 88
Station Name	M884-158	Time - GMT	1213
Latitude	3. 4.6 S	Date - LOC	20 NOV 88
Longitude	115.58.8 W	Time - LOC	0513

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	21.47	35.30	0.16	0.06
20	21.49	35.28	0.17	0.08
40	19.63	35.59	0.31	0.12
60	14.53	35.23	0.66	0.23
80	13.42	35.19	0.26	0.44
100	13.00	35.17	0.19	0.32
125	12.64	35.15	0.06	0.08
150	12.35	35.15	0.02	0.05
250	11.53	35.10	--	--
350	10.29	35.02	--	--
500	7.56	34.88	--	--
1000	4.17	34.78	--	--

Station No.	4-159	Date - GMT	21 NOV 88
Station Name	M884-159	Time - GMT	0342
Latitude	2.22.3 S	Date - LOC	20 NOV 88
Longitude	118.23.0 W	Time - LOC	2042

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	22.05	34.14	0.20	0.07
20	19.28	35.15	0.51	0.17
40	19.19	34.79	0.83	0.09
60	15.88	34.54	0.41	0.28
80	13.28	35.00	0.16	0.19
100	12.51	35.13	0.09	0.15
125	12.00	35.13	0.04	0.05
150	12.09	34.82	0.03	0.06
250	12.75	33.89	--	--
350	12.02	33.87	--	--
500	9.27	33.62	--	--
1000	5.54	33.43	--	--

Station No.	4-160	Date - GMT	21 NOV 88
Station Name	M884-160	Time - GMT	1250
Latitude	2.29.6 S	Date - LOC	21 NOV 88
Longitude	119.25.9 W	Time - LOC	0550

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.07	35.04	0.38	0.03
20	19.36	34.79	0.65	0.09
40	18.37	35.08	0.93	0.14
60	18.23	35.12	0.86	0.30
80	14.59	--	0.35	0.68
100	13.38	34.96	0.23	0.42
125	12.09	35.01	0.05	0.06
150	12.93	33.95	0.02	0.06
250	12.51	33.92	--	--
350	11.49	33.79	--	--
500	8.08	36.47	--	--
1000	4.46	--	--	--

Station No.	4-161	Date - GMT	22 NOV 88
Station Name	M884-161	Time - GMT	0318
Latitude	2.22.6 S	Date - LOC	21 NOV 88
Longitude	121.31.4 W	Time - LOC	2018

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	20.98	35.16	0.18	0.08
20	20.34	35.32	0.33	0.11
40	15.30	35.25	0.36	0.46
60	13.64	35.20	0.24	0.68
80	13.11	35.19	0.22	0.31
100	12.80	35.16	0.08	0.16
125	12.44	35.14	0.03	0.05
150	12.16	35.17	0.02	0.04
250	11.47	35.05	--	--
350	9.65	34.94	--	--
500	7.63	34.62	--	--
1000	4.17	34.69	--	--

Station No.	4-162	Date - GMT	22 NOV 88
Station Name	M884-162	Time - GMT	1243
Latitude	2.24.0 S	Date - LOC	22 NOV 88
Longitude	122.35.0 W	Time - LOC	0543

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	23.44	34.46	0.20	0.08
20	23.34	34.44	0.19	0.09
40	18.10	34.36	0.36	0.28
60	14.99	34.11	0.32	0.50
80	14.28	34.07	0.16	0.27
100	13.98	34.05	0.06	0.11
125	13.75	34.02	0.02	0.05
150	13.55	34.00	0.01	0.03
250	12.55	33.91	--	--
350	10.80	33.76	--	--
500	8.28	33.58	--	--
1000	5.37	33.47	--	--

Station No.	4-163	Date - GMT	23 NOV 88
Station Name	M884-163	Time - GMT	0313
Latitude	2. 3.5 S	Date - LOC	22 NOV 88
Longitude	125. 5.2 W	Time - LOC	2013

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	23.23	35.28	--	--
20	23.05	35.31	0.19	0.09
40	21.85	35.11	0.35	0.11
60	15.82	35.14	0.42	0.54
80	13.84	35.08	0.21	0.44
100	13.20	35.13	0.08	0.22
125	12.86	35.13	0.03	0.08
150	12.53	35.12	0.01	0.03
250	11.53	35.05	--	--
350	9.80	34.94	--	--
500	8.49	33.58	--	--
1000	4.22	34.49	--	--

