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SUMMARY OF SEABIRD, MARINE TURTLE, AND SURFACE FAUNA DATA COLLECTED DURING A SURVEY IN THE EASTERN TROPICAL PACIFIC OCEAN JULY 28 - DECEMBER 9, 1999

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

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INTRODUCTION

In 1997, with the passage of the International Dolphin Conservation Program Act (Public Law 105-42), Congress directed the National Marine Fisheries Service to determine if the tuna purse-seine fishery in the eastern tropical Pacific (ETP) is having a significant adverse impact on depleted dolphin stocks. To aid in this determination, Congress mandated that dolphin population surveys be undertaken in each of the calendar years 1998, 1999, and 2000. The primary objective of these surveys was to estimate the absolute abundance of the dolphin populations, while the secondary objective was to collect additional data in order to characterize biological and physical features of the ETP pelagic ecosystem.

The Southwest Fisheries Science Center (SWFSC) conducted the second of the surveys, known as *Stenella* Abundance Research (STAR99), from July - December 1999. This report summarizes procedures used and data collected for seabirds, sea turtles, flyingfish, and marine insects in the ETP during the 1999 survey. Separate reports summarize the marine mammal data (Kinzey *et al.* 2000) and the oceanographic data (Philbrick *et al.* in prep) obtained during the same survey. Data on seabirds, sea turtles, flyingfish, and marine insects collected during the first survey, in 1998, are reported in Olson *et al.* (2000). The 1999 survey was conducted using two research vessels: the NOAA Ship *McArthur* and the NOAA Ship *David Starr Jordan* (hereafter referred to as the *Jordan*).

Data on seabirds, marine turtles, and surface fauna have been collected during dolphin surveys conducted by SWFSC in the ETP since the mid-1970's. Among other things, these data have been used to investigate cetacean habitat relationships (Au and Perryman 1985), seabird foraging (Au and Pitman 1986, Pitman and Ballance 1990, 1992; Pitman 1993) and community ecology (Ballance *et al.* 1997), and marine turtle abundance (Beavers and Ramsey 1998). For an expanded bibliography, see <<<http://swfsc.nmfs.noaa.gov/mmd/ecology/ecology.html>>>.

OBJECTIVES

Data on seabirds, marine turtles, and surface fauna, sampled concurrently with the dolphin sighting survey, will aid in understanding the ETP ecosystem and how variation within the system may affect the distribution and abundance of dolphins.

STUDY AREA AND ITINERARY

The study area extended from 33°N to 18°S and from the continental shores of the Americas to 153°W. Tracklines were designed to systematically sample the study area using line-transect methods to estimate dolphin abundance (Figures 1 and 2).

The survey was conducted from July 28 to December 9, 1999. It was composed of five legs on the *McArthur* and six legs on the *Jordan*. Survey legs varied between 19 and 29 days in length, separated by 4 to 8 days in port. Equipment repairs and a medical emergency on the *Jordan* necessitated an unscheduled stop in Puerto Ayora, Ecuador. Itineraries are listed below. Scientific personnel are listed in Appendix 1.

NOAA Ship *McArthur*:

	28 JUL	Depart San Diego, CA
28 JUL - 26 AUG		Leg I
26 AUG - 01 SEP		Honolulu, Hawaii
01 SEP - 29 SEP		Leg II
29 SEP - 05 OCT		Puntarenas, Costa Rica
05 OCT - 23 OCT		Leg III
23 OCT - 27 OCT		Acapulco, Mexico
27 OCT - 17 NOV		Leg IV
17 NOV - 21 NOV		Manzanillo, Mexico
21 NOV - 09 DEC		Leg V
09 DEC		Arrive San Diego, CA

NOAA Ship *David Starr Jordan*:

	28 JUL	Depart San Diego, CA
28 JUL - 16 AUG		Leg I
16 AUG - 20 AUG		Manzanillo, Mexico
20 AUG - 09 SEP		Leg II
09 SEP - 13 SEP		Acapulco, Mexico
13 SEP - 01 OCT		Leg III
01 OCT - 08 OCT		Puntarenas, Costa Rica
08 OCT - 13 OCT		Leg IVa
13 OCT - 18 OCT		Puerto Ayora, Ecuador
18 OCT - 28 OCT		Leg IVb
28 OCT - 01 NOV		Callao, Peru
01 NOV - 15 NOV		Leg V
15 NOV - 19 NOV		Panama City, Panama
19 NOV - 09 SEP		Leg VI
09 DEC		Arrive San Diego, CA

METHODS

Seabirds

A seabird census was conducted using standard 300-meter strip-transect methods and hand-held binoculars. Bird observers stood shifts on the flying bridge throughout daylight hours when the ship was underway, weather permitting. Species identification, number, and behavior of birds were recorded, as well as association with marine mammals, fish, or flotsam.

A separate census of feeding flocks was conducted using modified strip-transect methods. Mammal observers using 25X binoculars to detect marine mammals reported the presence of all feeding flocks out to 4.5 kilometers (one binocular reticle). Seabird observers then quantified flock size and species composition.

Sea Turtles

Sightings of sea turtles by mammal and seabird observers were recorded in the marine mammal data file. Sightings were made with 25X binoculars, hand-held binoculars, and unaided eye. Species identification, number, approximate size, and association with flotsam were recorded.

Live turtles were captured opportunistically for biological sampling. Turtles were caught by hand or net from an inflatable boat deployed from the ship. Behavior at the time of capture was noted. Captured turtles were measured, weighed, and flipper-tagged. Blood samples for genetic and hormonal studies were collected. On the *Jordan*, ultrasound scans were performed on female turtles using a portable scanner. Satellite tags were attached to some turtles to track movements and to determine dive patterns. All turtles were subsequently released unharmed.

Flyingfish

A visual survey for flyingfish was conducted using modified strip-transect methods. The survey was conducted by the seabird observers, concurrently with the survey for seabirds. All flyingfish flushed by the ship within a distance of 100 meters were recorded.

Surface organisms were collected every evening during a one-hour dipnet station to collect information on the relative abundance and distribution of flyingfish. The station began approximately one hour after sunset. One or two 500-watt lamps were suspended over the side of the ship to attract animals and two persons using long-handled nets collected them. Occasionally a dipnet station would also be conducted in the morning one or two hours before sunrise. Information recorded during these stations included species observed, relative abundance, and environmental data (e.g. sea surface temperature and salinity, Beaufort state, and moon phase).

Marine Insects

Sea striders (*Halobates* spp.) were collected opportunistically during the dipnet stations using a long-handled net.

During Leg 4 on the *McArthur*, collaborating scientist Dr. Lanna Cheng conducted on-board experiments to test the effect of temperature on the survival of *Halobates* adults and on the incubation period of *Halobates* eggs. The adults and eggs were kept in small aquaria at 4 different temperatures: Ambient (26-30°C); Laboratory (20-25°C); Cold-room (10-15°C); and Refrigerator (4-5°C). Adults were fed freeze-dried *Drosophila* daily.

RESULTS

Seabirds

A total of 1,816.8 hours during 221 sea days was spent on-effort for the seabird survey conducted from the two ships. During this time a total of 100 identified species were recorded from the *Jordan* (Table 1) and the *McArthur* (Table 2).

Abundance of seabirds varied by ship and leg (Tables 1 and 2). The most abundant seabirds were represented by the families Procellariidae (especially Juan Fernandez Petrels and Wedge-tailed Shearwaters) and Sternidae (predominantly Sooty Terns). Species belonging to the genera *Oceanodroma* and *Sula* were also abundant.

Sea Turtles

The combined total of sea turtles sighted from the *Jordan* and the *McArthur* was 1,101. This included 649 *Lepidochelys olivacea* (olive ridley), 28 *Caretta caretta* (loggerhead), 1 *Chelonia mydas* (green), 415 unidentified hardshell turtles (family Cheloniidae), and 8 unidentified turtles. Figures 3, 4, and 5 illustrate the distribution of sea turtle sightings in the study area. *Lepidochelys olivacea* were sighted throughout the area; *Caretta caretta* were seen off the west coast of Baja California; and a single *Chelonia mydas* was seen in the waters between the Galápagos Islands and mainland Ecuador. The partial remains of a dead *Dermochelys coriacea* (leatherback) were seen just off the southern Mexican coast on October 22.

A total of 174 *Lepidochelys olivacea* and 15 *Caretta caretta* were captured, sampled, and released. Blood samples were collected from, and flipper tags were attached to, 188 turtles. A skin sample was collected from the dead *Dermochelys coriacea*.

Satellite tags were placed on 10 turtles (Table 3). Satellite transmitters (Telonics ST-18) recording location were attached to 2 *Caretta caretta*. Satellite transmitters (Wildlife Computers SDRT10) recording dive data and location were attached to 8 *Lepidochelys olivacea*. Three of these were females that were mating at the time of capture. Two were tracked to the vicinity of nesting beaches and a third was later confirmed nesting in Ostional,

Costa Rica by researchers there. Additional behavioral and satellite tag data on reproductive *Lepidochelys olivacea* that were captured in 1999 and 1998 are reported in Kopitsky, Pitman, and Dutton (in press).

Flyingfish

Over 90,000 flyingfish were sighted from the *Jordan* and the *McArthur* (Tables 4 and 5). Flyingfish of four genera were recorded, the most abundant represented by *Exocoetus*.

The locations of the 260 dipnet stations for the *Jordan* and the *McArthur* are shown in Figures 6 and 7, respectively. A total of 2,161 flyingfish were collected. Data and specimens collected during the stations are given in Tables 6 (*Jordan*) and 7 (*McArthur*).

Marine Insects

A total of 6,182 individual *Halobates* was collected at 187 of the 259 dipnet stations. Locations are shown in Figures 8 - 11. Four species were collected (Table 8). *H. sobrinus* and *H. micans* were the two most abundant species. *H. sobrinus* were collected primarily in coastal waters and *H. micans* were found primarily offshore in the North Equatorial Countercurrent.

The survival rate of *Halobates* adults in the on-board experiment during Leg 4 of the *McArthur* varied depending on the temperature of the aquarium. Insects in the Ambient and Laboratory aquaria survived up to 8 days; those in the Cold-room aquarium survived up to 24 hours; and the ones in the Refrigerator aquarium survived 2 - 4 hours. The incubation period of *Halobates* eggs also varied by temperature. Eggs kept in Ambient temperature hatched in 8 - 10 days. None of the eggs in the other temperatures hatched after 20 days, when the experiment was terminated at the end of Leg 4.

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Table 1. Identity and numbers of seabirds recorded from the Jordan, 28 July - 9 December 1999.

Common Name	Scientific Name	Leg I	Leg II	Leg III	Leg IV	Leg V	Leg VI	Total
Juan Fernandez Petrel	<i>Pterodroma externa</i>	0	4349	914	2	1	0	5266
Sooty Tern	<i>Sterna fuscata</i>	17	2397	8	0	666	443	3531
Black Storm-petrel	<i>Oceanodroma melania</i>	2633	3	21	141	24	6	2828
Sooty Shearwater	<i>Puffinus griseus</i>	2319	0	0	6	26	69	2420
Wedge-tailed Shearwater (light morph)	<i>Puffinus pacificus</i>	4	272	217	8	268	1575	2344
Brown Booby	<i>Sula leucogaster</i>	1129	687	83	97	56	219	2271
Wedge-tailed Shearwater (dark morph)	<i>Puffinus pacificus</i>	1	2067	45	0	17	53	2183
Wedge-rumped (Galapagos) Storm-petrel	<i>Oceanodroma tethys</i>	658	92	303	186	297	60	1596
Black Tern	<i>Chlidonias niger</i>	412	52	34	143	685	205	1531
Audubon's Shearwater	<i>Puffinus lherminieri</i>	173	0	534	37	540	11	1295
Cook's Petrel	<i>Pterodroma cookii</i>	1128	7	0	5	0	1	1141
Pink-footed Shearwater	<i>Puffinus creatopus</i>	996	12	32	5	27	54	1126
Red-footed Booby	<i>Sula sula</i>	48	22	148	140	366	374	1098
Leach's Storm-petrel (white-rumped)	<i>Oceanodroma leucorhoa</i>	218	87	27	284	80	380	1076
Red-necked (Northern) Phalarope	<i>Phalaropus lobatus</i>	368	1	326	0	4	0	699
Wedge-tailed Shearwater (unidentified morph)	<i>Puffinus pacificus</i>	4	111	5	0	0	356	476
Masked Booby	<i>Sula dactylatra</i>	20	193	9	58	25	167	472
Red Phalarope	<i>Phalaropus fulicarius</i>	68	8	16	82	243	29	446
Brown Pelican	<i>Pelecanus occidentalis</i>	431	0	0	1	1	0	433
Magnificent Frigatebird	<i>Fregata magnificens</i>	287	1	10	10	11	6	325
Elegant Tern	<i>Sterna elegans</i>	297	0	0	0	13	7	317
Leach's Storm-petrel (dark-rumped)	<i>Oceanodroma leucorhoa</i>	268	2	11	0	0	3	284
Markham's Storm-petrel	<i>Oceanodroma markhami</i>	0	0	4	124	141	0	269
Franklin's Gull	<i>Larus pipixcan</i>	0	0	0	3	257	0	260
Townsend's Shearwater	<i>Puffinus auricularis</i>	44	8	1	0	0	204	257
Hornby's Storm-petrel	<i>Oceanodroma hornbyi</i>	0	0	0	205	48	0	253
Black-vented Shearwater	<i>Puffinus opisthomelas</i>	224	0	0	0	0	0	224
Masked/Nazca Booby	<i>Sula dactylatra/granti</i>	3	102	13	3	71	20	212
Least Storm-petrel	<i>Oceanodroma microsoma</i>	123	6	4	11	17	9	170

Table 1. (*Jordan* seabirds) continued.

Common Name	Scientific Name	Leg I	Leg II	Leg III	Leg IV	Leg V	Leg VI	Total
Nazca Booby	<i>Sula granti</i>	6	4	46	25	68	9	158
Western Gull	<i>Larus occidentalis</i>	150	0	0	0	0	3	153
Defflippe's Petrel	<i>Pterodroma deflippiana</i>	0	0	0	141	0	0	141
Arctic Tern	<i>Sterna paradisaea</i>	0	1	53	74	1	0	129
Brown Noddy	<i>Anous stolidus</i>	42	26	9	4	39	4	124
White Tern	<i>Gygis alba</i>	0	7	4	66	42	0	119
Blue-footed Booby	<i>Sula nebouxii</i>	8	0	0	1	104	0	113
Tahiti Petrel	<i>Pseudobulweria rostrata</i>	0	25	77	1	0	7	110
Pomarine Jaeger	<i>Stercorarius pomarinus</i>	0	0	3	2	46	50	101
Sabine's Gull	<i>Larus sabini</i>	10	2	15	2	64	2	95
Unidentified Frigatebird	<i>Fregata</i> spp.	0	15	20	21	16	20	92
Passerines		9	0	19	5	4	53	90
Red-billed Tropicbird	<i>Phaethon aethereus</i>	11	10	5	15	12	22	75
White-bellied Storm-petrel	<i>Fregatta grallaria</i>	0	0	0	74	0	0	74
Hawaiian/Dark-rumped Petrel	<i>Pterodroma sandwicensis/phaeopygia</i>	0	5	0	58	3	1	67
Harcourt's (Band-rumped) Storm-petrel	<i>Oceanodroma castro</i>	1	0	0	45	17	1	64
Leach's Storm-petrel (unidentified morph)	<i>Oceanodroma leucorhoa</i>	62	0	2	0	0	0	64
Laughing Gull	<i>Larus atricilla</i>	0	0	0	0	8	49	57
Buller's Albatross	<i>Diomedea bulleri</i>	0	0	0	46	2	0	48
Least Tern	<i>Sterna antillarum</i>	29	0	0	1	6	11	47
Parasitic Jaeger	<i>Stercorarius parasiticus</i>	1	2	7	17	15	1	43
Heermann's Gull	<i>Larus heermanni</i>	42	0	0	0	0	0	42
Arctic/Common Tern	<i>Sterna paradisaea/hirundo</i>	5	9	21	0	0	4	39
Great Frigatebird	<i>Fregata minor</i>	0	14	1	11	9	3	38
Swallow-tailed Gull	<i>Larus furcatus</i>	0	0	0	18	18	0	36
White-chinned Petrel	<i>Procellaria aequinoctialis</i>	0	0	0	0	36	0	36
Xantus/Craveri's Murrelet	<i>Synthliboramphus hypoleuca/craveri</i>	31	0	0	0	0	0	31
Christmas Island Shearwater	<i>Puffinus nativitatus</i>	4	14	4	1	4	4	31
Shorebirds		3	1	16	2	2	2	26

Table 1. (*Jordan* seabirds) continued.

Common Name	Scientific Name	Leg I	Leg II	Leg III	Leg IV	Leg V	Leg VI	Total
Kermadec Petrel	<i>Pterodroma neglecta</i>	0	14	6	3	0	0	23
Long-tailed Jaeger	<i>Stercorarius longicaudus</i>	1	10	7	1	2	1	22
Waved Albatross	<i>Diomedea irrorata</i>	0	0	0	3	17	0	20
Peruvian Booby	<i>Sula variegata</i>	0	0	0	0	19	0	19
Black-footed Albatross	<i>Diomedea nigripes</i>	9	0	0	0	0	8	17
White-winged Petrel	<i>Pterodroma leucoptera</i>	0	16	1	0	0	0	17
Band-tailed Gull	<i>Larus belcheri</i>	0	0	0	0	16	0	16
Kermadec Petrel (dark morph)	<i>Pterodroma neglecta</i>	0	0	0	12	3	0	15
Parkinson's Petrel	<i>Procellaria parkinsoni</i>	0	0	2	5	5	0	12
Bridled Tern	<i>Sterna anaethetus</i>	3	0	5	1	0	2	11
Bulwer's Petrel	<i>Bulweria bulwerii</i>	0	9	0	0	0	0	9
Peruvian Tern	<i>Sterna lorata</i>	0	0	0	0	9	0	9
Sandwich Tern	<i>Sterna sandvicensis</i>	0	0	0	0	6	3	9
Chilean Pelican	<i>Pelecanus thagus</i>	0	0	0	0	8	0	8
Cape Petrel	<i>Daption capense</i>	0	0	0	4	3	0	7
Chilean Skua	<i>Stercorarius chilensis</i>	0	0	0	2	5	0	7
Royal Tern	<i>Sterna maxima</i>	4	0	3	0	0	0	7
Craveri's Murrelet	<i>Synthliboramphus craveri</i>	6	0	0	0	0	0	6
Black-winged Petrel	<i>Pterodroma nigripennis</i>	0	6	0	0	0	0	6
Guanay Cormorant	<i>Phalacrocorax bougainvillii</i>	0	0	0	0	5	0	5
Kelp Gull	<i>Larus dominicanus</i>	0	0	0	0	5	0	5
Red-tailed Tropicbird	<i>Phaethon rubricauda</i>	1	2	0	1	0	1	5
Gray Gull	<i>Larus modestus</i>	0	0	0	0	4	0	4
South Polar Skua	<i>Stercorarius maccormicki</i>	1	0	0	2	1	0	4
Leach's Storm-petrel (intermediate-rumped)	<i>Oceanodroma leucorhoa</i>	1	0	2	0	0	1	4
Inca Tern	<i>Larosterna inca</i>	0	0	0	0	4	0	4
Salvin's Albatross	<i>Diomedea cauta salvini</i>	0	0	0	3	0	0	3
Bonaparte's Gull	<i>Larus philadelphia</i>	0	0	0	0	0	3	3
Black Noddy	<i>Anous minutus</i>	0	0	0	1	2	0	3

Table 1. (*Jordan seabirds*) continued.

Common Name	Scientific Name	Leg I	Leg II	Leg III	Leg IV	Leg V	Leg VI	Total
Common Tern	<i>Sterna hirundo</i>	0	0	0	1	2	0	3
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	2	0	0	0	0	0	2
Herring Gull	<i>Larus argentatus</i>	0	0	0	0	0	2	2
Murphy's Petrel	<i>Pterodroma ultima</i>	0	1	0	1	0	0	2
Tahiti/Phoenix Petrel	<i>Pterodroma rostrata/alba</i>	0	1	1	0	0	0	2
Flesh-footed Shearwater	<i>Puffinus carneipes</i>	0	1	0	0	0	1	2
Wedge-tailed Shearwater (intermediate morph)	<i>Puffinus pacificus</i>	0	0	0	0	0	2	2
White-vented Storm-petrel	<i>Oceanites gracilis</i>	0	0	0	0	2	0	2
Laysan Albatross	<i>Diomedea immutabilis</i>	0	0	0	0	0	1	1
Peruvian Diving Petrel	<i>Pelecanoides garroni</i>	0	0	0	0	1	0	1
Northern Fulmar (dark morph)	<i>Fulmarus glacialis</i>	0	0	0	0	0	1	1
Northern Fulmar (light morph)	<i>Fulmarus glacialis</i>	0	0	0	0	0	1	1
California Gull	<i>Larus californicus</i>	0	0	0	0	0	1	1
Glaucous-winged Gull	<i>Larus glaucescens</i>	0	0	0	0	0	1	1
Blue Petrel	<i>Halobaena caerulea</i>	1	0	0	0	0	0	1
Kermadec Petrel (intermediate morph)	<i>Pterodroma neglecta</i>	0	0	0	0	1	0	1
Humboldt Penguin	<i>Spheniscus humboldti</i>	0	0	0	0	1	0	1
Newell's Shearwater	<i>Puffinus newelli</i>	0	1	0	0	0	0	1
Buller's (New Zealand) Shearwater	<i>Puffinus bulleri</i>	1	0	0	0	0	0	1
Slender-billed Shearwater	<i>Puffinus tenuirostris</i>	1	0	0	0	0	0	1
Wilson's Storm-petrel	<i>Oceanites oceanicus</i>	0	0	0	1	0	0	1
Totals		12318	10675	3094	2222	4521	4526	37356

Table 2. Identity and numbers of seabirds recorded from the *McArthur*, 28 July - 9 December 1999.