Station No.	4-164	Date - GMT	23 NOV 88
Station Name	M884-164	Time - GMT	1319
Latitude	2. 8.6 S	Date - LOC	23 NOV 88
Longitude	126.28.9 W	Time - LOC	0519

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	22.80	35.38	0.18	0.08
20	22.63	35.33	0.21	0.10
40	22.00	35.29	0.29	0.10
60	18.04	35.25	0.50	0.47
80	14.48	35.27	0.23	0.48
100	13.46	35.25	0.18	0.27
125	12.95	35.17	0.09	0.09
150	12.67	35.19	0.02	0.05
250	11.47	35.12	--	--
350	10.18	35.02	--	--
500	7.83	34.87	--	--
1000	3.99	34.78	--	--

Station No.	4-165	Date - GMT	24 NOV 88
Station Name	M884-165	Time - GMT	0416
Latitude	1.51.9 S	Date - LOC	23 NOV 88
Longitude	127.40.5 W	Time - LOC	2016

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	23.54	34.35	0.15	0.12
20	22.20	35.28	0.24	0.11
40	21.98	35.23	0.31	0.16
60	20.83	34.26	0.39	0.46
80	14.71	35.18	0.18	0.24
100	13.51	35.22	0.11	0.18
125	12.76	35.13	0.05	0.09
150	11.87	35.12	0.02	0.03
250	11.04	34.99	--	--
350	10.43	35.00	--	--
500	7.81	34.83	--	--
1000	4.35	34.58	--	--

Station No.	4-166	Date - GMT	24 NOV 88
Station Name	M884-166	Time - GMT	1316
Latitude	1.28.6 S	Date - LOC	24 NOV 88
Longitude	127. 5.9 W	Time - LOC	0516

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	22.67	34.91	0.15	0.12
20	23.29	34.37	0.18	0.13
40	22.47	34.35	0.28	0.13
60	18.10	34.41	0.36	0.53
80	15.02	35.10	0.18	0.36
100	14.35	34.79	0.11	0.23
125	13.62	34.02	0.03	0.05
150	13.33	33.97	0.02	0.04
250	12.36	33.88	--	--
350	11.13	34.21	--	--
500	8.83	33.62	--	--
1000	4.30	34.62	--	--

Station No.	4-167	Date - GMT	25 NOV 88
Station Name	M884-167	Time - GMT	0421
Latitude	0.34.9 S	Date - LOC	24 NOV 88
Longitude	125.19.6 W	Time - LOC	2021

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	19.90	34.22	0.51	0.16
20	18.45	34.97	0.66	0.35
40	17.14	35.24	0.44	0.35
60	15.06	35.30	0.17	0.16
80	13.98	35.21	0.04	0.05
100	13.11	35.23	0.03	0.04
125	12.76	35.06	0.01	0.03
150	12.33	35.01	0.02	0.03
250	12.56	33.91	--	--
350	11.31	33.81	--	--
500	8.76	33.59	--	--
1000	4.22	34.62	--	--

Station No.	4-168	Date - GMT	25 NOV 88
Station Name	M884-168	Time - GMT	1324
Latitude	0. 9.4 S	Date - LOC	25 NOV 88
Longitude	124.17.0 W	Time - LOC	0524

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	19.10	34.09	0.80	0.12
20	17.61	35.08	0.93	0.16
40	16.52	35.10	0.69	0.27
60	14.79	35.04	0.33	0.20
80	13.80	35.20	0.08	0.05
100	13.38	34.93	0.03	0.03
125	12.20	--	0.41	0.19
150	12.07	--	0.01	0.03
250	11.31	--	--	--
350	9.74	--	--	--
500	7.43	34.82	--	--
1000	4.48	34.46	--	--

Station No.	4-169	Date - GMT	26 NOV 88
Station Name	M884-169	Time - GMT	0416
Latitude	1.33.6 N	Date - LOC	25 NOV 88
Longitude	124.41.4 W	Time - LOC	2016