Common Name	Scientific Name	Leg I	Leg II	Leg III	Leg IV	Leg V	Total
Sooty Tern	<i>Sterna fuscata</i>	6712	4996	217	5364	787	18076
Juan Fernandez Petrel	<i>Pterodroma externa</i>	3589	2391	1178	770	39	7967
Wedge-tailed Shearwater (dark morph)	<i>Puffinus pacificus</i>	2705	1947	293	629	12	5586
Wedge-tailed Shearwater (light morph)	<i>Puffinus pacificus</i>	610	202	664	660	0	2136
Red-footed Booby	<i>Sula sula</i>	9	821	192	89	103	1214
Leach's Storm-petrel (white-rumped)	<i>Oceanodroma leucorhoa</i>	124	98	141	529	181	1073
Brown Booby	<i>Sula leucogaster</i>	0	260	179	54	485	978
Masked/Nazca Booby	<i>Sula dactylatra/granti</i>	1	43	33	475	0	552
Black Tern	<i>Chlidonias niger</i>	0	3	401	2	72	478
Audubon's Shearwater	<i>Puffinus lherminieri</i>	0	2	307	1	5	315
Wedge-rumped (Galapagos) Storm-petrel	<i>Oceanodroma tethys</i>	62	102	34	98	3	299
Masked Booby	<i>Sula dactylatra</i>	18	3	17	199	22	259
Red Phalarope	<i>Phalaropus fulicarius</i>	0	23	50	97	77	247
White-winged Petrel	<i>Pterodroma leucoptera</i>	58	171	2	2	0	233
Leach's Storm-petrel (dark-rumped)	<i>Oceanodroma leucorhoa</i>	8	0	121	89	11	229
Pink-footed Shearwater	<i>Puffinus creatopus</i>	15	13	100	44	4	176
Tahiti Petrel	<i>Pseudobulweria rostrata</i>	54	18	72	24	0	168
Red-necked (Northern) Phalarope	<i>Phalaropus lobatus</i>	1	45	12	61	38	157
Arctic Tern	<i>Sterna paradisaea</i>	0	96	52	0	0	148
Common Tern	<i>Sterna hirundo</i>	0	0	4	0	139	143
Wedge-tailed Shearwater (unidentified morph)	<i>Puffinus pacificus</i>	20	0	22	83	0	125
White Tern	<i>Gygis alba</i>	46	45	22	2	0	115
Arctic/Common Tern	<i>Sterna paradisaea/hirundo</i>	0	0	97	0	1	98
Pomarine Jaeger	<i>Stercorarius pomarinus</i>	0	3	13	69	12	97
Nazca Booby	<i>Sula granti</i>	1	39	48	2	0	90
Great Frigatebird	<i>Fregata minor</i>	2	43	4	26	1	76
Brown Noddy	<i>Anous stolidus</i>	0	66	6	2	0	74
Parasitic Jaeger	<i>Stercorarius parasiticus</i>	0	36	8	19	1	64
Passerines		0	2	46	11	0	59
Unidentified Frigatebird	<i>Fregata</i> spp.	8	7	15	28	0	58
Black Storm-petrel	<i>Oceanodroma melania</i>	0	2	49	4	0	55

Table 2. (*McArthur* seabirds) continued.

Common Name	Scientific Name	Leg I	Leg II	Leg III	Leg IV	Leg V	Total
Red-tailed Tropicbird	<i>Phaethon rubricauda</i>	23	15	3	9	4	54
Sooty Shearwater	<i>Puffinus griseus</i>	6	8	0	6	28	48
Christmas Island Shearwater	<i>Puffinus nativitatus</i>	15	21	3	5	0	44
Kermadec Petrel	<i>Pterodroma neglecta</i>	25	10	4	3	0	42
Red-billed Tropicbird	<i>Phaethon aethereus</i>	2	8	13	16	1	40
Bulwer's Petrel	<i>Bulweria bulwerii</i>	32	4	0	0	0	36
Phoenix Petrel	<i>Pterodroma alba</i>	29	4	0	0	0	33
Harcourt's (Band-rumped) Storm-petrel	<i>Oceanodroma castro</i>	0	28	3	0	0	31
Leach's Storm-petrel (unidentified morph)	<i>Oceanodroma leucorhoa</i>	1	0	0	19	3	23
Black-winged Petrel	<i>Pterodroma nigripennis</i>	14	7	0	0	0	21
Leach's Storm-petrel (intermediate-rumped)	<i>Oceanodroma leucorhoa</i>	4	1	3	6	7	21
Sabine's Gull	<i>Larus sabini</i>	0	13	8	0	0	21
Buller's (New Zealand) Shearwater	<i>Puffinus bulleri</i>	3	16	0	0	0	19
Cook's Petrel	<i>Pterodroma cookii</i>	8	6	1	0	3	18
Newell's Shearwater	<i>Puffinus newelli</i>	9	4	0	0	0	13
Western Gull	<i>Larus occidentalis</i>	8	0	0	0	3	11
Herald Petrel	<i>Pterodroma heraldica</i>	8	2	0	0	0	10
Long-tailed Jaeger	<i>Stercorarius longicaudus</i>	1	5	0	1	3	10
Pycroft's Petrel	<i>Pterodroma pycrofti</i>	8	2	0	0	0	10
Shorebirds		1	6	3	0	0	10
Black-footed Albatross	<i>Diomedea nigripes</i>	1	0	0	0	8	9
Magnificent Frigatebird	<i>Fregata magnificens</i>	0	1	1	6	1	9
Least Tern	<i>Sterna antillarum</i>	0	0	8	0	0	8
Parkinson's Petrel	<i>Procellaria parkinsoni</i>	0	3	5	0	0	8
Hawaiian/Dark-rumped Petrel	<i>Pterodroma sandwichensis/phaeopygia</i>	3	4	0	0	0	7
South Polar Skua	<i>Stercorarius macconnicki</i>	5	0	0	0	0	5
Stejneger's Petrel	<i>Pterodroma longirostris</i>	2	2	0	0	1	5
Murphy's Petrel	<i>Pterodroma ultima</i>	1	3	0	0	0	4
Tahiti/Phoenix Petrel	<i>Pterodroma rostrata/alba</i>	4	0	0	0	0	4
Kermadec/Herald Petrel	<i>Pterodroma neglecta/heraldica</i>	2	0	0	0	1	3
Laughing Gull	<i>Larus atricilla</i>	0	0	1	2	0	3

Table 2. (*McArthur* seabirds) continued.

Common Name	Scientific Name	Leg I	Leg II	Leg III	Leg IV	Leg V	Total
White-tailed Tropicbird	<i>Phaethon lepturus</i>	3	0	0	0	0	3
Xantus/Craveri's Murrelet	<i>Synthliboramphus hypoleuca/craveri</i>	3	0	0	0	0	3
Bridled Tern	<i>Sterna anaethetus</i>	0	0	2	0	0	2
Henderson Petrel	<i>Pterodroma atrata</i>	1	0	1	0	0	2
Herring Gull	<i>Larus argentatus</i>	0	0	0	0	2	2
Least Storm-petrel	<i>Oceanodroma microsoma</i>	0	0	0	0	2	2
Swallow-tailed Gull	<i>Larus furcatus</i>	0	1	1	0	0	2
Townsend's Shearwater	<i>Puffinus auricularis</i>	0	0	0	0	2	2
White-bellied Storm-petrel	<i>Fregatta grallaria</i>	0	2	0	0	0	2
Black Noddy	<i>Anous minutus</i>	0	1	0	0	0	1
Blue-footed Booby	<i>Sula nebouxii</i>	0	0	0	1	0	1
Collared Petrel	<i>Pterodroma brevipes</i>	1	0	0	0	0	1
Flesh-footed Shearwater	<i>Puffinus carneipes</i>	1	0	0	0	0	1
Jouanin's Petrel	<i>Bulweria fallax</i>	1	0	0	0	0	1
Markham's Storm-petrel	<i>Oceanodroma markhami</i>	0	0	0	0	1	1
White-faced Storm-petrel	<i>Pelagodroma marina</i>	0	1	0	0	0	1
Totals		1426	11655	4459	9507	2063	41952

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Table 3. Captured sea turtles released with satellite tags from the *Jordan* and the *McArthur* in 1999.

Ship	Species	Sex	SCL (cm) ¹	Deployment Date	Last Transmission Date	No. of Days Transmitting	Distance Traveled (km)
<i>Jordan</i>	<i>Caretta caretta</i>	Unknown (Juvenile)	58.8	08/07/99	05/19/00	285	2628
<i>Jordan</i>	<i>Caretta caretta</i>	Unknown (Juvenile)	63.8	08/03/99	06/01/00	303	1561
<i>Jordan</i>	<i>Lepidochelys olivacea</i>	Female	65.3	09/07/99	10/03/99	25	790
<i>Jordan</i>	<i>Lepidochelys olivacea</i>	Male	62.6	09/07/99	09/29/99	22	349
<i>Jordan</i>	<i>Lepidochelys olivacea</i>	Female	65.4	09/30/99	12/05/99	67	425
<i>McArthur</i>	<i>Lepidochelys olivacea</i>	Female	63.5	10/07/99	06/17/00	254	2300
<i>McArthur</i>	<i>Lepidochelys olivacea</i>	Male	64.3	10/07/99	11/08/99	32	1068
<i>McArthur</i>	<i>Lepidochelys olivacea</i>	Male	62.8	10/13/99	04/29/00	118	2545
<i>McArthur</i>	<i>Lepidochelys olivacea</i>	Unknown (Juvenile)	45.4	10/14/99	10/19/99	5	103
<i>McArthur</i>	<i>Lepidochelys olivacea</i>	Female	62.5	10/20/99	03/02/00	150	4280

¹SCL = Straight Carapace Length

Table 4. Identity and numbers of flyingfish sighted from the flying bridge of the *Jordan*, 28 July – 9 December 1999.

Sighting Category	Leg 1	Leg 2	Leg 3	Leg 4	Leg 5	Leg 6	Total
<i>Exocoetus</i> spp.	6852	7216	1290	379	206	5632	21575
Four-winged flyingfish	227	739	411	87	98	575	2137
Unidentified flyingfish	575	331	109	45	130	421	1611
<i>Cheilopogon</i> spp.	351	496	371	198	48	58	1522
<i>Cypselurus pinnatibarbatus</i>	114	0	0	2	0	0	116
<i>Cypselurus callopterus</i>	31	0	10	0	0	2	43
<i>Hirundichthys</i> spp.	4	4	0	25	1	0	34
Totals	8154	8786	2191	736	483	6688	27038

Table 5. Identity and numbers of flyingfish sighted from the flying bridge of the *McArthur*, 28 July – 9 December 1999.

Sighting Category	Leg 1	Leg 2	Leg 3	Leg 4	Leg 5	Total
<i>Exocoetus</i> spp.	23277	13194	617	7492	10445	55025
Four-winged flyingfish	2049	939	579	1370	1217	6154
Unidentified flyingfish	845	6	303	664	254	2072
<i>Cheilopogon</i> spp.	0	0	255	393	76	724
<i>Hirundichthys</i> spp.	0	0	0	32	0	32
<i>Cypselurus callopterus</i>	0	0	0	3	2	5
Totals	26171	14139	1754	9954	11994	64012

Table 6. Results of night-light dipnet sampling, *Jordan*, 28 July – 9 December 1999.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
1	99 07 30	1.0	27.45	-115.42	5	5	1	19.2	33.54	30	3	1	1	1	0
1	99 07 30	1.0	27.45	-115.42	5	5	1	19.2	33.54	100	2	2	0	0	0
1	99 07 30	1.0	27.45	-115.42	5	5	1	19.2	33.54	500	3	6	2	3	0
2	99 07 31	1.0	26.38	-113.73	4	5	1	19.5	33.86	30	2	5	1	3	0
2	99 07 31	1.0	26.38	-113.73	4	5	1	19.5	33.86	500	6	36	0	0	0
3	99 08 01	1.0	24.23	-112.38	4	5	1	21.7	34.37	30	1	3	1	2	0
3	99 08 01	1.0	24.23	-112.38	4	5	1	21.7	34.37	80	1	1	0	0	0
3	99 08 01	1.0	24.23	-112.38	4	5	1	21.7	34.37	90	1	1	0	0	0
3	99 08 01	1.0	24.23	-112.38	4	5	1	21.7	34.37	500	1	1	0	0	0
3	99 08 01	1.0	24.23	-112.38	4	5	1	21.7	34.37	500	6	5	0	0	0
3	99 08 01	1.0	24.23	-112.38	4	5	1	21.7	34.37	500	4	8	0	0	0
3	99 08 01	1.0	24.23	-112.38	4	5	1	21.7	34.37	500	1	1	0	0	0
4	99 08 02	1.0	23.07	-114.08	3	5	1	22.6	34.09	20	1	1	1	4	0
4	99 08 02	1.0	23.07	-114.08	3	5	1	22.6	34.09	30	3	7	0	0	0
4	99 08 02	1.0	23.07	-114.08	3	5	1	22.6	34.09	80	1	0	0	0	0
4	99 08 02	1.0	23.07	-114.08	3	5	1	22.6	34.09	100	5	27	0	0	0
4	99 08 02	1.0	23.07	-114.08	3	5	1	22.6	34.09	500	1	1	0	0	0
4	99 08 02	1.0	23.07	-114.08	3	5	1	22.6	34.09	500	1	4	0	0	0
4	99 08 02	1.0	23.07	-114.08	3	5	1	22.6	34.09	500	1	1	0	0	0
5	99 08 03	1.0	23.45	-111.65	3	5	1	24.2	34.21	20	2	3	1	2	0
5	99 08 03	1.0	23.45	-111.65	3	5	1	24.2	34.21	30	1	1	0	0	0
5	99 08 03	1.0	23.45	-111.65	3	5	1	24.2	34.21	80	1	0	0	0	0
5	99 08 03	1.0	23.45	-111.65	3	5	1	24.2	34.21	90	1	1	0	0	0
5	99 08 03	1.0	23.45	-111.65	3	5	1	24.2	34.21	100	5	37	0	0	0
5	99 08 03	1.0	23.45	-111.65	3	5	1	24.2	34.21	300	1	0	0	0	0
5	99 08 03	1.0	23.45	-111.65	3	5	1	24.2	34.21	400	1	2	0	0	0
5	99 08 03	1.0	23.45	-111.65	3	5	1	24.2	34.21	500	1	1	0	0	0
5	99 08 03	1.0	23.45	-111.65	3	5	1	24.2	34.21	500	1	1	0	0	0
6	99 08 04	1.0	22.77	-110.62	4	5	1	27.0	35.11	10	2	4	0	0	0
6	99 08 04	1.0	22.77	-110.62	4	5	1	27.0	35.11	20	4	11	1	5	0
6	99 08 04	1.0	22.77	-110.62	4	5	1	27.0	35.11	30	3	9	2	2	0
6	99 08 04	1.0	22.77	-110.62	4	5	1	27.0	35.11	80	1	0	3	2	0
6	99 08 04	1.0	22.77	-110.62	4	5	1	27.0	35.11	100	3	1	0	0	0
6	99 08 04	1.0	22.77	-110.62	4	5	1	27.0	35.11	500	4	5	0	0	0
7	99 08 05	1.0	20.87	-113.05	3	5	1	26.4	34.74	10	2	2	1	5	0
7	99 08 05	1.0	20.87	-113.05	3	5	1	26.4	34.74	20	3	9	2	3	0
7	99 08 05	1.0	20.87	-113.05	3	5	1	26.4	34.74	30	1	1	3	2	0
7	99 08 05	1.0	20.87	-113.05	3	5	1	26.4	34.74	100	4	9	0	0	0
7	99 08 05	1.0	20.87	-113.05	3	5	1	26.4	34.74	400	1	1	0	0	0
7	99 08 05	1.0	20.87	-113.05	3	5	1	26.4	34.74	500	2	4	0	0	0
7	99 08 05	1.0	20.87	-113.05	3	5	1	26.4	34.74	500	1	1	0	0	0
7	99 08 05	1.0	20.87	-113.05	3	5	1	26.4	34.74	500	2	3	0	0	0
8	99 08 06	1.0	21.60	-110.48	3	5	1	25.3	33.44	20	4	12	1	6	0
8	99 08 06	1.0	21.60	-110.48	3	5	1	25.3	33.44	30	4	11	2	4	0
8	99 08 06	1.0	21.60	-110.48	3	5	1	25.3	33.44	80	1	2	3	3	0
8	99 08 06	1.0	21.60	-110.48	3	5	1	25.3	33.44	100	5	5	0	0	0
8	99 08 06	1.0	21.60	-110.48	3	5	1	25.3	33.44	300	1	0	0	0	0

Table 6. (*Jordan* dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
8	99 08 06	1.0	21.60	-110.48	3	5	1	25.3	33.44	400	1	1	0	0	0
8	99 08 06	1.0	21.60	-110.48	3	5	1	25.3	33.44	500	1	1	0	0	0
9	99 08 07	1.0	20.32	-109.67	1	5	1	27.5	34.63	10	5	6	1	6	0
9	99 08 07	1.0	20.32	-109.67	1	5	1	27.5	34.63	20	3	7	2	4	0
9	99 08 07	1.0	20.32	-109.67	1	5	1	27.5	34.63	30	3	4	3	2	0
9	99 08 07	1.0	20.32	-109.67	1	5	1	27.5	34.63	100	5	16	0	0	0
9	99 08 07	1.0	20.32	-109.67	1	5	1	27.5	34.63	200	2	3	0	0	0
9	99 08 07	1.0	20.32	-109.67	1	5	1	27.5	34.63	500	2	2	0	0	0
9	99 08 07	1.0	20.32	-109.67	1	5	1	27.5	34.63	500	1	2	0	0	0
10	99 08 08	1.0	20.08	-108.37	1	5	3	29.5	34.93	10	1	0	1	5	0
10	99 08 08	1.0	20.08	-108.37	1	5	3	29.5	34.93	100	3	1	2	3	0
10	99 08 08	1.0	20.08	-108.37	1	5	3	29.5	34.93	200	1	2	3	2	0
11	99 08 09	1.0	22.40	-107.77	3	5	3	29.8	34.95	10	6	28	1	6	0
11	99 08 09	1.0	22.40	-107.77	3	5	3	29.8	34.95	20	2	3	2	3	0
11	99 08 09	1.0	22.40	-107.77	3	5	3	29.8	34.95	30	4	9	3	3	0
11	99 08 09	1.0	22.40	-107.77	3	5	3	29.8	34.95	400	1	0	0	0	0
12	99 08 10	1.0	24.47	-109.40	3	5	1	30.4	35.15	10	5	16	2	4	0
12	99 08 10	1.0	24.47	-109.40	3	5	1	30.4	35.15	15	3	5	0	0	0
12	99 08 10	1.0	24.47	-109.40	3	5	1	30.4	35.15	30	4	18	3	3	0
12	99 08 10	1.0	24.47	-109.40	3	5	1	30.4	35.15	80	1	2	0	0	0
12	99 08 10	1.0	24.47	-109.40	3	5	1	30.4	35.15	90	2	4	0	0	0
12	99 08 10	1.0	24.47	-109.40	3	5	1	30.4	35.15	125	1	1	0	0	0
12	99 08 10	1.0	24.47	-109.40	3	5	1	30.4	35.15	200	1	2	0	0	0
12	99 08 10	1.0	24.47	-109.40	3	5	1	30.4	35.15	400	2	3	0	0	0
12	99 08 10	1.0	24.47	-109.40	3	5	1	30.4	35.15	500	1	1	0	0	0
12	99 08 10	1.0	24.47	-109.40	3	5	1	30.4	35.15	500	1	1	0	0	0
13	99 08 11	1.0	25.30	-109.28	1	5	1	30.9	35.18	15	1	2	2	2	0
13	99 08 11	1.0	25.30	-109.28	1	5	1	30.9	35.18	30	4	16	3	1	0
13	99 08 11	1.0	25.30	-109.28	1	5	1	30.9	35.18	300	1	1	0	0	0
13	99 08 11	1.0	25.30	-109.28	1	5	1	30.9	35.18	500	1	1	0	0	0
13	99 08 11	1.0	25.30	-109.28	1	5	1	30.9	35.18	500	5	15	0	0	0
13	99 08 11	1.0	25.30	-109.28	1	5	1	30.9	35.18	500	8	3	0	0	0
14	99 08 12	1.0	23.05	-107.37	1	5	2	29.8	35.19	10	5	15	1	1	0
14	99 08 12	1.0	23.05	-107.37	1	5	2	29.8	35.19	20	1	1	0	0	0
14	99 08 12	1.0	23.05	-107.37	1	5	2	29.8	35.19	30	3	6	0	0	0
14	99 08 12	1.0	23.05	-107.37	1	5	2	29.8	35.19	80	2	2	0	0	0
14	99 08 12	1.0	23.05	-107.37	1	5	2	29.8	35.19	90	1	2	0	0	0
14	99 08 12	1.0	23.05	-107.37	1	5	2	29.8	35.19	200	4	4	0	0	0
14	99 08 12	1.0	23.05	-107.37	1	5	2	29.8	35.19	400	3	5	0	0	0
14	99 08 12	1.0	23.05	-107.37	1	5	2	29.8	35.19	500	1	1	0	0	0
14	99 08 12	1.0	23.05	-107.37	1	5	2	29.8	35.19	500	8	3	0	0	0
14	99 08 12	1.0	23.05	-107.37	1	5	2	29.8	35.19	500	1	1	0	0	0
14	99 08 12	1.0	23.05	-107.37	1	5	2	29.8	35.19	500	8	2	0	0	0
15	99 08 13	1.0	21.23	-105.83	3	1	2	30.8	33.98	10	1	1	3	5	0
15	99 08 13	1.0	21.23	-105.83	3	1	2	30.8	33.98	15	4	14	0	0	0
15	99 08 13	1.0	21.23	-105.83	3	1	2	30.8	33.98	30	4	22	0	0	0
15	99 08 13	1.0	21.23	-105.83	3	1	2	30.8	33.98	80	2	2	0	0	0

Table 6. (Jordan dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
15	99 08 13	1.0	21.23	-105.83	3	1	2	30.8	33.98	90	1	1	0	0	0
15	99 08 13	1.0	21.23	-105.83	3	1	2	30.8	33.98	200	2	2	0	0	0
15	99 08 13	1.0	21.23	-105.83	3	1	2	30.8	33.98	500	1	1	0	0	0
15	99 08 13	1.0	21.23	-105.83	3	1	2	30.8	33.98	500	4	5	0	0	0
15	99 08 13	1.0	21.23	-105.83	3	1	2	30.8	33.98	500	1	1	0	0	0
15	99 08 13	1.0	21.23	-105.83	3	1	2	30.8	33.98	500	1	2	0	0	0
15	99 08 13	1.0	21.23	-105.83	3	1	2	30.8	33.98	500	1	1	0	0	0
15	99 08 13	1.0	21.23	-105.83	3	1	2	30.8	33.98	500	1	1	0	0	0
16	99 08 14	1.0	19.68	-107.17	0	5	1	30.2	34.58	10	5	7	1	1	0
16	99 08 14	1.0	19.68	-107.17	0	5	1	30.2	34.58	30	2	2	2	1	0
16	99 08 14	1.0	19.68	-107.17	0	5	1	30.2	34.58	100	2	2	3	2	0
16	99 08 14	1.0	19.68	-107.17	0	5	1	30.2	34.58	500	1	1	0	0	0
17	99 08 15	1.0	19.20	-105.28	0	1	5	30.6	34.18	10	2	3	3	2	0
17	99 08 15	1.0	19.20	-105.28	0	1	5	30.6	34.18	20	1	1	0	0	0
17	99 08 15	1.0	19.20	-105.28	0	1	5	30.6	34.18	30	1	1	0	0	0
17	99 08 15	1.0	19.20	-105.28	0	1	5	30.6	34.18	100	1	1	0	0	0
17	99 08 15	1.0	19.20	-105.28	0	1	5	30.6	34.18	200	1	1	0	0	0
17	99 08 15	1.0	19.20	-105.28	0	1	5	30.6	34.18	500	2	1	0	0	0
17	99 08 15	1.0	19.20	-105.28	0	1	5	30.6	34.18	500	5	19	0	0	0
17	99 08 15	1.0	19.20	-105.28	0	1	5	30.6	34.18	500	2	1	0	0	0
18	99 08 20	1.0	18.37	-105.30	5	5	3	29.9	34.01	20	1	2	2	2	0
18	99 08 20	1.0	18.37	-105.30	5	5	3	29.9	34.01	30	1	1	3	1	0
18	99 08 20	1.0	18.37	-105.30	5	5	3	29.9	34.01	80	2	2	0	0	0
18	99 08 20	1.0	18.37	-105.30	5	5	3	29.9	34.01	500	1	1	0	0	0
18	99 08 20	1.0	18.37	-105.30	5	5	3	29.9	34.01	500	1	0	0	0	0
19	99 08 22	1.0	14.03	-108.72	5	5	3	28.2	33.57	10	1	2	0	0	0
19	99 08 22	1.0	14.03	-108.72	5	5	3	28.2	33.57	20	3	6	0	0	0
19	99 08 22	1.0	14.03	-108.72	5	5	3	28.2	33.57	30	2	3	0	0	0
19	99 08 22	1.0	14.03	-108.72	5	5	3	28.2	33.57	100	1	1	0	0	0
19	99 08 22	1.0	14.03	-108.72	5	5	3	28.2	33.57	400	1	0	0	0	0
20	99 08 23	1.0	12.12	-110.70	4	5	4	27.3	33.79	10	1	1	2	2	0
20	99 08 23	1.0	12.12	-110.70	4	5	4	27.3	33.79	400	1	1	0	0	0
21	99 08 24	1.0	10.05	-112.53	4	5	3	26.9	33.32	10	1	1	1	2	0
21	99 08 24	1.0	10.05	-112.53	4	5	3	26.9	33.32	20	1	1	2	2	0
21	99 08 24	1.0	10.05	-112.53	4	5	3	26.9	33.32	100	2	4	3	1	0
22	99 08 25	1.0	10.80	-114.58	3	5	3	27.2	33.33	10	2	3	1	4	0
22	99 08 25	1.0	10.80	-114.58	3	5	3	27.2	33.33	20	1	1	2	2	0
22	99 08 25	1.0	10.80	-114.58	3	5	3	27.2	33.33	30	2	3	3	2	0
22	99 08 25	1.0	10.80	-114.58	3	5	3	27.2	33.33	100	4	9	0	0	0
22	99 08 25	1.0	10.80	-114.58	3	5	3	27.2	33.33	300	1	0	0	0	0
22	99 08 25	1.0	10.80	-114.58	3	5	3	27.2	33.33	400	2	0	0	0	0
23	99 08 26	1.0	11.88	-116.98	3	4	2	27.5	33.70	10	1	1	2	3	0
23	99 08 26	1.0	11.88	-116.98	3	4	2	27.5	33.70	20	3	9	0	0	0
23	99 08 26	1.0	11.88	-116.98	3	4	2	27.5	33.70	30	1	2	0	0	0
23	99 08 26	1.0	11.88	-116.98	3	4	2	27.5	33.70	100	4	10	0	0	0
23	99 08 26	1.0	11.88	-116.98	3	4	2	27.5	33.70	300	1	0	0	0	0

Table 6. (Jordan dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
24	99 08 27	1.0	10.97	-119.90	4	5	3	27.2	33.42	10	1	2	1	2	0
24	99 08 27	1.0	10.97	-119.90	4	5	3	27.2	33.42	30	2	4	2	5	0
24	99 08 27	1.0	10.97	-119.90	4	5	3	27.2	33.42	100	5	21	0	0	0
24	99 08 27	1.0	10.97	-119.90	4	5	3	27.2	33.42	400	1	1	0	0	0
25	99 08 28	1.0	9.12	-117.53	5	5	3	27.0	33.43	10	4	9	1	4	0
25	99 08 28	1.0	9.12	-117.53	5	5	3	27.0	33.43	20	4	18	2	3	0
25	99 08 28	1.0	9.12	-117.53	5	5	3	27.0	33.43	30	2	2	0	0	0
25	99 08 28	1.0	9.12	-117.53	5	5	3	27.0	33.43	100	4	6	0	0	0
26	99 08 29	1.0	7.05	-119.27	4	5	3	27.0	33.94	10	4	9	1	4	0
26	99 08 29	1.0	7.05	-119.27	4	5	3	27.0	33.94	20	4	11	2	3	0
26	99 08 29	1.0	7.05	-119.27	4	5	3	27.0	33.94	30	3	5	3	1	0
26	99 08 29	1.0	7.05	-119.27	4	5	3	27.0	33.94	100	5	12	0	0	0
26	99 08 29	1.0	7.05	-119.27	4	5	3	27.0	33.94	300	1	0	0	0	0
26	99 08 29	1.0	7.05	-119.27	4	5	3	27.0	33.94	400	2	4	0	0	0
27	99 08 30	1.0	5.32	-118.45	5	5	3	26.1	34.67	10	1	1	1	3	0
27	99 08 30	1.0	5.32	-118.45	5	5	3	26.1	34.67	20	3	7	2	5	0
27	99 08 30	1.0	5.32	-118.45	5	5	3	26.1	34.67	30	3	7	3	1	0
27	99 08 30	1.0	5.32	-118.45	5	5	3	26.1	34.67	100	5	16	0	0	0
27	99 08 30	1.0	5.32	-118.45	5	5	3	26.1	34.67	300	1	0	0	0	0
28	99 08 31	1.0	6.53	-115.87	5	5	3	26.8	33.91	10	2	4	1	3	0
28	99 08 31	1.0	6.53	-115.87	5	5	3	26.8	33.91	20	3	10	2	4	0
28	99 08 31	1.0	6.53	-115.87	5	5	3	26.8	33.91	30	2	4	0	0	0
28	99 08 31	1.0	6.53	-115.87	5	5	3	26.8	33.91	100	5	12	0	0	0
29	99 09 01	1.0	8.13	-112.82	5	5	3	26.6	33.23	10	4	15	1	2	0
29	99 09 01	1.0	8.13	-112.82	5	5	3	26.6	33.23	20	4	8	2	3	0
29	99 09 01	1.0	8.13	-112.82	5	5	3	26.6	33.23	30	3	4	3	1	0
29	99 09 01	1.0	8.13	-112.82	5	5	3	26.6	33.23	100	3	4	0	0	0
29	99 09 01	1.0	8.13	-112.82	5	5	3	26.6	33.23	500	1	1	0	0	0
30	99 09 02	1.0	6.47	-109.98	4	5	3	26.8	33.40	10	5	19	1	3	0
30	99 09 02	1.0	6.47	-109.98	4	5	3	26.8	33.40	20	3	4	2	3	0
30	99 09 02	1.0	6.47	-109.98	4	5	3	26.8	33.40	30	4	6	3	1	0
30	99 09 02	1.0	6.47	-109.98	4	5	3	26.8	33.40	100	4	7	0	0	0
30	99 09 02	1.0	6.47	-109.98	4	5	3	26.8	33.40	300	1	0	0	0	0
31	99 09 03	1.0	5.62	-107.65	3	5	2	26.9	33.42	10	5	13	1	4	0
31	99 09 03	1.0	5.62	-107.65	3	5	2	26.9	33.42	20	1	1	2	3	0
31	99 09 03	1.0	5.62	-107.65	3	5	2	26.9	33.42	30	1	1	3	1	0
31	99 09 03	1.0	5.62	-107.65	3	5	2	26.9	33.42	100	5	21	0	0	0
31	99 09 03	1.0	5.62	-107.65	3	5	2	26.9	33.42	400	1	0	0	0	0
31	99 09 03	1.0	5.62	-107.65	3	5	2	26.9	33.42	500	1	1	0	0	0
32	99 09 04	1.0	8.67	-106.38	4	5	2	26.6	33.43	10	2	4	1	3	0
32	99 09 04	1.0	8.67	-106.38	4	5	2	26.6	33.43	20	3	8	2	4	0
32	99 09 04	1.0	8.67	-106.38	4	5	2	26.6	33.43	30	3	5	3	2	0
32	99 09 04	1.0	8.67	-106.38	4	5	2	26.6	33.43	80	2	3	0	0	0
32	99 09 04	1.0	8.67	-106.38	4	5	2	26.6	33.43	100	5	6	0	0	0
32	99 09 04	1.0	8.67	-106.38	4	5	2	26.6	33.43	200	4	1	0	0	0
32	99 09 04	1.0	8.67	-106.38	4	5	2	26.6	33.43	400	1	1	0	0	0
32	99 09 04	1.0	8.67	-106.38	4	5	2	26.6	33.43	500	2	0	0	0	0

Table 6. (Jordan dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
33	99 09 05	1.0	11.75	-105.13	4	5	2	27.4	33.76	10	4	21	1	1	0
33	99 09 05	1.0	11.75	-105.13	4	5	2	27.4	33.76	20	4	38	2	5	0
33	99 09 05	1.0	11.75	-105.13	4	5	2	27.4	33.76	30	4	10	0	0	0
33	99 09 05	1.0	11.75	-105.13	4	5	2	27.4	33.76	100	4	4	0	0	0
33	99 09 05	1.0	11.75	-105.13	4	5	2	27.4	33.76	300	1	0	0	0	0
33	99 09 05	1.0	11.75	-105.13	4	5	2	27.4	33.76	400	2	4	0	0	0
33	99 09 05	1.0	11.75	-105.13	4	5	2	27.4	33.76	500	1	1	0	0	0
34	99 09 06	1.0	14.63	-104.03	4	5	2	28.3	33.63	10	5	21	1	3	0
34	99 09 06	1.0	14.63	-104.03	4	5	2	28.3	33.63	20	5	33	2	5	0
34	99 09 06	1.0	14.63	-104.03	4	5	2	28.3	33.63	30	3	6	3	1	0
34	99 09 06	1.0	14.63	-104.03	4	5	2	28.3	33.63	90	1	1	0	0	0
34	99 09 06	1.0	14.63	-104.03	4	5	2	28.3	33.63	100	2	1	0	0	0
34	99 09 06	1.0	14.63	-104.03	4	5	2	28.3	33.63	500	1	1	0	0	0
34	99 09 06	1.0	14.63	-104.03	4	5	2	28.3	33.63	500	2	0	0	0	0
	99 09 07	0.0	14.88	-103.90	-	-	-	-	-	30	0	2	0	0	0
35	99 09 07	1.0	17.12	-103.07	3	5	2	28.8	33.53	10	5	30	1	4	0
35	99 09 07	1.0	17.12	-103.07	3	5	2	28.8	33.53	20	3	6	2	5	0
35	99 09 07	1.0	17.12	-103.07	3	5	2	28.8	33.53	30	4	10	3	1	0
35	99 09 07	1.0	17.12	-103.07	3	5	2	28.8	33.53	80	1	1	0	0	0
35	99 09 07	1.0	17.12	-103.07	3	5	2	28.8	33.53	90	1	1	0	0	0
35	99 09 07	1.0	17.12	-103.07	3	5	2	28.8	33.53	100	3	5	0	0	0
36	99 09 08	1.0	17.02	-100.73	2	5	3	27.3	33.68	15	3	4	1	3	0
36	99 09 08	1.0	17.02	-100.73	2	5	3	27.3	33.68	30	2	2	2	3	0
36	99 09 08	1.0	17.02	-100.73	2	5	3	27.3	33.68	80	5	10	0	0	0
36	99 09 08	1.0	17.02	-100.73	2	5	3	27.3	33.68	90	2	0	0	0	0
36	99 09 08	1.0	17.02	-100.73	2	5	3	27.3	33.68	200	1	1	0	0	0
36	99 09 08	1.0	17.02	-100.73	2	5	3	27.3	33.68	500	3	6	0	0	0
36	99 09 08	1.0	17.02	-100.73	2	5	3	27.3	33.68	500	1	1	0	0	0
36	99 09 08	1.0	17.02	-100.73	2	5	3	27.3	33.68	500	1	2	0	0	0
37	99 09 13	1.0	15.45	-100.08	3	5	3	28.9	33.17	10	4	11	1	2	0
37	99 09 13	1.0	15.45	-100.08	3	5	3	28.9	33.17	100	2	3	2	3	0
37	99 09 13	1.0	15.45	-100.08	3	5	3	28.9	33.17	200	1	1	3	2	0
37	99 09 13	1.0	15.45	-100.08	3	5	3	28.9	33.17	400	2	3	0	0	0
37	99 09 13	1.0	15.45	-100.08	3	5	3	28.9	33.17	500	3	0	0	0	0
37	99 09 13	1.0	15.45	-100.08	3	5	3	28.9	33.17	500	3	7	0	0	0
38	99 09 14	1.0	12.37	-100.45	3	5	2	28.6	33.47	10	4	13	1	2	0
38	99 09 14	1.0	12.37	-100.45	3	5	2	28.6	33.47	20	3	5	2	3	0
38	99 09 14	1.0	12.37	-100.45	3	5	2	28.6	33.47	30	3	6	3	3	0
38	99 09 14	1.0	12.37	-100.45	3	5	2	28.6	33.47	100	3	2	0	0	0
38	99 09 14	1.0	12.37	-100.45	3	5	2	28.6	33.47	300	1	0	0	0	0
39	99 09 16	1.0	6.77	-100.92	3	5	3	26.8	33.36	10	3	4	1	4	0
39	99 09 16	1.0	6.77	-100.92	3	5	3	26.8	33.36	20	3	7	2	3	0
39	99 09 16	1.0	6.77	-100.92	3	5	3	26.8	33.36	30	3	5	0	0	0
39	99 09 16	1.0	6.77	-100.92	3	5	3	26.8	33.36	100	4	28	0	0	0
39	99 09 16	1.0	6.77	-100.92	3	5	3	26.8	33.36	300	1	1	0	0	0
39	99 09 16	1.0	6.77	-100.92	3	5	3	26.8	33.36	500	1	1	0	0	0
40	99 09 17	1.0	6.92	-100.35	3	5	3	26.6	33.21	10	3	5	1	3	0

Table 6. (*Jordan* dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
40	99 09 17	1.0	6.92	-100.35	3	5	3	26.6	33.21	20	4	12	2	4	0
40	99 09 17	1.0	6.92	-100.35	3	5	3	26.6	33.21	30	4	13	0	0	0
40	99 09 17	1.0	6.92	-100.35	3	5	3	26.6	33.21	100	4	7	0	0	0
40	99 09 17	1.0	6.92	-100.35	3	5	3	26.6	33.21	400	1	2	0	0	0
40	99 09 17	1.0	6.92	-100.35	3	5	3	26.6	33.21	500	1	1	0	0	0
41	99 09 18	1.0	9.45	-99.07	4	5	3	27.3	33.43	10	4	12	1	3	0
41	99 09 18	1.0	9.45	-99.07	4	5	3	27.3	33.43	20	3	5	2	3	0
41	99 09 18	1.0	9.45	-99.07	4	5	3	27.3	33.43	30	3	7	3	1	0
41	99 09 18	1.0	9.45	-99.07	4	5	3	27.3	33.43	400	1	3	0	0	0
42	99 09 19	1.0	12.30	-97.68	5	5	3	27.3	33.04	10	1	1	1	2	0
42	99 09 19	1.0	12.30	-97.68	5	5	3	27.3	33.04	20	1	1	2	3	0
42	99 09 19	1.0	12.30	-97.68	5	5	3	27.3	33.04	30	2	1	3	1	0
42	99 09 19	1.0	12.30	-97.68	5	5	3	27.3	33.04	90	1	1	0	0	0
42	99 09 19	1.0	12.30	-97.68	5	5	3	27.3	33.04	100	2	2	0	0	0
42	99 09 19	1.0	12.30	-97.68	5	5	3	27.3	33.04	400	1	1	0	0	0
43	99 09 20	1.0	14.75	-96.53	3	3	2	28.5	32.98	10	1	1	1	2	0
43	99 09 20	1.0	14.75	-96.53	3	3	2	28.5	32.98	20	1	2	2	6	0
43	99 09 20	1.0	14.75	-96.53	3	3	2	28.5	32.98	30	1	1	0	0	0
43	99 09 20	1.0	14.75	-96.53	3	3	2	28.5	32.98	80	3	9	0	0	0
43	99 09 20	1.0	14.75	-96.53	3	3	2	28.5	32.98	400	1	1	0	0	0
43	99 09 20	1.0	14.75	-96.53	3	3	2	28.5	32.98	500	1	1	0	0	0
43	99 09 20	1.0	14.75	-96.53	3	3	2	28.5	32.98	500	8	4	0	0	0
43	99 09 20	1.0	14.75	-96.53	3	3	2	28.5	32.98	500	8	2	0	0	0
43	99 09 20	1.0	14.75	-96.53	3	3	2	28.5	32.98	500	1	1	0	0	0
44	99 09 21	1.0	13.97	-95.70	3	3	2	27.4	33.35	20	1	1	2	5	0
44	99 09 21	1.0	13.97	-95.70	3	3	2	27.4	33.35	30	1	2	3	2	0
44	99 09 21	1.0	13.97	-95.70	3	3	2	27.4	33.35	80	2	4	0	0	0
44	99 09 21	1.0	13.97	-95.70	3	3	2	27.4	33.35	400	2	3	0	0	0
44	99 09 21	1.0	13.97	-95.70	3	3	2	27.4	33.35	500	2	4	0	0	0
44	99 09 21	1.0	13.97	-95.70	3	3	2	27.4	33.35	500	1	2	0	0	0
44	99 09 21	1.0	13.97	-95.70	3	3	2	27.4	33.35	500	1	0	0	0	0
45	99 09 22	1.0	10.63	-94.87	3	3	2	27.0	33.39	10	2	2	1	2	0
45	99 09 22	1.0	10.63	-94.87	3	3	2	27.0	33.39	20	1	0	2	6	0
45	99 09 22	1.0	10.63	-94.87	3	3	2	27.0	33.39	30	2	3	0	0	0
45	99 09 22	1.0	10.63	-94.87	3	3	2	27.0	33.39	300	1	0	0	0	0
45	99 09 22	1.0	10.63	-94.87	3	3	2	27.0	33.39	400	1	1	0	0	0
45	99 09 22	1.0	10.63	-94.87	3	3	2	27.0	33.39	500	1	1	0	0	0
46	99 09 23	1.0	7.42	-94.22	4	4	2	26.4	33.47	10	2	4	1	3	0
46	99 09 23	1.0	7.42	-94.22	4	4	2	26.4	33.47	20	2	4	2	5	0
46	99 09 23	1.0	7.42	-94.22	4	4	2	26.4	33.47	30	2	3	0	0	0
46	99 09 23	1.0	7.42	-94.22	4	4	2	26.4	33.47	100	3	6	0	0	0
46	99 09 23	1.0	7.42	-94.22	4	4	2	26.4	33.47	200	4	3	0	0	0
47	99 09 24	1.0	5.88	-93.37	4	4	1	26.6	33.30	10	1	1	1	2	0
47	99 09 24	1.0	5.88	-93.37	4	4	1	26.6	33.30	20	2	3	2	3	0
47	99 09 24	1.0	5.88	-93.37	4	4	1	26.6	33.30	30	2	2	0	0	0
47	99 09 24	1.0	5.88	-93.37	4	4	1	26.6	33.30	100	3	12	0	0	0
47	99 09 24	1.0	5.88	-93.37	4	4	1	26.6	33.30	700	1	0	0	0	0