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	21.30	34.70	0.28	0.10
20	20.48	34.87	0.38	0.09
40	18.54	34.95	0.50	0.32
60	17.01	35.07	0.40	0.39
80	13.88	35.15	0.25	0.54
100	13.58	35.18	0.19	0.35
125	13.22	35.18	0.10	0.20
150	12.53	35.44	0.01	0.04
250	11.34	35.02	--	--
350	9.38	34.90	--	--
500	7.68	34.83	--	--
1000	4.54	34.48	--	--

Station No.	4-170	Date - GMT	26 NOV 88
Station Name	M884-170	Time - GMT	1312
Latitude	3. 4.4 N	Date - LOC	26 NOV 88
Longitude	123.18.5 W	Time - LOC	0512

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.33	33.55	0.19	0.09
20	23.22	35.58	0.19	0.08
40	22.78	34.66	0.34	0.19
60	23.23	34.05	0.46	0.22
80	18.70	35.19	0.31	0.37
100	15.51	34.77	0.25	0.28
125	13.40	35.09	0.10	0.17
150	12.67	--	0.01	0.04
250	12.29	33.79	--	--
350	10.82	33.75	--	--
500	7.54	--	--	--
1000	5.55	34.47	--	--

Station No.	4-171	Date - GMT	27 NOV 88
Station Name	M884-171	Time - GMT	0412
Latitude	4.43.4 N	Date - LOC	26 NOV 88
Longitude	124.20.6 W	Time - LOC	2012

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.04	34.62	0.16	0.07
20	24.87	34.42	0.19	0.12
40	24.45	34.41	0.25	0.11
60	23.89	34.33	0.23	0.13
80	23.38	34.37	0.20	0.11
100	23.98	33.66	0.14	0.16
125	21.78	33.90	0.12	0.08
150	18.54	34.94	0.06	0.13
250	10.60	34.92	--	--
350	9.47	34.76	--	--
500	8.18	34.51	--	--
1000	5.50	33.46	--	--

Station No.	4-172	Date - GMT	27 NOV 88
Station Name	M884-172	Time - GMT	1320
Latitude	5.58.0 N	Date - LOC	27 NOV 88
Longitude	124.21.8 W	Time - LOC	0520

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.35	33.47	0.27	0.04
20	23.94	34.30	0.28	0.05
40	23.62	34.37	0.32	0.11
60	23.44	34.39	0.28	0.13
80	22.51	34.53	0.22	0.15
100	22.38	34.57	0.19	0.17
125	22.02	34.60	0.12	0.18
150	21.49	34.70	0.17	0.22
250	11.62	35.05	--	--
350	9.82	34.94	--	--
500	8.38	34.86	--	--
1000	4.37	34.69	--	--

Station No.	4-173	Date - GMT	28 NOV 88
Station Name	M884-173	Time - GMT	0323
Latitude	7.32.5 N	Date - LOC	27 NOV 88
Longitude	123.57.4 W	Time - LOC	1923

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.24	34.86	0.17	0.05
20	27.44	33.96	0.20	0.08
40	26.31	34.79	0.20	0.12
60	27.40	33.97	0.23	0.10
80	25.49	34.65	0.38	0.32
100	22.22	34.96	0.26	0.44
125	19.98	34.06	0.13	0.28
150	15.55	33.87	0.05	0.08
250	11.76	33.79	--	--
350	10.87	33.75	--	--
500	8.40	34.71	--	--
1000	4.35	34.69	--	--

Station No.	4-174	Date - GMT	28 NOV 88
Station Name	M884-174	Time - GMT	1314
Latitude	8.51.0 N	Date - LOC	28 NOV 88
Longitude	123.33.1 W	Time - LOC	0514

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	26.21	34.25	0.24	0.05
20	26.53	34.14	0.21	0.09
40	24.47	34.76	0.38	0.17
60	20.58	34.90	0.29	0.17
80	15.55	34.54	0.26	0.25
100	13.97	34.70	0.17	0.27
125	12.42	34.71	0.10	0.18
150	12.04	34.75	0.05	0.07
250	10.47	34.67	--	--
350	9.50	34.63	--	--
500	7.65	34.49	--	--
1000	5.32	33.46	--	--