Table 6. (Jordan dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
48	99 09 25	1.0	8.70	-91.98	4	4	3	25.7	33.52	10	2	4	1	4	0
48	99 09 25	1.0	8.70	-91.98	4	4	3	25.7	33.52	20	1	2	2	2	0
48	99 09 25	1.0	8.70	-91.98	4	4	3	25.7	33.52	30	1	1	3	1	0
48	99 09 25	1.0	8.70	-91.98	4	4	3	25.7	33.52	100	4	19	0	0	0
48	99 09 25	1.0	8.70	-91.98	4	4	3	25.7	33.52	400	1	1	0	0	0
49	99 09 26	1.0	11.52	-90.68	4	5	4	25.7	32.56	30	2	3	1	8	0
49	99 09 26	1.0	11.52	-90.68	4	5	4	25.7	32.56	80	1	2	2	8	0
49	99 09 26	1.0	11.52	-90.68	4	5	4	25.7	32.56	400	1	1	3	8	0
49	99 09 26	1.0	11.52	-90.68	4	5	4	25.7	32.56	500	1	1	0	0	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	10	2	3	1	2	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	15	1	1	2	3	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	20	1	1	3	4	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	30	4	25	0	0	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	80	5	9	0	0	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	90	1	1	0	0	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	90	1	1	0	0	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	100	3	3	0	0	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	200	6	0	0	0	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	400	3	5	0	0	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	500	1	1	0	0	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	500	1	2	0	0	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	500	1	1	0	0	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	500	8	4	0	0	0
50	99 09 27	1.0	12.83	-89.73	2	5	3	27.4	31.52	500	1	1	0	0	0
51	99 09 28	1.0	10.47	-89.22	4	5	3	26.6	32.88	10	5	10	1	6	0
51	99 09 28	1.0	10.47	-89.22	4	5	3	26.6	32.88	20	5	27	2	4	0
51	99 09 28	1.0	10.47	-89.22	4	5	3	26.6	32.88	30	5	27	3	2	0
51	99 09 28	1.0	10.47	-89.22	4	5	3	26.6	32.88	80	1	1	0	0	0
51	99 09 28	1.0	10.47	-89.22	4	5	3	26.6	32.88	90	1	0	0	0	0
51	99 09 28	1.0	10.47	-89.22	4	5	3	26.6	32.88	100	8	1	0	0	0
51	99 09 28	1.0	10.47	-89.22	4	5	3	26.6	32.88	500	2	3	0	0	0
51	99 09 28	1.0	10.47	-89.22	4	5	3	26.6	32.88	500	2	3	0	0	0
51	99 09 28	1.0	10.47	-89.22	4	5	3	26.6	32.88	500	8	1	0	0	0
51	99 09 28	1.0	10.47	-89.22	4	5	3	26.6	32.88	500	8	1	0	0	0
52	99 09 29	1.0	10.73	-86.63	4	5	2	27.3	31.94	10	2	3	1	6	0
52	99 09 29	1.0	10.73	-86.63	4	5	2	27.3	31.94	30	2	4	2	3	0
52	99 09 29	1.0	10.73	-86.63	4	5	2	27.3	31.94	80	2	3	0	0	0
52	99 09 29	1.0	10.73	-86.63	4	5	2	27.3	31.94	200	1	1	0	0	0
53	99 09 30	1.0	9.37	-85.07	4	5	3	25.3	32.32	15	2	5	1	3	0
53	99 09 30	1.0	9.37	-85.07	4	5	3	25.3	32.32	30	1	0	2	4	0
53	99 09 30	1.0	9.37	-85.07	4	5	3	25.3	32.32	80	3	5	3	1	0
53	99 09 30	1.0	9.37	-85.07	4	5	3	25.3	32.32	90	1	0	0	0	0
53	99 09 30	1.0	9.37	-85.07	4	5	3	25.3	32.32	500	3	3	0	0	0
54	99 10 08	1.0	8.12	-83.63	0	5	2	26.8	32.27	30	1	2	1	2	0
54	99 10 08	1.0	8.12	-83.63	0	5	2	26.8	32.27	80	2	4	2	4	0
54	99 10 08	1.0	8.12	-83.63	0	5	2	26.8	32.27	100	3	10	3	2	0
54	99 10 08	1.0	8.12	-83.63	0	5	2	26.8	32.27	500	4	17	0	0	0

Table 6. (Jordan dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
55	99 10 09	1.0	6.22	-85.53	4	5	2	26.3	33.15	10	2	3	1	2	0
55	99 10 09	1.0	6.22	-85.53	4	5	2	26.3	33.15	20	3	6	2	2	0
55	99 10 09	1.0	6.22	-85.53	4	5	2	26.3	33.15	30	2	4	3	2	0
55	99 10 09	1.0	6.22	-85.53	4	5	2	26.3	33.15	100	8	4	0	0	0
55	99 10 09	1.0	6.22	-85.53	4	5	2	26.3	33.15	300	1	0	0	0	0
55	99 10 09	1.0	6.22	-85.53	4	5	2	26.3	33.15	500	1	1	0	0	0
56	99 10 10	1.0	4.07	-87.00	4	5	2	26.2	33.40	10	3	2	1	4	0
56	99 10 10	1.0	4.07	-87.00	4	5	2	26.2	33.40	20	3	6	3	2	0
56	99 10 10	1.0	4.07	-87.00	4	5	2	26.2	33.40	30	2	3	0	0	0
56	99 10 10	1.0	4.07	-87.00	4	5	2	26.2	33.40	100	4	20	0	0	0
56	99 10 10	1.0	4.07	-87.00	4	5	2	26.2	33.40	300	1	1	0	0	0
57	99 10 11	1.0	1.48	-88.67	4	5	2	25.3	33.61	20	1	2	1	5	0
57	99 10 11	1.0	1.48	-88.67	4	5	2	25.3	33.61	100	6	77	2	2	0
58	99 10 12	1.0	-0.30	-90.92	4	5	3	20.4	34.35	500	1	0	2	3	0
58	99 10 12	1.0	-0.30	-90.92	4	5	3	20.4	34.35	500	1	0	3	3	0
59	99 10 18	1.0	-4.12	-92.48	4	2	2	20.5	34.49	20	1	1	1	4	0
59	99 10 18	1.0	-4.12	-92.48	4	2	2	20.5	34.49	30	1	1	0	0	0
59	99 10 18	1.0	-4.12	-92.48	4	2	2	20.5	34.49	100	6	25	0	0	0
59	99 10 18	1.0	-4.12	-92.48	4	2	2	20.5	34.49	300	1	0	0	0	0
59	99 10 18	1.0	-4.12	-92.48	4	2	2	20.5	34.49	500	8	1	0	0	0
60	99 10 19	1.0	-6.87	-94.27	4	2	2	20.7	34.84	30	1	0	1	4	0
60	99 10 19	1.0	-6.87	-94.27	4	2	2	20.7	34.84	100	4	6	2	3	0
60	99 10 19	1.0	-6.87	-94.27	4	2	2	20.7	34.84	300	1	0	3	1	0
60	99 10 19	1.0	-6.87	-94.27	4	2	2	20.7	34.84	500	3	8	0	0	0
61	99 10 20	1.0	-9.20	-95.62	5	3	2	21.5	35.32	20	2	5	1	4	0
61	99 10 20	1.0	-9.20	-95.62	5	3	2	21.5	35.32	30	2	3	2	3	0
61	99 10 20	1.0	-9.20	-95.62	5	3	2	21.5	35.32	100	4	7	3	1	0
61	99 10 20	1.0	-9.20	-95.62	5	3	2	21.5	35.32	500	1	1	0	0	0
62	99 10 21	1.0	-10.38	-93.17	3	3	2	21.0	35.36	20	1	1	1	4	0
62	99 10 21	1.0	-10.38	-93.17	3	3	2	21.0	35.36	100	4	11	2	3	0
62	99 10 21	1.0	-10.38	-93.17	3	3	2	21.0	35.36	500	4	13	0	0	0
63	99 10 22	1.0	-11.73	-90.75	4	4	2	19.9	35.34	20	1	0	1	4	0
63	99 10 22	1.0	-11.73	-90.75	4	4	2	19.9	35.34	100	4	9	2	3	0
63	99 10 22	1.0	-11.73	-90.75	4	4	2	19.9	35.34	300	1	0	0	0	0
63	99 10 22	1.0	-11.73	-90.75	4	4	2	19.9	35.34	500	3	3	0	0	0
64	99 10 23	1.0	-13.23	-88.08	3	4	2	19.8	35.51	100	4	14	1	4	0
64	99 10 23	1.0	-13.23	-88.08	3	4	2	19.8	35.51	500	5	20	2	3	0
65	99 10 24	1.0	-14.03	-85.42	3	4	2	19.3	35.41	5	1	0	1	4	0
65	99 10 24	1.0	-14.03	-85.42	3	4	2	19.3	35.41	100	4	13	2	2	0
65	99 10 24	1.0	-14.03	-85.42	3	4	2	19.3	35.41	500	3	4	0	0	0
66	99 10 25	1.0	-14.05	-82.50	3	5	2	18.8	35.30	90	7	23	1	4	0
66	99 10 25	1.0	-14.05	-82.50	3	5	2	18.8	35.30	100	5	9	2	2	0
67	99 10 26	1.0	-14.28	-79.90	4	5	2	18.8	35.13	80	7	101	1	5	0
67	99 10 26	1.0	-14.28	-79.90	4	5	2	18.8	35.13	100	5	16	2	2	0
68	99 10 27	1.0	-13.32	-77.23	3	5	2	17.2	34.68	80	6	25	1	4	0
68	99 10 27	1.0	-13.32	-77.23	3	5	2	17.2	34.68	100	4	0	0	0	0
69	99 11 01	1.0	-11.80	-78.20	5	5	3	18.6	34.94	90	6	19	1	3	0

Table 6. (Jordan dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
69	99 11 01	1.0	-11.80	-78.20	5	5	3	18.6	34.94	500	1	1	3	1	0
70	99 11 02	1.0	-11.02	-81.33	5	5	3	19.9	35.02	20	1	1	1	4	0
70	99 11 02	1.0	-11.02	-81.33	5	5	3	19.9	35.02	30	1	1	2	1	0
70	99 11 02	1.0	-11.02	-81.33	5	5	3	19.9	35.02	90	6	17	0	0	0
70	99 11 02	1.0	-11.02	-81.33	5	5	3	19.9	35.02	100	3	3	0	0	0
70	99 11 02	1.0	-11.02	-81.33	5	5	3	19.9	35.02	500	2	2	0	0	0
71	99 11 03	1.0	-10.43	-84.40	5	5	2	20.3	35.19	20	1	0	1	4	0
71	99 11 03	1.0	-10.43	-84.40	5	5	2	20.3	35.19	90	6	30	2	4	0
71	99 11 03	1.0	-10.43	-84.40	5	5	2	20.3	35.19	100	4	10	0	0	0
72	99 11 04	1.0	-7.32	-84.45	4	5	1	20.6	34.99	10	1	1	1	3	0
72	99 11 04	1.0	-7.32	-84.45	4	5	1	20.6	34.99	20	1	2	2	2	0
72	99 11 04	1.0	-7.32	-84.45	4	5	1	20.6	34.99	30	1	1	0	0	0
72	99 11 04	1.0	-7.32	-84.45	4	5	1	20.6	34.99	90	6	18	0	0	0
72	99 11 04	1.0	-7.32	-84.45	4	5	1	20.6	34.99	100	3	2	0	0	0
72	99 11 04	1.0	-7.32	-84.45	4	5	1	20.6	34.99	300	1	0	0	0	0
72	99 11 04	1.0	-7.32	-84.45	4	5	1	20.6	34.99	500	8	3	0	0	0
73	99 11 05	1.0	-5.60	-85.85	4	5	2	20.7	34.84	20	2	5	1	3	0
73	99 11 05	1.0	-5.60	-85.85	4	5	2	20.7	34.84	90	5	5	2	2	0
73	99 11 05	1.0	-5.60	-85.85	4	5	2	20.7	34.84	100	4	5	3	1	0
73	99 11 05	1.0	-5.60	-85.85	4	5	2	20.7	34.84	400	1	1	0	0	0
74	99 11 06	0.9	-5.48	-84.83	4	5	2	20.0	34.73	10	1	1	1	3	0
74	99 11 06	0.9	-5.48	-84.83	4	5	2	20.0	34.73	20	1	1	2	3	0
74	99 11 06	0.9	-5.48	-84.83	4	5	2	20.0	34.73	30	2	3	3	1	0
74	99 11 06	0.9	-5.48	-84.83	4	5	2	20.0	34.73	100	1	0	0	0	0
75	99 11 06	1.0	-5.35	-83.65	4	5	3	19.5	34.89	0	0	0	2	2	0
75	99 11 06	1.0	-5.35	-83.65	4	5	3	19.5	34.89	90	4	0	1	4	0
76	99 11 07	1.0	-4.73	-81.60	3	5	1	15.1	34.87	90	5	8	1	4	0
76	99 11 07	1.0	-4.73	-81.60	3	5	1	15.1	34.87	500	1	1	0	0	0
77	99 11 08	1.0	-3.00	-83.77	2	5	1	18.0	34.75	0	0	0	3	2	0
77	99 11 08	1.0	-3.00	-83.77	2	5	1	18.0	34.75	90	2	3	1	1	0
77	99 11 08	1.0	-3.00	-83.77	2	5	1	18.0	34.75	100	4	11	2	1	0
78	99 11 09	1.0	-0.67	-86.35	3	5	3	19.5	34.45	100	5	36	2	3	0
78	99 11 09	1.0	-0.67	-86.35	3	5	3	19.5	34.45	300	1	0	0	0	0
78	99 11 09	1.0	-0.67	-86.35	3	5	3	19.5	34.45	500	2	4	0	0	0
78	99 11 09	1.0	-0.67	-86.35	3	5	3	19.5	34.45	500	1	2	0	0	0
79	99 11 10	1.0	1.43	-87.05	3	5	3	24.9	33.67	10	1	2	1	4	0
79	99 11 10	1.0	1.43	-87.05	3	5	3	24.9	33.67	20	1	1	2	3	0
79	99 11 10	1.0	1.43	-87.05	3	5	3	24.9	33.67	30	1	2	3	1	0
79	99 11 10	1.0	1.43	-87.05	3	5	3	24.9	33.67	80	1	2	0	0	0
79	99 11 10	1.0	1.43	-87.05	3	5	3	24.9	33.67	100	6	32	0	0	0
79	99 11 10	1.0	1.43	-87.05	3	5	3	24.9	33.67	400	1	3	0	0	0
80	99 11 11	0.8	2.38	-86.53	3	5	3	26.0	33.56	10	4	7	2	3	0
80	99 11 11	0.8	2.38	-86.53	3	5	3	26.0	33.56	30	2	4	3	1	0
80	99 11 11	0.8	2.38	-86.53	3	5	3	26.0	33.56	100	2	1	0	0	0
80	99 11 11	0.8	2.38	-86.53	3	5	3	26.0	33.56	400	3	0	0	0	0
81	99 11 11	1.0	3.87	-85.48	3	5	3	26.3	33.58	10	3	8	1	4	0
81	99 11 11	1.0	3.87	-85.48	3	5	3	26.3	33.58	20	2	6	2	4	0

Table 6. (Jordan dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
81	99 11 11	1.0	3.87	-85.48	3	5	3	26.3	33.58	30	1	0	0	0	0
81	99 11 11	1.0	3.87	-85.48	3	5	3	26.3	33.58	100	5	8	0	0	0
81	99 11 11	1.0	3.87	-85.48	3	5	3	26.3	33.58	300	1	0	0	0	0
81	99 11 11	1.0	3.87	-85.48	3	5	3	26.3	33.58	400	1	1	0	0	0
82	99 11 12	0.8	4.87	-84.90	4	5	3	26.4	33.18	10	1	1	1	1	0
82	99 11 12	0.8	4.87	-84.90	4	5	3	26.4	33.18	20	2	4	2	2	0
82	99 11 12	0.8	4.87	-84.90	4	5	3	26.4	33.18	100	1	1	0	0	0
82	99 11 12	0.8	4.87	-84.90	4	5	3	26.4	33.18	400	1	1	0	0	0
83	99 11 12	1.0	5.88	-83.17	5	5	3	26.6	32.90	10	4	9	1	4	0
83	99 11 12	1.0	5.88	-83.17	5	5	3	26.6	32.90	20	4	16	2	3	0
83	99 11 12	1.0	5.88	-83.17	5	5	3	26.6	32.90	30	2	5	0	0	0
83	99 11 12	1.0	5.88	-83.17	5	5	3	26.6	32.90	100	5	10	0	0	0
83	99 11 12	1.0	5.88	-83.17	5	5	3	26.6	32.90	500	1	0	0	0	0
84	99 11 13	1.0	5.87	-81.87	4	5	3	26.6	32.84	10	3	5	1	3	0
84	99 11 13	1.0	5.87	-81.87	4	5	3	26.6	32.84	20	4	18	2	2	0
84	99 11 13	1.0	5.87	-81.87	4	5	3	26.6	32.84	30	1	1	0	0	0
84	99 11 13	1.0	5.87	-81.87	4	5	3	26.6	32.84	100	3	4	0	0	0
85	99 11 13	1.0	5.82	-79.92	3	5	3	26.5	30.85	10	3	4	1	4	0
85	99 11 13	1.0	5.82	-79.92	3	5	3	26.5	30.85	20	3	7	2	3	0
85	99 11 13	1.0	5.82	-79.92	3	5	3	26.5	30.85	100	4	8	3	1	0
85	99 11 13	1.0	5.82	-79.92	3	5	3	26.5	30.85	300	1	0	0	0	0
85	99 11 13	1.0	5.82	-79.92	3	5	3	26.5	30.85	400	2	2	0	0	0
86	99 11 14	0.5	6.63	-78.93	3	5	3	26.6	27.58	30	1	0	0	0	0
86	99 11 14	0.5	6.63	-78.93	3	5	3	26.6	27.58	90	2	5	0	0	0
86	99 11 14	0.5	6.63	-78.93	3	5	3	26.6	27.58	400	1	2	0	0	0
86	99 11 14	0.5	6.63	-78.93	3	5	3	26.6	27.58	500	1	1	0	0	0
87	99 11 14	1.0	7.80	-78.55	3	2	2	26.7	27.47	15	1	1	2	2	0
87	99 11 14	1.0	7.80	-78.55	3	2	2	26.7	27.47	80	1	1	0	0	0
87	99 11 14	1.0	7.80	-78.55	3	2	2	26.7	27.47	90	1	1	0	0	0
87	99 11 14	1.0	7.80	-78.55	3	2	2	26.7	27.47	90	1	2	0	0	0
87	99 11 14	1.0	7.80	-78.55	3	2	2	26.7	27.47	400	1	3	0	0	0
87	99 11 14	1.0	7.80	-78.55	3	2	2	26.7	27.47	500	1	3	0	0	0
87	99 11 14	1.0	7.80	-78.55	3	2	2	26.7	27.47	500	2	3	0	0	0
87	99 11 14	1.0	7.80	-78.55	3	2	2	26.7	27.47	500	2	3	0	0	0
87	99 11 14	1.0	7.80	-78.55	3	2	2	26.7	27.47	500	1	1	0	0	0
87	99 11 14	1.0	7.80	-78.55	3	2	2	26.7	27.47	500	1	1	0	0	0
87	99 11 14	1.0	7.80	-78.55	3	2	2	26.7	27.47	900	1	0	0	0	0
88	99 11 19	1.0	6.55	-80.80	3	3	2	27.0	30.56	10	1	3	2	5	0
88	99 11 19	1.0	6.55	-80.80	3	3	2	27.0	30.56	20	1	2	3	4	0
88	99 11 19	1.0	6.55	-80.80	3	3	2	27.0	30.56	100	3	2	0	0	0
88	99 11 19	1.0	6.55	-80.80	3	3	2	27.0	30.56	200	1	2	0	0	0
88	99 11 19	1.0	6.55	-80.80	3	3	2	27.0	30.56	200	8	1	0	0	0
88	99 11 19	1.0	6.55	-80.80	3	3	2	27.0	30.56	400	4	0	0	0	0
88	99 11 19	1.0	6.55	-80.80	3	3	2	27.0	30.56	500	1	2	0	0	0
88	99 11 19	1.0	6.55	-80.80	3	3	2	27.0	30.56	500	1	1	0	0	0
89	99 11 20	1.0	6.92	-83.85	4	5	3	26.9	32.88	10	3	7	1	3	0
89	99 11 20	1.0	6.92	-83.85	4	5	3	26.9	32.88	20	3	10	2	4	0

Table 6. (Jordan dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
89	99 11 20	1.0	6.92	-83.85	4	5	3	26.9	32.88	30	2	4	0	0	0
89	99 11 20	1.0	6.92	-83.85	4	5	3	26.9	32.88	100	4	9	0	0	0
89	99 11 20	1.0	6.92	-83.85	4	5	3	26.9	32.88	300	1	0	0	0	0
89	99 11 20	1.0	6.92	-83.85	4	5	3	26.9	32.88	400	1	2	0	0	0
90	99 11 21	1.0	7.08	-85.12	3	5	2	26.2	32.79	10	3	4	1	3	0
90	99 11 21	1.0	7.08	-85.12	3	5	2	26.2	32.79	20	4	6	2	1	0
90	99 11 21	1.0	7.08	-85.12	3	5	2	26.2	32.79	30	4	11	3	1	0
90	99 11 21	1.0	7.08	-85.12	3	5	2	26.2	32.79	90	8	3	0	0	0
90	99 11 21	1.0	7.08	-85.12	3	5	2	26.2	32.79	100	2	1	0	0	0
90	99 11 21	1.0	7.08	-85.12	3	5	2	26.2	32.79	400	1	1	0	0	0
91	99 11 21	1.0	7.42	-86.80	1	4	2	27.0	32.92	10	4	12	1	2	0
91	99 11 21	1.0	7.42	-86.80	1	4	2	27.0	32.92	20	3	9	2	5	0
91	99 11 21	1.0	7.42	-86.80	1	4	2	27.0	32.92	30	2	3	3	1	0
91	99 11 21	1.0	7.42	-86.80	1	4	2	27.0	32.92	80	3	4	0	0	0
91	99 11 21	1.0	7.42	-86.80	1	4	2	27.0	32.92	100	3	0	0	0	0
91	99 11 21	1.0	7.42	-86.80	1	4	2	27.0	32.92	300	1	0	0	0	0
91	99 11 21	1.0	7.42	-86.80	1	4	2	27.0	32.92	400	1	0	0	0	0
92	99 11 22	0.9	7.48	-88.08	0	4	2	27.0	32.63	10	2	3	2	1	0
92	99 11 22	0.9	7.48	-88.08	0	4	2	27.0	32.63	20	2	5	3	1	0
92	99 11 22	0.9	7.48	-88.08	0	4	2	27.0	32.63	90	1	1	0	0	0
93	99 11 22	1.0	7.63	-89.48	2	4	2	27.8	32.78	10	1	3	1	2	0
93	99 11 22	1.0	7.63	-89.48	2	4	2	27.8	32.78	20	1	2	2	5	0
93	99 11 22	1.0	7.63	-89.48	2	4	2	27.8	32.78	30	1	1	3	1	0
93	99 11 22	1.0	7.63	-89.48	2	4	2	27.8	32.78	100	1	0	0	0	0
93	99 11 22	1.0	7.63	-89.48	2	4	2	27.8	32.78	400	1	0	0	0	0
93	99 11 22	1.0	7.63	-89.48	2	4	2	27.8	32.78	500	1	0	0	0	0
94	99 11 23	1.0	7.83	-90.77	0	4	2	27.5	32.47	0	0	0	3	2	0
94	99 11 23	1.0	7.83	-90.77	0	4	2	27.5	32.47	20	1	1	1	1	0
94	99 11 23	1.0	7.83	-90.77	0	4	2	27.5	32.47	90	3	6	2	4	0
95	99 11 23	1.0	8.02	-92.27	1	4	2	27.8	32.67	10	3	8	1	2	0
95	99 11 23	1.0	8.02	-92.27	1	4	2	27.8	32.67	20	1	1	2	5	0
95	99 11 23	1.0	8.02	-92.27	1	4	2	27.8	32.67	100	4	7	3	1	0
95	99 11 23	1.0	8.02	-92.27	1	4	2	27.8	32.67	200	1	2	0	0	0
95	99 11 23	1.0	8.02	-92.27	1	4	2	27.8	32.67	300	1	1	0	0	0
95	99 11 23	1.0	8.02	-92.27	1	4	2	27.8	32.67	400	1	1	0	0	0
96	99 11 24	1.0	8.20	-93.58	0	4	1	27.2	32.89	0	0	0	2	4	0
96	99 11 24	1.0	8.20	-93.58	0	4	1	27.2	32.89	0	0	0	3	1	0
96	99 11 24	1.0	8.20	-93.58	0	4	1	27.2	32.89	30	1	1	1	1	0
97	99 11 24	1.0	8.47	-94.87	2	5	2	27.0	33.03	10	6	16	1	2	0
97	99 11 24	1.0	8.47	-94.87	2	5	2	27.0	33.03	20	3	10	2	4	0
97	99 11 24	1.0	8.47	-94.87	2	5	2	27.0	33.03	100	2	0	3	1	0
97	99 11 24	1.0	8.47	-94.87	2	5	2	27.0	33.03	200	4	1	0	0	0
97	99 11 24	1.0	8.47	-94.87	2	5	2	27.0	33.03	300	1	1	0	0	0
98	99 11 25	1.0	8.50	-96.18	0	4	2	27.1	33.10	10	1	0	2	3	0
98	99 11 25	1.0	8.50	-96.18	0	4	2	27.1	33.10	20	1	1	3	2	0
99	99 11 25	1.0	8.87	-97.90	3	5	2	27.3	33.28	10	3	3	1	5	0
99	99 11 25	1.0	8.87	-97.90	3	5	2	27.3	33.28	30	1	1	2	4	0

Table 6. (Jordan dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
99	99 11 25	1.0	8.87	-97.90	3	5	2	27.3	33.28	100	4	12	0	0	0
100	99 11 26	1.0	8.98	-99.37	0	3	2	27.0	33.16	0	0	0	2	4	0
100	99 11 26	1.0	8.98	-99.37	0	3	2	27.0	33.16	0	0	0	3	1	0
100	99 11 26	1.0	8.98	-99.37	0	3	2	27.0	33.16	20	1	1	1	1	0
101	99 11 26	1.0	9.27	-101.35	3	5	1	27.1	33.40	10	4	9	1	5	0
101	99 11 26	1.0	9.27	-101.35	3	5	1	27.1	33.40	20	4	12	2	4	0
101	99 11 26	1.0	9.27	-101.35	3	5	1	27.1	33.40	30	4	17	0	0	0
101	99 11 26	1.0	9.27	-101.35	3	5	1	27.1	33.40	100	4	1	0	0	0
101	99 11 26	1.0	9.27	-101.35	3	5	1	27.1	33.40	300	2	2	0	0	0
101	99 11 26	1.0	9.27	-101.35	3	5	1	27.1	33.40	400	4	2	0	0	0
101	99 11 26	1.0	9.27	-101.35	3	5	1	27.1	33.40	500	1	1	0	0	0
102	99 11 27	0.9	9.43	-102.82	4	2	2	28.4	32.54	5	1	0	2	1	0
102	99 11 27	0.9	9.43	-102.82	4	2	2	28.4	32.54	30	1	2	3	1	0
102	99 11 27	0.9	9.43	-102.82	4	2	2	28.4	32.54	500	1	1	0	0	0
103	99 11 27	1.0	9.65	-104.90	4	5	2	27.8	33.17	10	4	9	1	2	0
103	99 11 27	1.0	9.65	-104.90	4	5	2	27.8	33.17	20	2	0	2	3	0
103	99 11 27	1.0	9.65	-104.90	4	5	2	27.8	33.17	30	1	1	0	0	0
103	99 11 27	1.0	9.65	-104.90	4	5	2	27.8	33.17	100	3	4	0	0	0
104	99 11 28	0.7	9.92	-106.33	4	2	2	27.7	33.16	10	1	2	2	2	0
104	99 11 28	0.7	9.92	-106.33	4	2	2	27.7	33.16	20	1	0	3	1	0
104	99 11 28	0.7	9.92	-106.33	4	2	2	27.7	33.16	30	8	2	0	0	0
105	99 11 28	1.0	10.32	-108.28	4	5	2	27.7	33.18	10	2	3	1	2	0
105	99 11 28	1.0	10.32	-108.28	4	5	2	27.7	33.18	30	1	1	2	4	0
105	99 11 28	1.0	10.32	-108.28	4	5	2	27.7	33.18	100	4	11	3	2	0
105	99 11 28	1.0	10.32	-108.28	4	5	2	27.7	33.18	300	1	0	0	0	0
105	99 11 28	1.0	10.32	-108.28	4	5	2	27.7	33.18	400	1	0	0	0	0
106	99 11 29	0.5	10.30	-109.23	4	2	1	27.5	33.06	10	2	2	0	0	0
106	99 11 29	0.5	10.30	-109.23	4	2	1	27.5	33.06	90	1	0	0	0	0
106	99 11 29	0.5	10.30	-109.23	4	2	1	27.5	33.06	500	1	1	0	0	0
107	99 11 29	1.0	10.57	-109.30	4	5	2	27.5	32.95	10	3	5	1	3	0
107	99 11 29	1.0	10.57	-109.30	4	5	2	27.5	32.95	30	1	1	2	3	0
107	99 11 29	1.0	10.57	-109.30	4	5	2	27.5	32.95	80	2	0	3	1	0
107	99 11 29	1.0	10.57	-109.30	4	5	2	27.5	32.95	100	4	9	0	0	0
107	99 11 29	1.0	10.57	-109.30	4	5	2	27.5	32.95	300	1	0	0	0	0
107	99 11 29	1.0	10.57	-109.30	4	5	2	27.5	32.95	400	1	2	0	0	0
108	99 11 30	1.0	13.62	-110.70	4	5	2	27.8	33.39	10	4	14	1	4	0
108	99 11 30	1.0	13.62	-110.70	4	5	2	27.8	33.39	20	2	3	2	3	0
108	99 11 30	1.0	13.62	-110.70	4	5	2	27.8	33.39	30	2	3	3	1	0
108	99 11 30	1.0	13.62	-110.70	4	5	2	27.8	33.39	100	4	5	0	0	0
108	99 11 30	1.0	13.62	-110.70	4	5	2	27.8	33.39	300	1	0	0	0	0
109	99 12 01	1.0	15.02	-111.32	1	5	2	27.3	33.95	10	2	5	2	1	0
109	99 12 01	1.0	15.02	-111.32	1	5	2	27.3	33.95	20	1	1	3	1	0
109	99 12 01	1.0	15.02	-111.32	1	5	2	27.3	33.95	30	1	1	0	0	0
109	99 12 01	1.0	15.02	-111.32	1	5	2	27.3	33.95	100	1	1	0	0	0
110	99 12 01	1.0	16.70	-112.13	3	5	2	26.9	34.21	10	1	1	1	3	0
110	99 12 01	1.0	16.70	-112.13	3	5	2	26.9	34.21	20	2	0	2	4	0
110	99 12 01	1.0	16.70	-112.13	3	5	2	26.9	34.21	30	1	1	3	2	0

Table 6. (Jordan dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
110	99 12 01	1.0	16.70	-112.13	3	5	2	26.9	34.21	100	4	7	0	0	0
110	99 12 01	1.0	16.70	-112.13	3	5	2	26.9	34.21	300	1	0	0	0	0
111	99 12 02	1.0	13.28	-112.53	1	1	2	26.1	34.33	10	3	10	1	1	0
111	99 12 02	1.0	13.28	-112.53	1	1	2	26.1	34.33	20	1	1	2	1	0
111	99 12 02	1.0	13.28	-112.53	1	1	2	26.1	34.33	30	1	1	3	2	0
111	99 12 02	1.0	13.28	-112.53	1	1	2	26.1	34.33	100	1	1	0	0	0
111	99 12 02	1.0	13.28	-112.53	1	1	2	26.1	34.33	400	1	3	0	0	0
111	99 12 02	1.0	13.28	-112.53	1	1	2	26.1	34.33	500	1	1	0	0	0
111	99 12 02	1.0	13.28	-112.53	1	1	2	26.1	34.33	500	1	1	0	0	0
112	99 12 02	1.0	18.78	-111.33	3	5	2	26.2	34.45	10	5	25	1	5	0
112	99 12 02	1.0	18.78	-111.33	3	5	2	26.2	34.45	20	3	6	2	4	0
112	99 12 02	1.0	18.78	-111.33	3	5	2	26.2	34.45	30	2	3	3	2	0
112	99 12 02	1.0	18.78	-111.33	3	5	2	26.2	34.45	100	4	7	0	0	0
112	99 12 02	1.0	18.78	-111.33	3	5	2	26.2	34.45	300	1	0	0	0	0
112	99 12 02	1.0	18.78	-111.33	3	5	2	26.2	34.45	500	2	2	0	0	0
112	99 12 02	1.0	18.78	-111.33	3	5	2	26.2	34.45	500	1	1	0	0	0
113	99 12 03	1.0	19.30	-110.78	2	5	1	25.2	34.53	30	4	8	3	1	0
113	99 12 03	1.0	19.30	-110.78	2	5	1	25.2	34.53	80	4	4	0	0	0
113	99 12 03	1.0	19.30	-110.78	2	5	1	25.2	34.53	500	2	1	0	0	0
113	99 12 03	1.0	19.30	-110.78	2	5	1	25.2	34.53	500	4	5	0	0	0
113	99 12 03	1.0	19.30	-110.78	2	5	1	25.2	34.53	500	5	16	0	0	0
113	99 12 03	1.0	19.30	-110.78	2	5	1	25.2	34.53	500	8	4	0	0	0
113	99 12 03	1.0	19.30	-110.78	2	5	1	25.2	34.53	500	3	1	0	0	0
113	99 12 03	1.0	19.30	-110.78	2	5	1	25.2	34.53	500	5	2	0	0	0
113	99 12 03	1.0	19.30	-110.78	2	5	1	25.2	34.53	500	1	1	0	0	0
113	99 12 03	1.0	19.30	-110.78	2	5	1	25.2	34.53	500	1	1	0	0	0
113	99 12 03	1.0	19.30	-110.78	2	5	1	25.2	34.53	500	1	1	0	0	0
114	99 12 03	1.0	19.42	-111.28	3	5	2	25.0	34.53	10	2	3	1	4	0
114	99 12 03	1.0	19.42	-111.28	3	5	2	25.0	34.53	20	2	4	2	4	0
114	99 12 03	1.0	19.42	-111.28	3	5	2	25.0	34.53	30	2	1	0	0	0
114	99 12 03	1.0	19.42	-111.28	3	5	2	25.0	34.53	100	4	12	0	0	0
114	99 12 03	1.0	19.42	-111.28	3	5	2	25.0	34.53	400	1	1	0	0	0
115	99 12 04	1.0	19.80	-112.73	1	5	3	23.9	34.44	10	4	15	2	1	0
115	99 12 04	1.0	19.80	-112.73	1	5	3	23.9	34.44	30	1	1	0	0	0
115	99 12 04	1.0	19.80	-112.73	1	5	3	23.9	34.44	400	1	1	0	0	0
116	99 12 04	1.0	20.80	-114.20	3	5	2	22.2	34.12	100	3	8	1	2	0
116	99 12 04	1.0	20.80	-114.20	3	5	2	22.2	34.12	500	1	2	2	1	0
117	99 12 05	1.0	22.20	-114.85	0	5	3	21.6	34.03	0	0	0	0	0	0
118	99 12 05	1.0	24.12	-115.68	2	5	2	19.8	33.55	30	1	1	1	4	0
118	99 12 05	1.0	24.12	-115.68	2	5	2	19.8	33.55	100	4	30	2	2	0
119	99 12 06	1.0	24.93	-115.77	3	5	1	19.4	33.61	100	1	2	1	2	0
119	99 12 06	1.0	24.93	-115.77	3	5	1	19.4	33.61	500	1	1	0	0	0
119	99 12 06	1.0	24.93	-115.77	3	5	1	19.4	33.61	500	1	1	0	0	0
119	99 12 06	1.0	24.93	-115.77	3	5	1	19.4	33.61	500	1	1	0	0	0
120	99 12 06	1.0	24.92	-115.72	4	5	1	19.5	33.60	100	2	2	2	1	0
121	99 12 06	1.0	25.92	-116.52	4	5	2	18.8	33.51	0	0	0	3	1	0
121	99 12 06	1.0	25.92	-116.52	4	5	2	18.8	33.51	100	3	5	1	1	0

Table 6. (Jordan dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
122	99 12 07	1.0	27.43	-116.77	4	5	2	19.1	33.58	500	1	1	3	1	0

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

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

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

⁴ SST = Sea Surface Temperature (Celsius)

⁵ SSS = Sea Surface Salinity (practical salinity units)

⁶

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

⁷

- 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"

⁸

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

Table 7. Results of night-light dipnet sampling, *McArthur*, 28 July – 9 December 1999.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
1	99 07 29	1.0	29.92	-120.62	5	4	1	17.3	33.29	100	3	5	2	2	0
1	99 07 29	1.0	29.92	-120.62	5	4	1	17.3	33.29	500	1	1	0	0	0
2	99 07 30	1.0	27.42	-122.10	5	4	1	18.4	33.52	100	2	1	0	0	0
3	99 07 31	1.0	23.75	-122.08	5	5	2	20.8	34.00	100	2	1	0	0	0
4	99 08 01	1.0	20.32	-122.08	5	5	1	23.8	34.50	5	2	0	2	1	0
4	99 08 01	1.0	20.32	-122.08	5	5	1	23.8	34.50	20	1	1	0	0	0
4	99 08 01	1.0	20.32	-122.08	5	5	1	23.8	34.50	100	2	1	0	0	0
5	99 08 02	0.8	19.32	-122.08	4	2	2	24.5	34.47	10	1	1	2	1	0
5	99 08 02	0.8	19.32	-122.08	4	2	2	24.5	34.47	20	1	1	0	0	0
5	99 08 02	0.8	19.32	-122.08	4	2	2	24.5	34.47	30	1	0	0	0	0
	99 08 02	0.0	18.35	-122.17	-	-	-	-	-	20	0	1	0	0	0
6	99 08 02	1.0	17.07	-122.07	5	5	2	25.6	34.32	10	1	1	2	3	0
6	99 08 02	1.0	17.07	-122.07	5	5	2	25.6	34.32	30	1	1	0	0	0
6	99 08 02	1.0	17.07	-122.07	5	5	2	25.6	34.32	100	3	1	0	0	0
	99 08 03	0.0	16.12	-122.08	-	-	-	-	-	20	0	1	0	0	0
7	99 08 03	1.0	13.78	-122.05	5	5	2	27.3	33.67	5	1	0	3	1	0
7	99 08 03	1.0	13.78	-122.05	5	5	2	27.3	33.67	10	2	2	2	2	0
8	99 08 04	1.0	12.67	-122.10	4	5	2	27.6	33.02	10	1	0	1	1	0
8	99 08 04	1.0	12.67	-122.10	4	5	2	27.6	33.02	500	1	0	3	1	0
8	99 08 04	1.0	12.67	-122.10	4	5	2	27.6	33.02	100	3	5	0	0	0
9	99 08 04	1.0	10.63	-122.10	4	5	2	27.4	33.27	10	3	1	1	1	0
9	99 08 04	1.0	10.63	-122.10	4	5	2	27.4	33.27	20	1	1	2	2	0
9	99 08 04	1.0	10.63	-122.10	4	5	2	27.4	33.27	100	2	1	3	1	0
9	99 08 04	1.0	10.63	-122.10	4	5	2	27.4	33.27	300	1	0	0	0	0
10	99 08 05	1.0	9.53	-120.07	3	5	3	27.2	33.27	20	1	2	1	4	0
10	99 08 05	1.0	9.53	-120.07	3	5	3	27.2	33.27	30	2	3	2	2	0
10	99 08 05	1.0	9.53	-120.07	3	5	3	27.2	33.27	100	3	0	0	0	0
	99 08 05	0.0	7.33	-122.10	-	-	-	-	-	30	0	1	0	0	0
11	99 08 05	1.0	7.25	-122.03	4	5	1	27.1	34.50	10	2	1	0	0	0
11	99 08 05	1.0	7.25	-122.03	4	5	1	27.1	34.50	20	2	1	0	0	0
11	99 08 05	1.0	7.25	-122.03	4	5	1	27.1	34.50	30	3	1	0	0	0
11	99 08 05	1.0	7.25	-122.03	4	5	1	27.1	34.50	100	4	5	0	0	0
12	99 08 06	0.8	7.15	-122.03	4	1	2	27.0	34.46	20	1	2	0	0	0
12	99 08 06	0.8	7.15	-122.03	4	1	2	27.0	34.46	30	3	0	0	0	0
12	99 08 06	0.8	7.15	-122.03	4	1	2	27.0	34.46	300	1	0	0	0	0
12	99 08 06	0.8	7.15	-122.03	4	1	2	27.0	34.46	400	2	0	0	0	0
12	99 08 06	0.8	7.15	-122.03	4	1	2	27.0	34.46	10	1	2	0	0	0
	99 08 06	0.0	7.15	-122.03	-	-	-	-	-	30	0	1	0	0	0
	99 08 06	0.0	7.15	-122.03	-	-	-	-	-	20	0	1	0	0	0
13	99 08 06	1.0	4.93	-122.10	4	5	1	25.9	34.30	20	1	2	1	3	0
13	99 08 06	1.0	4.93	-122.10	4	5	1	25.9	34.30	30	1	1	2	4	0
13	99 08 06	1.0	4.93	-122.10	4	5	1	25.9	34.30	100	4	9	0	0	0
14	99 08 07	0.8	3.85	-122.10	4	1	2	25.6	34.32	30	1	1	1	1	0
14	99 08 07	0.8	3.85	-122.10	4	1	2	25.6	34.32	20	1	0	2	3	0
14	99 08 07	0.8	3.85	-122.10	4	1	2	25.6	34.32	10	1	0	3	2	0
14	99 08 07	0.8	3.85	-122.10	4	1	2	25.6	34.32	100	1	0	0	0	0
15	99 08 07	1.0	3.55	-123.03	5	5	1	25.6	34.30	5	1	0	2	1	0

Table 7. (*McArthur* dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
15	99 08 07	1.0	3.55	-123.03	5	5	1	25.6	34.30	100	1	2	0	0	0
16	99 08 08	0.8	3.57	-123.03	4	1	2	25.5	34.33	10	1	0	2	1	0
16	99 08 08	0.8	3.57	-123.03	4	1	2	25.5	34.33	100	1	0	0	0	0
17	99 08 08	1.0	5.15	-124.22	3	5	1	25.9	34.31	5	1	0	2	2	0
17	99 08 08	1.0	5.15	-124.22	3	5	1	25.9	34.31	100	3	3	0	0	0
18	99 08 09	0.7	7.03	-125.72	3	5	4	-	-	100	4	1	2	1	0
18	99 08 09	0.7	7.03	-125.72	3	5	4	-	-	500	3	6	0	0	0
18	99 08 09	0.7	7.03	-125.72	3	5	4	-	-	30	2	1	0	0	0
19	99 08 10	1.0	7.85	-126.37	5	5	3	27.3	34.08	10	1	0	0	0	0
19	99 08 10	1.0	7.85	-126.37	5	5	3	27.3	34.08	20	1	1	0	0	0
19	99 08 10	1.0	7.85	-126.37	5	5	3	27.3	34.08	30	1	0	0	0	0
19	99 08 10	1.0	7.85	-126.37	5	5	3	27.3	34.08	100	1	2	0	0	0
19	99 08 10	1.0	7.85	-126.37	5	5	3	27.3	34.08	500	2	0	0	0	0
20	99 08 10	1.0	9.27	-127.72	1	5	2	27.6	33.27	10	4	5	1	1	0
20	99 08 10	1.0	9.27	-127.72	1	5	2	27.6	33.27	20	2	1	2	3	0
20	99 08 10	1.0	9.27	-127.72	1	5	2	27.6	33.27	100	4	9	3	1	0
20	99 08 10	1.0	9.27	-127.72	1	5	2	27.6	33.27	500	1	0	0	0	0
21	99 08 11	1.0	8.65	-128.73	3	5	3	27.4	33.59	10	2	0	1	2	0
21	99 08 11	1.0	8.65	-128.73	3	5	3	27.4	33.59	20	1	1	2	2	0
21	99 08 11	1.0	8.65	-128.73	3	5	3	27.4	33.59	30	1	3	0	0	0
21	99 08 11	1.0	8.65	-128.73	3	5	3	27.4	33.59	100	1	1	0	0	0
21	99 08 11	1.0	8.65	-128.73	3	5	3	27.4	33.59	300	1	0	0	0	0
21	99 08 11	1.0	8.65	-128.73	3	5	3	27.4	33.59	400	2	0	0	0	0
21	99 08 11	1.0	8.65	-128.73	3	5	3	27.4	33.59	500	1	0	0	0	0
22	99 08 11	1.0	7.60	-130.48	3	5	3	27.4	34.10	10	1	0	1	2	0
22	99 08 11	1.0	7.60	-130.48	3	5	3	27.4	34.10	20	2	4	2	1	0
22	99 08 11	1.0	7.60	-130.48	3	5	3	27.4	34.10	30	2	1	0	0	0
22	99 08 11	1.0	7.60	-130.48	3	5	3	27.4	34.10	100	2	0	0	0	0
22	99 08 11	1.0	7.60	-130.48	3	5	3	27.4	34.10	400	1	0	0	0	0
23	99 08 12	1.0	7.10	-131.42	3	5	3	27.4	34.54	20	1	2	1	3	0
23	99 08 12	1.0	7.10	-131.42	3	5	3	27.4	34.54	30	1	1	2	4	0
23	99 08 12	1.0	7.10	-131.42	3	5	3	27.4	34.54	100	2	2	0	0	0
23	99 08 12	1.0	7.10	-131.42	3	5	3	27.4	34.54	400	4	0	0	0	0
24	99 08 12	1.0	6.10	-133.15	4	5	3	27.5	34.64	10	2	1	2	2	0
24	99 08 12	1.0	6.10	-133.15	4	5	3	27.5	34.64	20	2	3	0	0	0
24	99 08 12	1.0	6.10	-133.15	4	5	3	27.5	34.64	30	4	5	0	0	0
24	99 08 12	1.0	6.10	-133.15	4	5	3	27.5	34.64	100	4	6	0	0	0
25	99 08 13	0.8	5.53	-134.15	4	5	2	26.6	34.82	10	2	1	1	2	0
25	99 08 13	0.8	5.53	-134.15	4	5	2	26.6	34.82	20	3	2	0	0	0
25	99 08 13	0.8	5.53	-134.15	4	5	2	26.6	34.82	30	2	1	0	0	0
26	99 08 13	1.0	4.48	-135.98	4	1	2	26.7	34.75	20	2	3	1	2	0
26	99 08 13	1.0	4.48	-135.98	4	1	2	26.7	34.75	30	2	0	2	2	0
26	99 08 13	1.0	4.48	-135.98	4	1	2	26.7	34.75	100	3	5	0	0	0
27	99 08 14	0.8	3.80	-137.20	4	5	2	26.5	34.74	20	2	2	1	2	0
27	99 08 14	0.8	3.80	-137.20	4	5	2	26.5	34.74	100	2	1	0	0	0
27	99 08 14	0.8	3.80	-137.20	4	5	2	26.5	34.74	10	1	0	0	0	0
28	99 08 14	1.0	5.05	-138.47	3	1	2	26.4	34.76	20	3	5	1	2	0