Station No.	4-175	Date - GMT	29 NOV 88
Station Name	M884-175	Time - GMT	0326
Latitude	10.45.4 N	Date - LOC	28 NOV 88
Longitude	123.16.6 W	Time - LOC	1926

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.24	33.09	0.23	0.07
20	22.89	33.64	0.32	0.14
40	17.95	33.72	0.47	0.50
60	15.15	33.38	0.26	0.37
80	14.44	33.84	0.03	0.33
100	13.73	33.94	0.03	0.57
125	13.11	33.88	0.01	0.22
150	12.58	33.85	0.01	0.14
250	11.00	33.73	--	--
350	9.69	33.61	--	--
500	7.88	33.49	--	--
1000	5.03	33.46	--	--

Station No.	4-176	Date - GMT	29 NOV 88
Station Name	M884-176	Time - GMT	1317
Latitude	12. 7.7 N	Date - LOC	29 NOV 88
Longitude	122.59.3 W	Time - LOC	0517

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.76	33.56	0.23	0.08
20	25.98	32.71	0.24	0.10
40	21.21	33.46	0.36	0.29
60	16.46	33.49	0.29	0.35
80	15.19	33.67	0.11	0.20
100	13.11	34.90	0.03	0.46
125	11.94	34.83	0.00	0.13
150	11.24	34.79	0.01	0.07
250	10.42	33.66	--	--
350	9.40	33.57	--	--
500	7.47	33.49	--	--
1000	3.88	34.49	--	--

Station No.	4-177	Date - GMT	30 NOV 88
Station Name	M884-177	Time - GMT	0316
Latitude	13.58.9 N	Date - LOC	29 NOV 88
Longitude	122.26.4 W	Time - LOC	1916

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.35	33.79	0.20	0.07
20	25.22	34.14	0.21	0.11
40	24.04	34.91	0.33	0.12
60	19.96	34.60	0.32	0.46
80	16.72	34.56	0.22	0.56
100	13.13	34.33	0.09	0.28
125	13.07	33.56	0.04	0.07
150	12.82	33.66	0.01	0.03
250	11.16	33.70	--	--
350	9.69	33.58	--	--
500	7.83	33.49	--	--
1000	5.03	33.44	--	--

Station No.	4-178	Date - GMT	30 NOV 88
Station Name	M884-178	Time - GMT	1310
Latitude	15.18.2 N	Date - LOC	30 NOV 88
Longitude	122.11.4 W	Time - LOC	0510

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	25.26	34.50	0.11	0.03
20	26.24	33.76	0.12	0.02
40	--	--	0.13	0.03
60	24.36	33.83	0.18	0.08
80	20.38	33.62	0.28	0.13
100	16.79	33.65	0.38	0.28
125	12.91	34.09	0.09	0.20
150	11.65	34.65	0.02	0.03
250	10.43	--	--	--
350	9.03	34.70	--	--
500	6.77	34.67	--	--
1000	3.92	34.63	--	--

Station No.	4-179	Date - GMT	01 DEC 88
Station Name	M884-179	Time - GMT	0311
Latitude	17.19.5 N	Date - LOC	30 NOV 88
Longitude	121.45.3 W	Time - LOC	1911

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.44	34.66	0.12	0.03
20	25.55	33.82	0.12	0.03
40	25.51	33.91	0.15	0.04
60	22.94	34.08	0.29	0.13
80	19.68	33.35	0.32	0.34
100	17.70	33.21	0.15	0.32
125	15.00	33.37	0.05	0.14
150	13.22	33.43	0.02	0.07
250	11.74	33.70	--	--
350	10.02	34.57	--	--
500	7.16	34.53	--	--
1000	5.15	34.45	--	--

Station No.	4-180	Date - GMT	01 DEC 88
Station Name	M884-180	Time - GMT	1322
Latitude	18.42.7 N	Date - LOC	01 DEC 88
Longitude	121.27.4 W	Time - LOC	0522