Table 7. (McArthur dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
28	99 08 14	1.0	5.05	-138.47	3	1	2	26.4	34.76	100	3	2	2	1	0
	99 08 15	0.0	6.32	-138.95	-	-	-	-	-	20	0	1	0	0	0
29	99 08 15	1.0	8.00	-139.60	4	5	2	27.8	34.18	10	1	3	2	3	0
29	99 08 15	1.0	8.00	-139.60	4	5	2	27.8	34.18	30	1	1	0	0	0
29	99 08 15	1.0	8.00	-139.60	4	5	2	27.8	34.18	100	4	15	0	0	0
30	99 08 16	0.9	8.58	-140.23	5	5	2	27.4	32.95	10	1	0	3	1	0
30	99 08 16	0.9	8.58	-140.23	5	5	2	27.4	32.95	20	1	1	2	2	0
31	99 08 16	1.0	5.83	-141.75	4	5	3	27.6	34.52	20	1	0	1	1	0
31	99 08 16	1.0	5.83	-141.75	4	5	3	27.6	34.52	100	3	7	2	2	0
31	99 08 16	1.0	5.83	-141.75	4	5	3	27.6	34.52	300	1	0	0	0	0
32	99 08 17	1.0	6.48	-142.53	5	5	3	27.6	34.57	10	1	0	1	2	0
32	99 08 17	1.0	6.48	-142.53	5	5	3	27.6	34.57	30	1	1	0	0	0
33	99 08 17	1.0	5.83	-144.02	5	2	2	27.5	34.68	20	4	7	1	2	0
33	99 08 17	1.0	5.83	-144.02	5	2	2	27.5	34.68	30	1	1	0	0	0
33	99 08 17	1.0	5.83	-144.02	5	2	2	27.5	34.68	300	1	0	0	0	0
	99 08 17	0.0	5.83	-144.02	-	-	-	-	-	20	0	1	0	0	0
	99 08 18	0.0	5.82	-144.52	-	-	-	-	-	20	0	1	0	0	0
34	99 08 18	0.9	5.82	-144.52	4	5	2	27.5	34.60	30	1	0	1	2	0
34	99 08 18	0.9	5.82	-144.52	4	5	2	27.5	34.60	20	3	4	2	1	0
34	99 08 18	0.9	5.82	-144.52	4	5	2	27.5	34.60	100	2	1	3	1	0
	99 08 18	0.0	6.22	-144.73	-	-	-	-	-	20	0	2	0	0	0
35	99 08 18	1.0	7.82	-145.40	3	2	2	27.8	33.54	10	1	1	0	0	0
35	99 08 18	1.0	7.82	-145.40	3	2	2	27.8	33.54	100	3	7	0	0	0
36	99 08 19	0.5	8.77	-145.90	2	5	3	27.8	33.26	10	1	1	0	0	0
36	99 08 19	0.5	8.77	-145.90	2	5	3	27.8	33.26	100	2	1	0	0	0
36	99 08 19	0.5	8.77	-145.90	2	5	3	27.8	33.26	30	1	1	0	0	0
37	99 08 19	1.0	10.20	-146.68	3	2	2	28.1	33.17	10	2	4	1	3	0
37	99 08 19	1.0	10.20	-146.68	3	2	2	28.1	33.17	100	5	16	2	4	0
37	99 08 19	1.0	10.20	-146.68	3	2	2	28.1	33.17	300	1	0	0	0	0
38	99 08 20	0.5	11.42	-147.12	4	5	1	27.5	33.37	10	1	0	1	2	0
38	99 08 20	0.5	11.42	-147.12	4	5	1	27.5	33.37	30	2	4	2	2	0
38	99 08 20	0.5	11.42	-147.12	4	5	1	27.5	33.37	100	2	0	3	2	0
39	99 08 20	0.8	9.95	-148.73	3	2	2	28.2	33.70	10	2	2	1	3	0
39	99 08 20	0.8	9.95	-148.73	3	2	2	28.2	33.70	100	5	10	2	3	0
39	99 08 20	0.8	9.95	-148.73	3	2	2	28.2	33.70	500	1	0	3	2	0
40	99 08 21	0.8	9.02	-148.47	4	5	2	27.7	33.81	500	1	0	1	2	0
40	99 08 21	0.8	9.02	-148.47	4	5	2	27.7	33.81	0	0	0	2	2	0
41	99 08 21	1.0	7.82	-150.73	5	3	2	27.9	33.90	30	1	0	1	2	0
41	99 08 21	1.0	7.82	-150.73	5	3	2	27.9	33.90	20	1	1	2	1	0
41	99 08 21	1.0	7.82	-150.73	5	3	2	27.9	33.90	100	4	6	0	0	0
41	99 08 21	1.0	7.82	-150.73	5	3	2	27.9	33.90	300	1	0	0	0	0
42	99 08 22	0.7	8.12	-151.33	3	5	2	-	-	10	1	0	2	2	0
42	99 08 22	0.7	8.12	-151.33	3	5	2	-	-	20	1	0	0	0	0
42	99 08 22	0.7	8.12	-151.33	3	5	2	-	-	30	1	1	0	0	0
43	99 08 22	1.0	8.90	-152.73	3	3	3	28.1	33.61	30	3	2	1	2	0
43	99 08 22	1.0	8.90	-152.73	3	3	3	28.1	33.61	100	3	6	2	3	0
43	99 08 22	1.0	8.90	-152.73	3	3	3	28.1	33.61	400	1	0	0	0	0

Table 7. (McArthur dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
44	99 08 23	1.0	12.90	-154.53	5	4	2	27.4	34.16	20	1	2	0	0	0
44	99 08 23	1.0	12.90	-154.53	5	4	2	27.4	34.16	30	1	1	0	0	0
44	99 08 23	1.0	12.90	-154.53	5	4	2	27.4	34.16	100	1	0	0	0	0
	99 08 23	0.0	12.90	-154.53	-	-	-	-	-	20	0	1	0	0	0
	99 08 24	0.0	15.67	-155.47	-	-	-	-	-	20	0	2	0	0	0
45	99 08 24	1.0	16.73	-155.65	6	4	2	25.4	34.72	20	5	15	0	0	0
45	99 08 24	1.0	16.73	-155.65	6	4	2	25.4	34.72	100	1	0	0	0	0
	99 08 24	0.0	16.73	-155.65	-	-	-	-	-	20	0	1	0	0	0
	99 08 24	0.0	16.73	-155.65	-	-	-	-	-	20	0	1	0	0	0
46	99 08 25	1.0	20.35	-156.67	7	4	1	26.2	34.89	5	1	0	0	0	0
46	99 08 25	1.0	20.35	-156.67	7	4	1	26.2	34.89	20	1	0	0	0	0
	99 09 03	0.0	16.97	-148.95	-	-	-	-	-	20	0	1	0	0	0
	99 09 04	0.0	14.50	-144.68	-	-	-	-	-	20	0	1	0	0	0
47	99 09 05	0.8	13.33	-141.88	4	1	2	26.8	33.97	20	1	0	2	1	0
47	99 09 05	0.8	13.33	-141.88	4	1	2	26.8	33.97	100	1	1	3	1	0
48	99 09 05	1.0	13.80	-139.72	5	5	2	27.0	33.53	10	1	2	1	2	0
48	99 09 05	1.0	13.80	-139.72	5	5	2	27.0	33.53	20	2	3	2	2	0
48	99 09 05	1.0	13.80	-139.72	5	5	2	27.0	33.53	100	4	13	1	3	0
49	99 09 06	0.9	13.95	-138.78	3	1	1	27.0	33.38	10	1	2	0	0	0
49	99 09 06	0.9	13.95	-138.78	3	1	1	27.0	33.38	20	1	0	0	0	0
49	99 09 06	0.9	13.95	-138.78	3	1	1	27.0	33.38	30	1	0	0	0	0
49	99 09 06	0.9	13.95	-138.78	3	1	1	27.0	33.38	100	3	2	0	0	0
50	99 09 06	1.0	14.40	-137.03	5	5	3	26.6	34.04	20	2	3	0	0	0
50	99 09 06	1.0	14.40	-137.03	5	5	3	26.6	34.04	100	4	6	0	0	0
50	99 09 06	1.0	14.40	-137.03	5	5	3	26.6	34.04	300	1	1	0	0	0
50	99 09 06	1.0	14.40	-137.03	5	5	3	26.6	34.04	500	1	0	0	0	0
51	99 09 07	0.9	14.50	-135.92	4	1	2	26.2	33.85	10	1	1	1	1	0
51	99 09 07	0.9	14.50	-135.92	4	1	2	26.2	33.85	20	1	0	2	2	0
51	99 09 07	0.9	14.50	-135.92	4	1	2	26.2	33.85	30	1	0	3	1	0
52	99 09 07	1.0	15.00	-133.65	4	5	2	26.5	33.72	20	1	1	1	2	0
52	99 09 07	1.0	15.00	-133.65	4	5	2	26.5	33.72	100	5	12	2	2	0
52	99 09 07	1.0	15.00	-133.65	4	5	2	26.5	33.72	0	0	0	3	1	0
	99 09 08	0.0	15.27	-132.10	-	-	-	-	-	30	0	1	0	0	0
53	99 09 08	1.0	15.60	-130.38	4	5	2	27.3	33.48	20	2	3	0	0	0
53	99 09 08	1.0	15.60	-130.38	4	5	2	27.3	33.48	30	1	1	0	0	0
53	99 09 08	1.0	15.60	-130.38	4	5	2	27.3	33.48	100	3	7	0	0	0
53	99 09 08	1.0	15.60	-130.38	4	5	2	27.3	33.48	400	1	1	0	0	0
54	99 09 09	0.9	15.45	-129.50	3	5	2	26.8	33.75	10	1	1	0	0	0
54	99 09 09	0.9	15.45	-129.50	3	5	2	26.8	33.75	20	2	3	0	0	0
54	99 09 09	0.9	15.45	-129.50	3	5	2	26.8	33.75	30	1	1	0	0	0
	99 09 09	0.0	14.18	-129.08	-	-	-	-	-	20	0	1	0	0	0
55	99 09 09	1.0	13.60	-129.00	1	5	3	27.7	33.91	10	1	2	1	3	0
55	99 09 09	1.0	13.60	-129.00	1	5	3	27.7	33.91	30	2	1	2	3	0
55	99 09 09	1.0	13.60	-129.00	1	5	3	27.7	33.91	100	5	17	3	1	0
56	99 09 10	0.9	12.30	-128.88	0	5	2	27.3	33.51	10	2	3	2	3	0
56	99 09 10	0.9	12.30	-128.88	0	5	2	27.3	33.51	30	1	1	1	3	0
57	99 09 10	1.0	10.30	-128.52	4	5	4	27.4	32.98	10	5	9	1	3	0

Table 7. (*McArthur* dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
57	99 09 10	1.0	10.30	-128.52	4	5	4	27.4	32.98	100	3	7	2	2	0
57	99 09 10	1.0	10.30	-128.52	4	5	4	27.4	32.98	0	0	0	3	1	0
58	99 09 11	0.8	8.95	-128.33	4	5	2	27.6	33.88	30	1	0	2	1	0
58	99 09 11	0.8	8.95	-128.33	4	5	2	27.6	33.88	100	2	0	0	0	0
59	99 09 11	1.0	6.73	-127.97	4	5	3	27.1	34.61	5	1	0	1	2	0
59	99 09 11	1.0	6.73	-127.97	4	5	3	27.1	34.61	20	1	2	2	2	0
59	99 09 11	1.0	6.73	-127.97	4	5	3	27.1	34.61	100	4	15	3	3	0
60	99 09 12	1.0	3.95	-126.80	5	5	3	25.5	34.48	20	2	5	2	3	0
60	99 09 12	1.0	3.95	-126.80	5	5	3	25.5	34.48	100	2	3	0	0	0
61	99 09 13	0.0	3.22	-125.93	5	5	2	25.8	34.61	20	0	2	0	0	0
61	99 09 13	0.0	3.22	-125.93	5	5	2	25.8	34.61	10	0	1	0	0	0
62	99 09 13	1.0	1.93	-124.65	5	1	2	25.7	34.63	20	2	3	2	2	0
62	99 09 13	1.0	1.93	-124.65	5	1	2	25.7	34.63	30	2	2	0	0	0
62	99 09 13	1.0	1.93	-124.65	5	1	2	25.7	34.63	100	3	5	0	0	0
62	99 09 13	1.0	1.93	-124.65	5	1	2	25.7	34.63	300	1	0	0	0	0
63	99 09 14	0.8	1.20	-123.88	4	5	2	24.4	34.36	10	1	1	0	0	0
63	99 09 14	0.8	1.20	-123.88	4	5	2	24.4	34.36	20	2	2	0	0	0
63	99 09 14	0.8	1.20	-123.88	4	5	2	24.4	34.36	30	2	2	0	0	0
63	99 09 14	0.8	1.20	-123.88	4	5	2	24.4	34.36	100	1	0	0	0	0
64	99 09 14	1.0	0.13	-122.65	3	1	2	22.2	34.70	20	1	2	2	2	0
64	99 09 14	1.0	0.13	-122.65	3	1	2	22.2	34.70	100	4	20	3	4	0
65	99 09 15	1.0	-2.25	-120.53	3	1	2	23.5	34.90	100	3	4	2	4	0
66	99 09 16	1.0	-3.10	-117.63	4	2	1	22.8	34.94	20	1	1	1	2	0
66	99 09 16	1.0	-3.10	-117.63	4	2	1	22.8	34.94	100	3	4	2	4	0
67	99 09 17	1.0	-2.20	-114.97	2	2	1	21.8	34.83	100	4	13	1	4	0
68	99 09 18	1.0	-1.25	-111.52	3	2	1	21.3	34.83	100	4	11	1	1	0
68	99 09 18	1.0	-1.25	-111.52	3	2	1	21.3	34.83	0	0	0	2	4	0
68	99 09 18	1.0	-1.25	-111.52	3	2	1	21.3	34.83	0	0	0	2	4	0
69	99 09 19	1.0	-0.52	-108.65	3	2	2	20.0	34.73	100	4	13	2	5	0
70	99 09 20	1.0	0.38	-105.48	0	3	1	19.0	34.63	100	2	2	3	2	0
71	99 09 21	1.0	1.27	-102.90	1	3	1	19.7	34.65	100	2	6	3	2	0
72	99 09 22	0.8	1.45	-101.90	4	5	1	24.0	33.97	100	2	2	0	0	0
73	99 09 22	1.0	1.95	-100.10	4	4	2	22.2	33.68	20	1	1	2	2	0
73	99 09 22	1.0	1.95	-100.10	4	4	2	22.2	33.68	30	1	0	3	1	0
73	99 09 22	1.0	1.95	-100.10	4	4	2	22.2	33.68	100	3	6	0	0	0
73	99 09 22	1.0	1.95	-100.10	4	4	2	22.2	33.68	400	1	0	0	0	0
74	99 09 23	0.7	2.30	-98.82	4	4	2	25.6	33.54	10	2	2	2	3	0
74	99 09 23	0.7	2.30	-98.82	4	4	2	25.6	33.54	20	2	1	3	2	0
74	99 09 23	0.7	2.30	-98.82	4	4	2	25.6	33.54	100	3	0	0	0	0
75	99 09 23	1.0	2.92	-96.58	3	4	2	26.2	33.49	20	1	1	1	1	0
75	99 09 23	1.0	2.92	-96.58	3	4	2	26.2	33.49	100	3	7	2	2	0
76	99 09 24	0.8	3.30	-95.23	4	4	2	26.3	33.46	5	1	0	2	4	0
76	99 09 24	0.8	3.30	-95.23	4	4	2	26.3	33.46	20	2	1	1	2	0
76	99 09 24	0.8	3.30	-95.23	4	4	2	26.3	33.46	100	3	0	0	0	0
77	99 09 24	1.0	3.90	-93.08	5	4	2	26.6	33.27	5	1	0	1	1	0
77	99 09 24	1.0	3.90	-93.08	5	4	2	26.6	33.27	10	1	3	2	3	0
77	99 09 24	1.0	3.90	-93.08	5	4	2	26.6	33.27	100	3	4	0	0	0

Table 7. (McArthur dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
77	99 09 24	1.0	3.90	-93.08	5	4	2	26.6	33.27	400	1	0	0	0	0
78	99 09 25	0.8	4.25	-91.78	5	4	2	26.5	33.22	20	1	1	0	0	0
78	99 09 25	0.8	4.25	-91.78	5	4	2	26.5	33.22	100	2	1	0	0	0
78	99 09 25	0.8	4.25	-91.78	5	4	2	26.5	33.22	30	1	0	0	0	0
79	99 09 26	0.9	5.35	-87.85	3	4	2	26.4	33.16	10	1	2	2	4	0
79	99 09 26	0.9	5.35	-87.85	3	4	2	26.4	33.16	20	2	2	0	0	0
79	99 09 26	0.9	5.35	-87.85	3	4	2	26.4	33.16	30	1	2	0	0	0
79	99 09 26	0.9	5.35	-87.85	3	4	2	26.4	33.16	100	2	1	0	0	0
79	99 09 26	0.9	5.35	-87.85	3	4	2	26.4	33.16	300	1	0	0	0	0
80	99 09 26	1.0	5.68	-86.97	4	5	3	26.4	33.35	10	2	6	1	5	0
80	99 09 26	1.0	5.68	-86.97	4	5	3	26.4	33.35	20	2	6	2	5	0
80	99 09 26	1.0	5.68	-86.97	4	5	3	26.4	33.35	30	2	2	3	3	0
80	99 09 26	1.0	5.68	-86.97	4	5	3	26.4	33.35	100	4	10	0	0	0
80	99 09 26	1.0	5.68	-86.97	4	5	3	26.4	33.35	500	2	6	0	0	0
80	99 09 26	1.0	5.68	-86.97	4	5	3	26.4	33.35	300	2	0	0	0	0
81	99 09 27	0.9	6.33	-86.63	4	5	3	26.2	33.35	20	2	1	1	2	0
81	99 09 27	0.9	6.33	-86.63	4	5	3	26.2	33.35	30	4	14	2	2	0
81	99 09 27	0.9	6.33	-86.63	4	5	3	26.2	33.35	300	1	0	0	0	0
82	99 09 27	1.0	7.80	-85.70	1	5	3	26.4	32.89	10	4	9	1	5	0
82	99 09 27	1.0	7.80	-85.70	1	5	3	26.4	32.89	20	2	1	2	5	0
82	99 09 27	1.0	7.80	-85.70	1	5	3	26.4	32.89	30	2	2	3	4	0
83	99 09 28	1.0	9.43	-84.87	4	5	3	25.8	32.38	5	1	0	1	3	0
83	99 09 28	1.0	9.43	-84.87	4	5	3	25.8	32.38	80	2	0	2	2	0
83	99 09 28	1.0	9.43	-84.87	4	5	3	25.8	32.38	90	1	0	3	2	0
84	99 10 05	1.0	8.60	-84.67	3	5	2	26.1	31.65	80	2	1	1	2	0
84	99 10 05	1.0	8.60	-84.67	3	5	2	26.1	31.65	30	1	0	2	3	0
84	99 10 05	1.0	8.60	-84.67	3	5	2	26.1	31.65	500	2	4	3	3	0
85	99 10 06	1.0	8.18	-87.02	4	5	2	26.8	32.51	10	1	1	1	8	0
85	99 10 06	1.0	8.18	-87.02	4	5	2	26.8	32.51	30	8	8	3	8	0
85	99 10 06	1.0	8.18	-87.02	4	5	2	26.8	32.51	500	1	0	0	0	0
86	99 10 07	1.0	10.53	-87.38	3	5	2	30.0	31.66	10	3	4	1	3	0
86	99 10 07	1.0	10.53	-87.38	3	5	2	30.0	31.66	20	3	6	3	4	0
86	99 10 07	1.0	10.53	-87.38	3	5	2	30.0	31.66	30	2	2	0	0	0
86	99 10 07	1.0	10.53	-87.38	3	5	2	30.0	31.66	500	4	10	0	0	0
86	99 10 07	1.0	10.53	-87.38	3	5	2	30.0	31.66	80	1	1	0	0	0
86	99 10 07	1.0	10.53	-87.38	3	5	2	30.0	31.66	400	2	4	0	0	0
86	99 10 07	1.0	10.53	-87.38	3	5	2	30.0	31.66	200	1	1	0	0	0
87	99 10 08	1.0	11.87	-87.92	3	5	2	26.8	32.33	10	1	1	1	4	0
87	99 10 08	1.0	11.87	-87.92	3	5	2	26.8	32.33	20	1	1	3	3	0
87	99 10 08	1.0	11.87	-87.92	3	5	2	26.8	32.33	30	2	3	0	0	0
87	99 10 08	1.0	11.87	-87.92	3	5	2	26.8	32.33	100	1	0	0	0	0
87	99 10 08	1.0	11.87	-87.92	3	5	2	26.8	32.33	500	1	0	0	0	0
88	99 10 09	1.0	9.18	-89.12	4	5	3	26.4	33.72	10	2	2	2	3	0
88	99 10 09	1.0	9.18	-89.12	4	5	3	26.4	33.72	20	2	1	3	2	0
88	99 10 09	1.0	9.18	-89.12	4	5	3	26.4	33.72	30	1	1	0	0	0
88	99 10 09	1.0	9.18	-89.12	4	5	3	26.4	33.72	100	2	4	0	0	0
88	99 10 09	1.0	9.18	-89.12	4	5	3	26.4	33.72	500	1	2	0	0	0

Table 7. (McArthur dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
88	99 10 09	1.0	9.18	-89.12	4	5	3	26.4	33.72	300	1	0	0	0	0
89	99 10 10	1.0	6.48	-90.35	4	5	2	26.3	33.33	10	4	10	3	1	0
89	99 10 10	1.0	6.48	-90.35	4	5	2	26.3	33.33	20	4	8	1	3	0
89	99 10 10	1.0	6.48	-90.35	4	5	2	26.3	33.33	30	3	2	0	0	0
89	99 10 10	1.0	6.48	-90.35	4	5	2	26.3	33.33	100	3	4	0	0	0
89	99 10 10	1.0	6.48	-90.35	4	5	2	26.3	33.33	300	1	0	0	0	0
90	99 10 11	1.0	6.60	-91.35	4	5	3	26.2	32.95	10	4	14	1	2	0
90	99 10 11	1.0	6.60	-91.35	4	5	3	26.2	32.95	20	2	3	3	2	0
90	99 10 11	1.0	6.60	-91.35	4	5	3	26.2	32.95	30	4	15	0	0	0
90	99 10 11	1.0	6.60	-91.35	4	5	3	26.2	32.95	100	2	1	0	0	0
90	99 10 11	1.0	6.60	-91.35	4	5	3	26.2	32.95	500	1	0	0	0	0
90	99 10 11	1.0	6.60	-91.35	4	5	3	26.2	32.95	200	3	2	0	0	0
90	99 10 11	1.0	6.60	-91.35	4	5	3	26.2	32.95	200	3	2	0	0	0
91	99 10 12	1.0	9.30	-91.98	4	5	3	26.3	32.54	10	4	8	2	2	0
91	99 10 12	1.0	9.30	-91.98	4	5	3	26.3	32.54	20	2	2	3	3	0
91	99 10 12	1.0	9.30	-91.98	4	5	3	26.3	32.54	30	2	4	0	0	0
91	99 10 12	1.0	9.30	-91.98	4	5	3	26.3	32.54	500	5	6	0	0	0
92	99 10 13	1.0	12.22	-92.63	2	1	2	27.7	32.71	10	5	73	1	4	0
92	99 10 13	1.0	12.22	-92.63	2	1	2	27.7	32.71	20	3	16	0	0	0
92	99 10 13	1.0	12.22	-92.63	2	1	2	27.7	32.71	30	3	13	0	0	0
92	99 10 13	1.0	12.22	-92.63	2	1	2	27.7	32.71	500	1	1	0	0	0
93	99 10 14	1.0	15.07	-93.42	1	5	2	28.8	32.20	500	3	11	0	0	0
93	99 10 14	1.0	15.07	-93.42	1	5	2	28.8	32.20	10	1	1	0	0	0
94	99 10 15	1.0	12.02	-94.98	1	1	1	27.7	33.02	10	4	18	1	2	0
94	99 10 15	1.0	12.02	-94.98	1	1	1	27.7	33.02	20	2	1	2	5	0
94	99 10 15	1.0	12.02	-94.98	1	1	1	27.7	33.02	30	1	1	0	0	0
94	99 10 15	1.0	12.02	-94.98	1	1	1	27.7	33.02	100	1	2	0	0	0
94	99 10 15	1.0	12.02	-94.98	1	1	1	27.7	33.02	300	1	0	0	0	0
94	99 10 15	1.0	12.02	-94.98	1	1	1	27.7	33.02	400	2	3	0	0	0
94	99 10 15	1.0	12.02	-94.98	1	1	1	27.7	33.02	200	2	1	0	0	0
94	99 10 15	1.0	12.02	-94.98	1	1	1	27.7	33.02	500	3	4	0	0	0
95	99 10 16	1.0	9.82	-96.03	4	2	2	26.4	32.60	10	1	2	1	2	0
95	99 10 16	1.0	9.82	-96.03	4	2	2	26.4	32.60	30	1	1	3	4	0
95	99 10 16	1.0	9.82	-96.03	4	2	2	26.4	32.60	100	1	1	0	0	0
95	99 10 16	1.0	9.82	-96.03	4	2	2	26.4	32.60	500	1	1	0	0	0
95	99 10 16	1.0	9.82	-96.03	4	2	2	26.4	32.60	200	1	1	0	0	0
96	99 10 17	1.0	6.58	-97.53	3	2	3	26.5	33.40	10	1	1	1	2	0
96	99 10 17	1.0	6.58	-97.53	3	2	3	26.5	33.40	20	1	1	3	3	0
96	99 10 17	1.0	6.58	-97.53	3	2	3	26.5	33.40	30	1	2	0	0	0
96	99 10 17	1.0	6.58	-97.53	3	2	3	26.5	33.40	100	2	5	0	0	0
97	99 10 18	1.0	6.85	-98.32	3	5	3	26.3	33.26	10	1	2	2	3	0
97	99 10 18	1.0	6.85	-98.32	3	5	3	26.3	33.26	20	3	4	3	3	0
97	99 10 18	1.0	6.85	-98.32	3	5	3	26.3	33.26	30	3	3	0	0	0
97	99 10 18	1.0	6.85	-98.32	3	5	3	26.3	33.26	100	4	33	0	0	0
97	99 10 18	1.0	6.85	-98.32	3	5	3	26.3	33.26	200	1	1	0	0	0
97	99 10 18	1.0	6.85	-98.32	3	5	3	26.3	33.26	300	1	0	0	0	0

Table 7. (McArthur dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
98	99 10 19	1.0	10.10	-98.42	1	2	2	27.3	32.44	10	2	4	2	4	0
98	99 10 19	1.0	10.10	-98.42	1	2	2	27.3	32.44	20	2	2	0	0	0
98	99 10 19	1.0	10.10	-98.42	1	2	2	27.3	32.44	30	2	0	0	0	0
98	99 10 19	1.0	10.10	-98.42	1	2	2	27.3	32.44	400	1	1	0	0	0
98	99 10 19	1.0	10.10	-98.42	1	2	2	27.3	32.44	500	1	0	0	0	0
99	99 10 20	1.0	11.05	-98.47	2	3	3	27.4	31.93	10	2	3	2	1	0
99	99 10 20	1.0	11.05	-98.47	2	3	3	27.4	31.93	20	4	9	0	0	0
99	99 10 20	1.0	11.05	-98.47	2	3	3	27.4	31.93	30	3	2	0	0	0
99	99 10 20	1.0	11.05	-98.47	2	3	3	27.4	31.93	500	1	1	0	0	0
100	99 10 21	1.0	13.50	-98.28	2	3	2	28.3	32.67	10	3	4	2	2	0
100	99 10 21	1.0	13.50	-98.28	2	3	2	28.3	32.67	20	3	5	3	1	0
100	99 10 21	1.0	13.50	-98.28	2	3	2	28.3	32.67	30	3	7	0	0	0
100	99 10 21	1.0	13.50	-98.28	2	3	2	28.3	32.67	80	1	1	0	0	0
100	99 10 21	1.0	13.50	-98.28	2	3	2	28.3	32.67	500	1	1	0	0	0
101	99 10 22	1.0	15.93	-98.65	3	4	2	29.3	31.81	30	1	1	3	1	0
101	99 10 22	1.0	15.93	-98.65	3	4	2	29.3	31.81	500	5	25	0	0	0
101	99 10 22	1.0	15.93	-98.65	3	4	2	29.3	31.81	10	1	1	0	0	0
101	99 10 22	1.0	15.93	-98.65	3	4	2	29.3	31.81	400	1	1	0	0	0
101	99 10 22	1.0	15.93	-98.65	3	4	2	29.3	31.81	200	1	3	0	0	0
102	99 10 27	1.0	16.13	-101.22	3	4	2	29.0	33.66	100	2	4	3	2	0
102	99 10 27	1.0	16.13	-101.22	3	4	2	29.0	33.66	10	2	4	2	4	0
102	99 10 27	1.0	16.13	-101.22	3	4	2	29.0	33.66	200	1	2	0	0	0
102	99 10 27	1.0	16.13	-101.22	3	4	2	29.0	33.66	80	1	1	0	0	0
102	99 10 27	1.0	16.13	-101.22	3	4	2	29.0	33.66	300	1	0	0	0	0
103	99 10 28	1.0	13.02	-102.38	3	5	1	28.1	33.37	10	3	8	2	3	0
103	99 10 28	1.0	13.02	-102.38	3	5	1	28.1	33.37	20	3	1	3	2	0
103	99 10 28	1.0	13.02	-102.38	3	5	1	28.1	33.37	100	3	6	0	0	0
103	99 10 28	1.0	13.02	-102.38	3	5	1	28.1	33.37	400	1	1	0	0	0
103	99 10 28	1.0	13.02	-102.38	3	5	1	28.1	33.37	30	1	1	0	0	0
104	99 10 29	1.0	9.73	-103.37	4	3	2	26.8	33.19	30	1	0	2	2	0
104	99 10 29	1.0	9.73	-103.37	4	3	2	26.8	33.19	10	4	14	3	2	0
104	99 10 29	1.0	9.73	-103.37	4	3	2	26.8	33.19	20	2	1	0	0	0
104	99 10 29	1.0	9.73	-103.37	4	3	2	26.8	33.19	100	3	9	0	0	0
104	99 10 29	1.0	9.73	-103.37	4	3	2	26.8	33.19	500	1	0	0	0	0
105	99 10 30	1.0	6.53	-104.32	1	2	3	26.5	32.96	10	2	3	1	4	0
105	99 10 30	1.0	6.53	-104.32	1	2	3	26.5	32.96	20	2	4	3	1	0
105	99 10 30	1.0	6.53	-104.32	1	2	3	26.5	32.96	100	5	37	0	0	0
105	99 10 30	1.0	6.53	-104.32	1	2	3	26.5	32.96	200	6	1	0	0	0
105	99 10 30	1.0	6.53	-104.32	1	2	3	26.5	32.96	300	1	0	0	0	0
105	99 10 30	1.0	6.53	-104.32	1	2	3	26.5	32.96	500	1	0	0	0	0
106	99 10 31	1.0	6.35	-106.03	3	5	3	26.6	32.57	10	1	1	1	2	0
106	99 10 31	1.0	6.35	-106.03	3	5	3	26.6	32.57	30	1	0	2	1	0
106	99 10 31	1.0	6.35	-106.03	3	5	3	26.6	32.57	100	4	12	0	0	0
107	99 11 01	1.0	8.68	-108.23	4	5	2	26.8	33.02	10	3	0	1	1	0
107	99 11 01	1.0	8.68	-108.23	4	5	2	26.8	33.02	20	2	2	2	1	0
107	99 11 01	1.0	8.68	-108.23	4	5	2	26.8	33.02	100	2	5	0	0	0
107	99 11 01	1.0	8.68	-108.23	4	5	2	26.8	33.02	500	1	1	0	0	0

Table 7. (McArthur dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
108	99 11 02	1.0	10.23	-109.20	2	5	2	26.9	-	10	2	7	2	3	0
108	99 11 02	1.0	10.23	-109.20	2	5	2	26.9	-	100	2	4	3	4	0
108	99 11 02	1.0	10.23	-109.20	2	5	2	26.9	-	200	2	2	0	0	0
108	99 11 02	1.0	10.23	-109.20	2	5	2	26.9	-	400	3	6	0	0	0
108	99 11 02	1.0	10.23	-109.20	2	5	2	26.9	-	20	1	0	0	0	0
108	99 11 02	1.0	10.23	-109.20	2	5	2	26.9	-	300	1	0	0	0	0
109	99 11 03	0.8	7.95	-110.80	3	5	2	27.2	33.29	30	1	1	2	2	0
109	99 11 03	0.8	7.95	-110.80	3	5	2	27.2	33.29	100	3	5	3	1	0
109	99 11 03	0.8	7.95	-110.80	3	5	2	27.2	33.29	400	1	3	0	0	0
110	99 11 04	1.0	5.80	-113.13	3	5	2	26.2	33.81	10	1	1	1	1	0
110	99 11 04	1.0	5.80	-113.13	3	5	2	26.2	33.81	20	2	6	2	1	0
110	99 11 04	1.0	5.80	-113.13	3	5	2	26.2	33.81	100	4	21	0	0	0
	99 11 05	0.0	5.35	-113.72	-	-	-	-	-	30	0	2	0	0	0
111	99 11 05	1.0	7.23	-115.00	3	5	2	26.8	33.66	10	2	0	2	1	0
111	99 11 05	1.0	7.23	-115.00	3	5	2	26.8	33.66	20	1	1	3	1	0
111	99 11 05	1.0	7.23	-115.00	3	5	2	26.8	33.66	30	1	0	0	0	0
111	99 11 05	1.0	7.23	-115.00	3	5	2	26.8	33.66	100	2	0	0	0	0
111	99 11 05	1.0	7.23	-115.00	3	5	2	26.8	33.66	300	1	1	0	0	0
112	99 11 06	1.0	9.95	-116.88	3	5	3	26.9	32.92	10	1	2	2	3	0
112	99 11 06	1.0	9.95	-116.88	3	5	3	26.9	32.92	20	1	2	3	2	0
112	99 11 06	1.0	9.95	-116.88	3	5	3	26.9	32.92	30	1	1	0	0	0
112	99 11 06	1.0	9.95	-116.88	3	5	3	26.9	32.92	100	2	6	0	0	0
112	99 11 06	1.0	9.95	-116.88	3	5	3	26.9	32.92	300	1	0	0	0	0
	99 11 07	0.0	10.92	-117.57	-	-	-	-	-	20	0	1	0	0	0
113	99 11 07	1.0	12.73	-118.85	5	5	3	26.9	33.53	10	2	4	2	2	0
113	99 11 07	1.0	12.73	-118.85	5	5	3	26.9	33.53	20	1	0	0	0	0
113	99 11 07	1.0	12.73	-118.85	5	5	3	26.9	33.53	30	2	4	0	0	0
113	99 11 07	1.0	12.73	-118.85	5	5	3	26.9	33.53	100	3	2	0	0	0
113	99 11 07	1.0	12.73	-118.85	5	5	3	26.9	33.53	300	2	0	0	0	0
113	99 11 07	1.0	12.73	-118.85	5	5	3	26.9	33.53	200	4	0	0	0	0
114	99 11 08	1.0	14.37	-116.33	4	5	2	27.3	33.86	10	2	4	2	2	0
114	99 11 08	1.0	14.37	-116.33	4	5	2	27.3	33.86	20	2	2	3	2	0
114	99 11 08	1.0	14.37	-116.33	4	5	2	27.3	33.86	30	2	1	0	0	0
114	99 11 08	1.0	14.37	-116.33	4	5	2	27.3	33.86	100	3	1	0	0	0
115	99 11 09	1.0	12.57	-113.68	4	5	2	27.3	33.41	10	3	18	2	3	0
115	99 11 09	1.0	12.57	-113.68	4	5	2	27.3	33.41	20	3	7	0	0	0
115	99 11 09	1.0	12.57	-113.68	4	5	2	27.3	33.41	100	4	1	0	0	0
115	99 11 09	1.0	12.57	-113.68	4	5	2	27.3	33.41	200	1	1	0	0	0
115	99 11 09	1.0	12.57	-113.68	4	5	2	27.3	33.41	30	2	1	0	0	0
115	99 11 09	1.0	12.57	-113.68	4	5	2	27.3	33.41	300	1	0	0	0	0
116	99 11 10	1.0	15.48	-113.13	3	1	2	27.6	34.24	10	2	2	2	3	0
116	99 11 10	1.0	15.48	-113.13	3	1	2	27.6	34.24	100	3	6	0	0	0
116	99 11 10	1.0	15.48	-113.13	3	1	2	27.6	34.24	300	1	0	0	0	0
117	99 11 11	1.0	15.57	-110.10	3	1	1	27.7	34.26	10	2	5	1	9	0
117	99 11 11	1.0	15.57	-110.10	3	1	1	27.7	34.26	20	4	13	2	9	0
117	99 11 11	1.0	15.57	-110.10	3	1	1	27.7	34.26	30	3	3	0	0	0
117	99 11 11	1.0	15.57	-110.10	3	1	1	27.7	34.26	100	4	5	0	0	0

Table 7. (*McArthur* dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
117	99 11 11	1.0	15.57	-110.10	3	1	1	27.7	34.26	200	1	1	0	0	0
117	99 11 11	1.0	15.57	-110.10	3	1	1	27.7	34.26	200	4	0	0	0	0
117	99 11 11	1.0	15.57	-110.10	3	1	1	27.7	34.26	300	1	0	0	0	0
118	99 11 12	1.0	13.15	-108.03	3	1	2	28.2	33.30	10	3	7	1	1	0
118	99 11 12	1.0	13.15	-108.03	3	1	2	28.2	33.30	20	2	2	2	4	0
118	99 11 12	1.0	13.15	-108.03	3	1	2	28.2	33.30	100	3	5	0	0	0
118	99 11 12	1.0	13.15	-108.03	3	1	2	28.2	33.30	300	1	0	0	0	0
118	99 11 12	1.0	13.15	-108.03	3	1	2	28.2	33.30	200	2	6	0	0	0
118	99 11 12	1.0	13.15	-108.03	3	1	2	28.2	33.30	500	1	1	0	0	0
118	99 11 12	1.0	13.15	-108.03	3	1	2	28.2	33.30	400	1	1	0	0	0
119	99 11 13	1.0	13.13	-109.30	0	1	1	28.3	33.41	10	2	2	2	3	0
119	99 11 13	1.0	13.13	-109.30	0	1	1	28.3	33.41	20	2	3	0	0	0
119	99 11 13	1.0	13.13	-109.30	0	1	1	28.3	33.41	100	2	4	0	0	0
119	99 11 13	1.0	13.13	-109.30	0	1	1	28.3	33.41	300	1	0	0	0	0
119	99 11 13	1.0	13.13	-109.30	0	1	1	28.3	33.41	400	1	2	0	0	0
120	99 11 14	1.0	12.33	-106.85	1	2	2	28.2	33.18	10	3	4	2	4	0
120	99 11 14	1.0	12.33	-106.85	1	2	2	28.2	33.18	20	2	2	0	0	0
120	99 11 14	1.0	12.33	-106.85	1	2	2	28.2	33.18	100	3	4	0	0	0
120	99 11 14	1.0	12.33	-106.85	1	2	2	28.2	33.18	300	1	0	0	0	0
120	99 11 14	1.0	12.33	-106.85	1	2	2	28.2	33.18	500	1	1	0	0	0
121	99 11 15	1.0	14.92	-105.48	2	2	2	29.7	33.72	10	2	4	1	2	0
121	99 11 15	1.0	14.92	-105.48	2	2	2	29.7	33.72	20	2	3	2	4	0
121	99 11 15	1.0	14.92	-105.48	2	2	2	29.7	33.72	30	2	3	3	4	0
121	99 11 15	1.0	14.92	-105.48	2	2	2	29.7	33.72	100	3	2	0	0	0
121	99 11 15	1.0	14.92	-105.48	2	2	2	29.7	33.72	500	1	1	0	0	0
122	99 11 16	1.0	17.88	-103.98	2	2	1	29.4	33.65	10	3	7	3	3	0
122	99 11 16	1.0	17.88	-103.98	2	2	1	29.4	33.65	20	1	1	2	1	0
122	99 11 16	1.0	17.88	-103.98	2	2	1	29.4	33.65	30	3	8	0	0	0
122	99 11 16	1.0	17.88	-103.98	2	2	1	29.4	33.65	100	1	1	0	0	0
122	99 11 16	1.0	17.88	-103.98	2	2	1	29.4	33.65	500	4	7	0	0	0
122	99 11 16	1.0	17.88	-103.98	2	2	1	29.4	33.65	700	1	1	0	0	0
122	99 11 16	1.0	17.88	-103.98	2	2	1	29.4	33.65	400	1	1	0	0	0
123	99 11 21	1.0	18.85	-105.63	4	4	1	28.2	34.62	30	1	1	2	3	0
123	99 11 21	1.0	18.85	-105.63	4	4	1	28.2	34.62	200	4	8	3	2	0
123	99 11 21	1.0	18.85	-105.63	4	4	1	28.2	34.62	500	5	4	0	0	0
124	99 11 22	1.0	17.12	-108.40	3	4	2	27.9	34.12	20	2	1	1	2	0
124	99 11 22	1.0	17.12	-108.40	3	4	2	27.9	34.12	30	2	1	2	4	0
124	99 11 22	1.0	17.12	-108.40	3	4	2	27.9	34.12	90	2	2	0	0	0
124	99 11 22	1.0	17.12	-108.40	3	4	2	27.9	34.12	500	2	0	0	0	0
124	99 11 22	1.0	17.12	-108.40	3	4	2	27.9	34.12	100	2	0	0	0	0
125	99 11 23	1.0	17.60	-111.22	2	4	1	26.9	34.64	10	3	4	1	3	0
125	99 11 23	1.0	17.60	-111.22	2	4	1	26.9	34.64	20	2	2	2	4	0
125	99 11 23	1.0	17.60	-111.22	2	4	1	26.9	34.64	30	2	1	0	0	0
125	99 11 23	1.0	17.60	-111.22	2	4	1	26.9	34.64	100	3	7	0	0	0
	99 11 24	0.0	17.15	-112.23	-	-	-	-	-	20	0	1	0	0	0
126	99 11 24	1.0	16.35	-114.20	5	1	2	27.1	34.21	10	3	9	0	0	0
126	99 11 24	1.0	16.35	-114.20	5	1	2	27.1	34.21	20	2	0	0	0	0

Table 7. (*McArthur* dipnet sampling) continued.