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	24.40	34.04	0.15	0.01
20	24.44	--	0.16	0.02
40	24.44	34.02	0.18	0.03
60	24.44	34.02	0.18	0.03
80	21.49	33.59	0.46	0.39
100	18.94	34.34	0.30	0.24
125	15.75	34.27	0.09	0.17
150	13.31	34.02	0.03	0.07
250	11.13	34.42	--	--
350	9.67	34.33	--	--
500	7.70	34.13	--	--
1000	5.24	33.44	--	--

Station No.	4-181		Date - GMT	02 DEC 88
Station Name	M884-181		Time - GMT	0315
Latitude	20.21.5 N		Date - LOC	01 DEC 88
Longitude	120.38.3 W		Time - LOC	1915

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	23.51	34.97	0.11	0.02
20	23.44	--	0.14	0.03
40	22.85	33.94	0.11	0.02
60	22.51	--	0.12	0.03
80	20.34	33.42	0.28	0.13
100	18.90	33.39	0.18	0.24
125	15.73	34.17	0.11	0.27
150	13.26	34.19	0.04	0.13
250	11.40	33.53	--	--
350	8.56	34.55	--	--
500	8.14	33.41	--	--
1000	5.17	33.43	--	--

Station No.	4-182		Date - GMT	02 DEC 88
Station Name	M884-182		Time - GMT	1312
Latitude	21.33.5 N		Date - LOC	02 DEC 88
Longitude	119.53.9 W		Time - LOC	0512

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	22.12	33.78	0.08	0.02
20	22.20	--	0.12	0.01
40	22.20	33.83	0.17	0.03
60	22.01	34.58	0.20	0.06
80	19.59	33.33	0.29	0.12
100	18.46	33.49	0.23	0.21
125	17.95	33.59	0.18	0.18
150	14.51	33.03	0.12	0.12
250	11.25	33.44	--	--
350	9.40	33.30	--	--
500	7.99	33.42	--	--
1000	5.10	--	--	--

Station No.	4-183	Date - GMT	03 DEC 88
Station Name	M884-183	Time - GMT	0319
Latitude	22.45.2 N	Date - LOC	02 DEC 88
Longitude	119. 1.5 W	Time - LOC	1919

Depth (m)	Temp (deg C)	Salinity (ppt)	Chloro (mg/m3)	Phaeo (mg/m3)
0	23.00	33.79	0.08	0.02
20	21.47	34.55	0.10	0.01
40	21.34	34.69	0.11	0.01
60	20.90	34.67	0.17	0.03
80	17.48	34.05	0.20	0.15
100	16.33	34.43	0.24	0.27
125	14.93	33.06	0.11	0.24
150	12.76	32.89	0.04	0.11
250	9.82	33.21	--	--
350	9.34	--	--	--
500	8.10	35.40	--	--
1000	5.06	33.41	--	--

APPENDIX B

SCIENTIFIC PERSONNEL

Cruise Leaders	Leg
Rennie Holt, SWFC	1
Steve Reilly, SWFC	2
Andrew Dizon, SWFC	3
Douglas DeMaster,SWFC	4
Environmental Data Collection	
Julie Ellingson, NOAA ship McArthur	1-4
Paul Fiedler, SWFC	1
Seth Strickland, NOAA ship McArthur	1-4
Seabird Observers	
Karen Bluth, Contractor	1
John Gill,Contractor	1
James Caretta, Contractor	2
Michelle Roest, Contractor	2-3
Robert Pitman, SWFC	3-4
Lisa Ballance, SWFC	4
Marine Mammal Identification experts	
Michael Newcomer, SWFC	1-2
Scott Sinclair, SWFC	1-2
Rick LeDuc, SWFC	3-4
Marc Webber, SWFC	3-4
Marine Mammal Observers	
Sallie Beavers, SWFC	1-2
William Irwin, SWFC	1-2
Keith Rittmaster, SWFC	1-2
Victoria Thayer, SWFC	1-2
Scott Benson, SWFC	3-4
Carrie Fried, SWFC	3-4
Joseph Raffetto, SWFC	3-4
David Skordal, SWFC	3-4

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L.J. LIERHEIMER, P.C. FIEDLER, S.B. REILLY, R.L. PITMAN, L.T. BALLANCE, G.G. THOMAS and D.W. BEHRINGER
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