Station ¹ Number	Date Y-M-D	Hours of Effort	Lat.	Lon.	Beaufort	Moon ² Phase	Sky ³	SST ⁴ (C)	SSS ⁵ (psu)	Fish ⁶ Species	Relative ⁷ Abund. (Fish)	Number Collected (Fish)	Squid ⁸ Type	Relative ⁷ Abund. (Squid)	Number Collected (Squid)
126	99 11 24	1.0	16.35	-114.20	5	1	2	27.1	34.21	100	3	2	0	0	0
126	99 11 24	1.0	16.35	-114.20	5	1	2	27.1	34.21	400	1	1	0	0	0
	99 11 25	0.0	15.95	-115.40	-	-	-	-	-	20	0	2	0	0	0
127	99 11 25	1.0	15.58	-117.07	3	5	1	26.0	34.65	10	3	9	1	2	0
127	99 11 25	1.0	15.58	-117.07	3	5	1	26.0	34.65	20	2	1	2	2	0
127	99 11 25	1.0	15.58	-117.07	3	5	1	26.0	34.65	30	2	3	0	0	0
127	99 11 25	1.0	15.58	-117.07	3	5	1	26.0	34.65	100	4	8	0	0	0
127	99 11 25	1.0	15.58	-117.07	3	5	1	26.0	34.65	300	1	0	0	0	0
127	99 11 25	1.0	15.58	-117.07	3	5	1	26.0	34.65	500	1	0	0	0	0
128	99 11 26	1.0	14.42	-119.95	4	5	1	26.1	34.18	10	4	25	2	2	0
128	99 11 26	1.0	14.42	-119.95	4	5	1	26.1	34.18	20	3	7	0	0	0
128	99 11 26	1.0	14.42	-119.95	4	5	1	26.1	34.18	30	3	4	0	0	0
128	99 11 26	1.0	14.42	-119.95	4	5	1	26.1	34.18	100	4	11	0	0	0
128	99 11 26	1.0	14.42	-119.95	4	5	1	26.1	34.18	300	1	0	0	0	0
128	99 11 26	1.0	14.42	-119.95	4	5	1	26.1	34.18	400	1	1	0	0	0
129	99 11 27	1.0	16.87	-117.97	4	5	2	24.6	34.63	10	3	6	1	1	0
129	99 11 27	1.0	16.87	-117.97	4	5	2	24.6	34.63	20	1	1	0	0	0
129	99 11 27	1.0	16.87	-117.97	4	5	2	24.6	34.63	100	2	3	0	0	0
	99 11 28	0.0	17.60	-116.85	-	-	-	-	-	20	0	1	0	0	0
130	99 11 28	1.0	18.98	-115.87	4	5	2	24.8	34.75	100	1	0	1	1	0
131	99 11 29	1.0	19.05	-119.23	4	5	2	23.2	34.56	30	1	0	1	2	0
131	99 11 29	1.0	19.05	-119.23	4	5	2	23.2	34.56	100	2	0	0	0	0
131	99 11 29	1.0	19.05	-119.23	4	5	2	23.2	34.56	500	1	2	0	0	0
132	99 11 30	1.0	21.37	-117.88	4	5	2	22.1	34.31	30	1	1	3	1	0
132	99 11 30	1.0	21.37	-117.88	4	5	2	22.1	34.31	100	2	3	0	0	0
132	99 11 30	1.0	21.37	-117.88	4	5	2	22.1	34.31	500	2	1	0	0	0
133	99 12 01	1.0	22.32	-115.37	4	5	2	22.0	34.17	100	2	5	1	1	0
133	99 12 01	1.0	22.32	-115.37	4	5	2	22.0	34.17	0	0	0	3	1	0
134	99 12 02	1.0	23.32	-117.87	3	5	2	20.2	33.74	100	4	23	0	0	0
134	99 12 02	1.0	23.32	-117.87	3	5	2	20.2	33.74	500	2	2	0	0	0
135	99 12 03	1.0	23.90	-119.85	3	5	3	20.7	33.95	100	3	6	0	0	0
136	99 12 04	1.0	24.92	-117.55	1	5	2	18.9	33.74	100	4	13	1	1	0
136	99 12 04	1.0	24.92	-117.55	1	5	2	18.9	33.74	500	3	5	3	1	0
137	99 12 05	1.0	26.77	-117.65	2	5	2	19.0	33.62	100	4	36	1	3	0
137	99 12 05	1.0	26.77	-117.65	2	5	2	19.0	33.62	500	1	0	3	2	0
138	99 12 06	1.0	29.12	-117.83	4	5	2	18.3	33.56	100	3	4	3	1	0

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

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

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

⁴ SST = Sea Surface Temperature (Celsius)

⁵ SSS = Sea Surface Salinity (practical salinity units)

Table 7. (*McArthur* dipnet sampling) continued.

- 6
- 005 = Unidentified flyingfish
 - 010 = Oxyporhamphus micropterus
 - 015 = Fodiator spp.
 - 020 = Exocetus spp.
 - 030 = Unidentified 4-wing flyingfish
 - 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

- 7
- 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"

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

Table 8. Sea striders (*Halobates* spp.) collected from the *Jordan* and the *McArthur*, 28 July – 9 December 1999.

Species	No. of Stations with Samples	No. of Individuals Collected
<i>H. sobrinus</i>	72	3380
<i>H. micans</i>	125	2427
<i>H. sericeus</i>	15	278
<i>H. splendens</i>	17	97

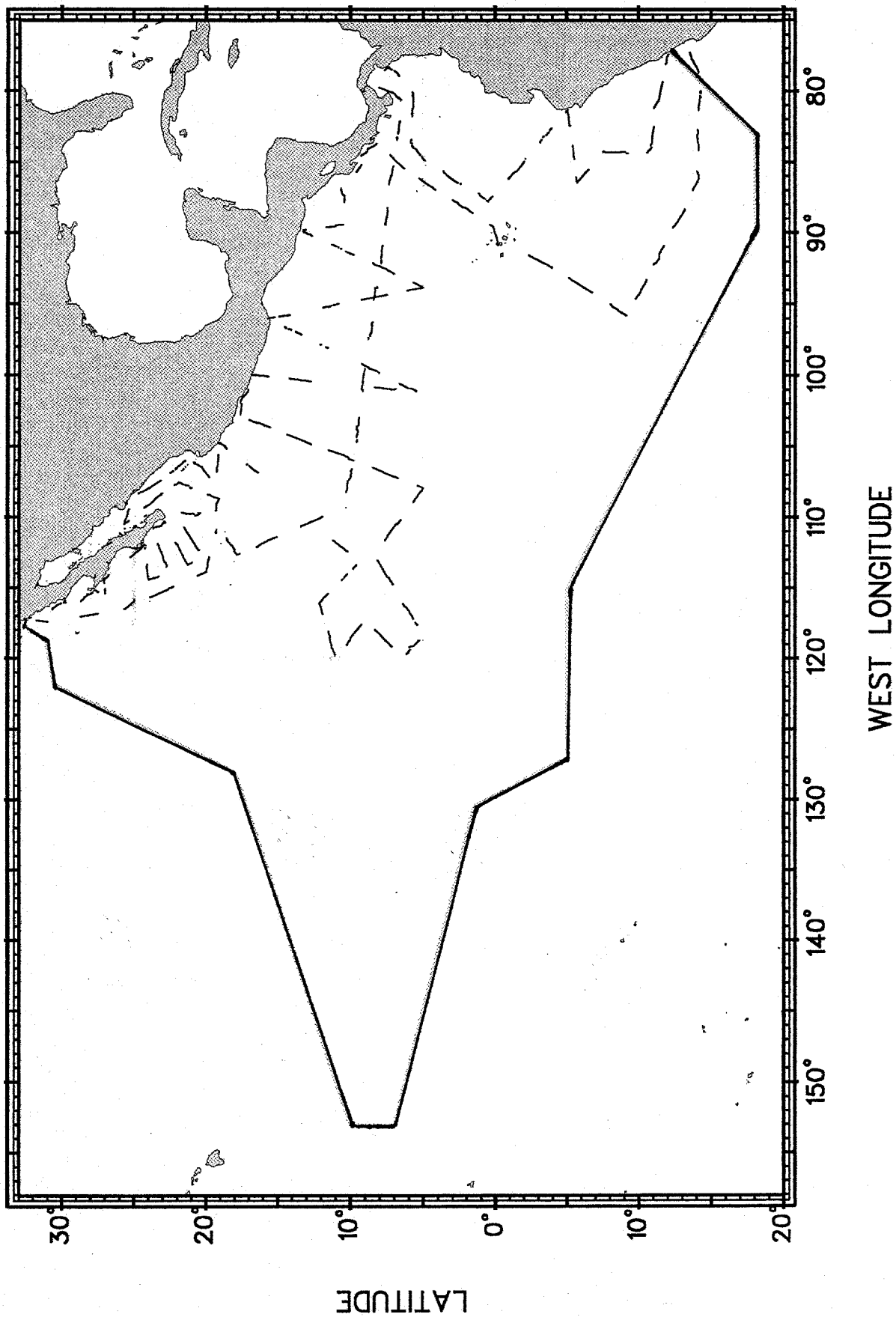
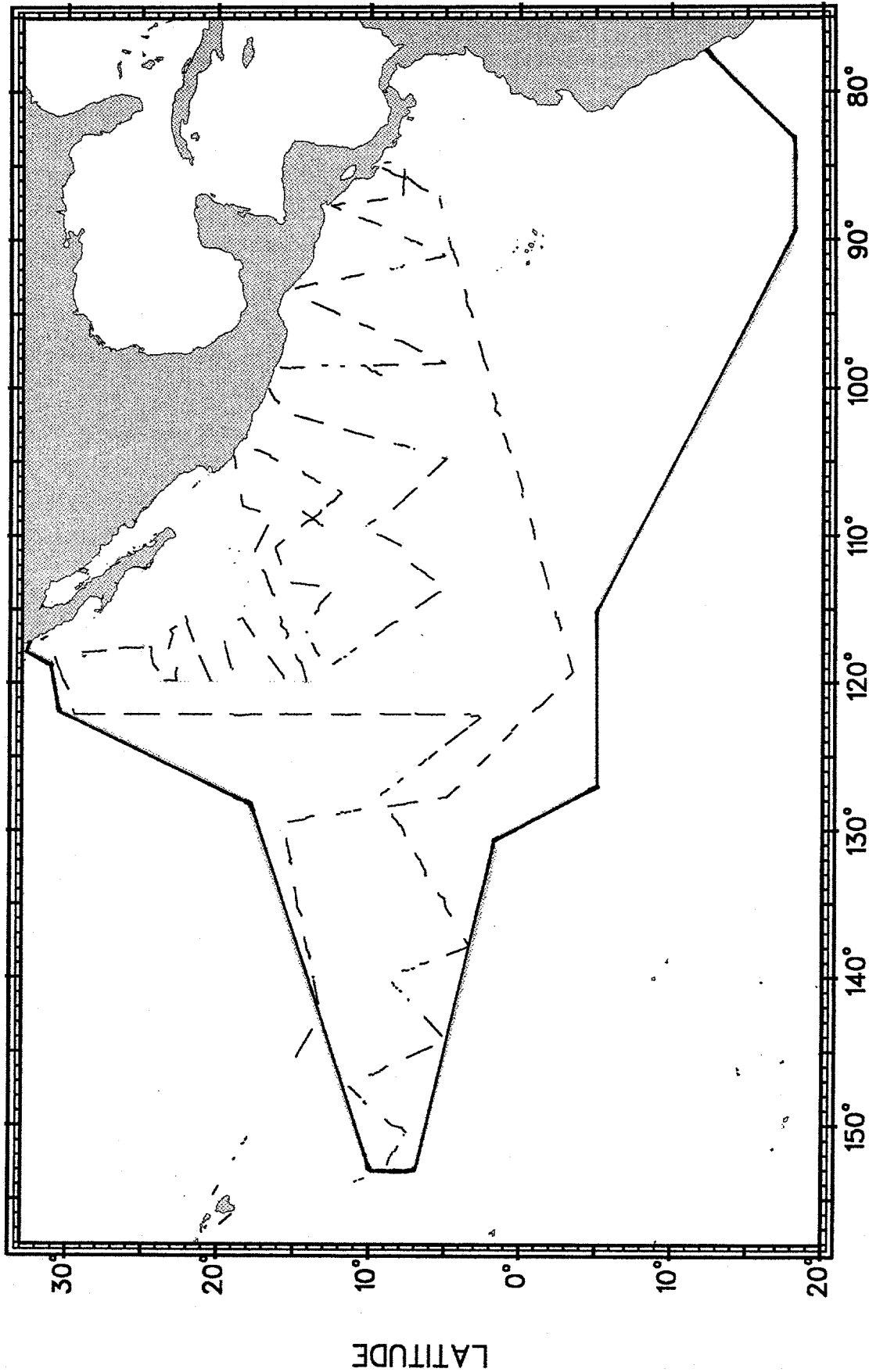


Figure 1. Tracklines, *Jordan*, 28 July – 9 December 1999. The tracklines are indicated by the dashed lines; the study area boundary is indicated by the solid line.



WEST LONGITUDE

Figure 2. Tracklines, *McArthur*, 28 July – 9 December 1999. The tracklines are indicated by the dashed lines; the study area boundary is indicated by the solid line.

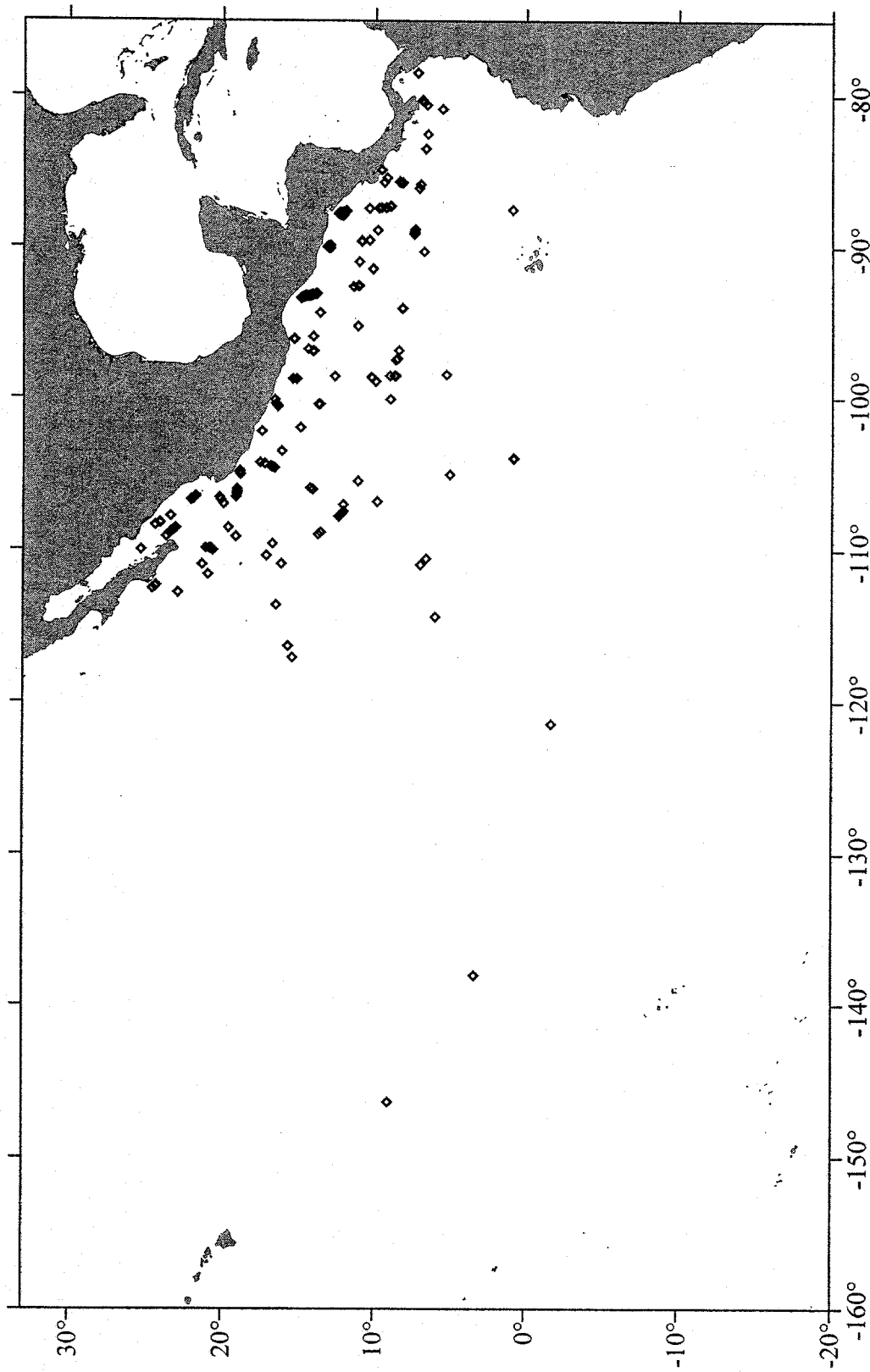


Figure 3. Locations of olive ridley turtle (*Lepidochelys olivacea*) sightings recorded from the *Jordan* and the *McArthur*, 28 July – 9 December 1999.

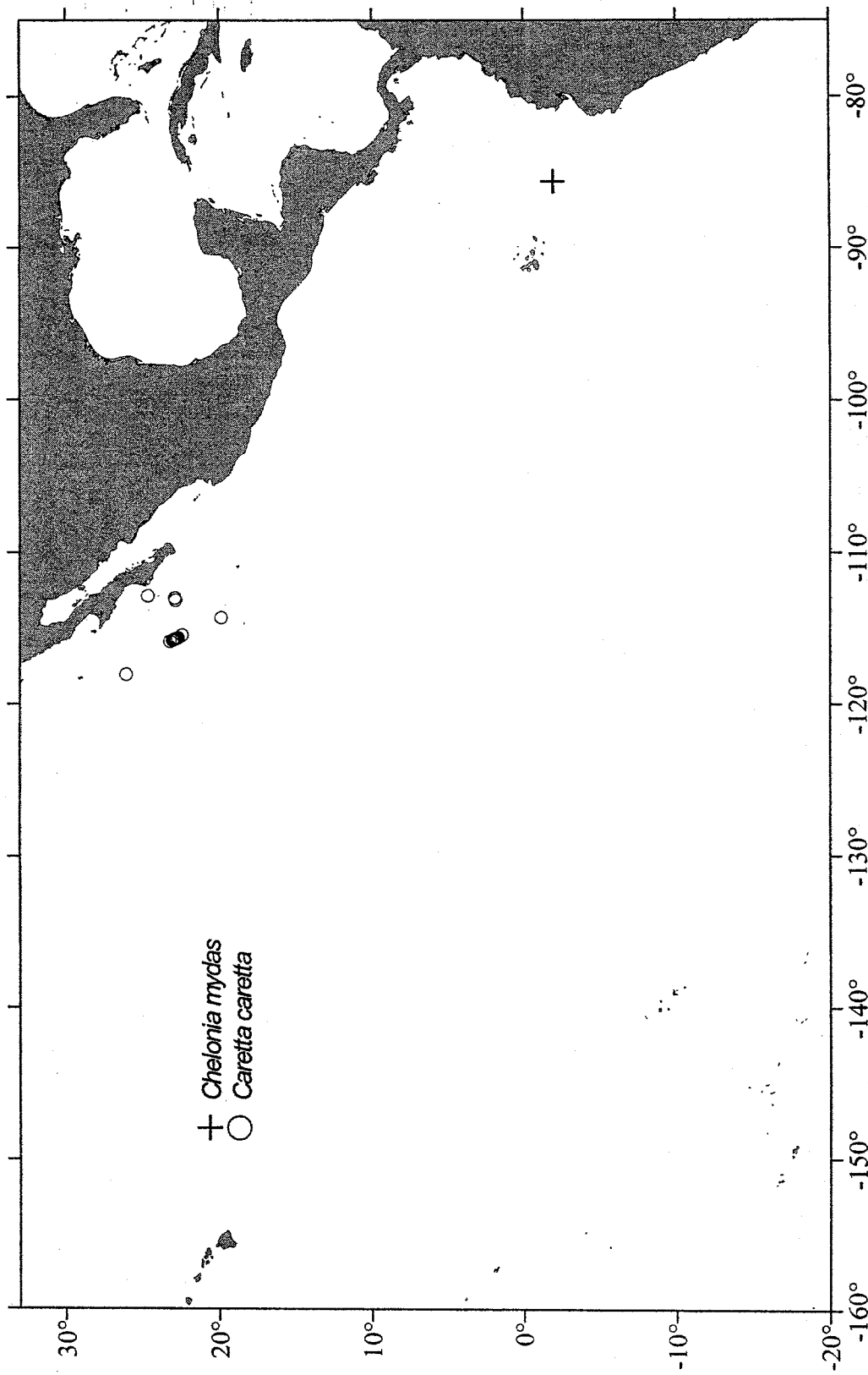


Figure 4. Locations of green turtle (*Chelonia mydas*) and loggerhead turtle (*Caretta caretta*) sightings recorded from the *Jordan* and the *McArthur*, 28 July – 9 December 1999.

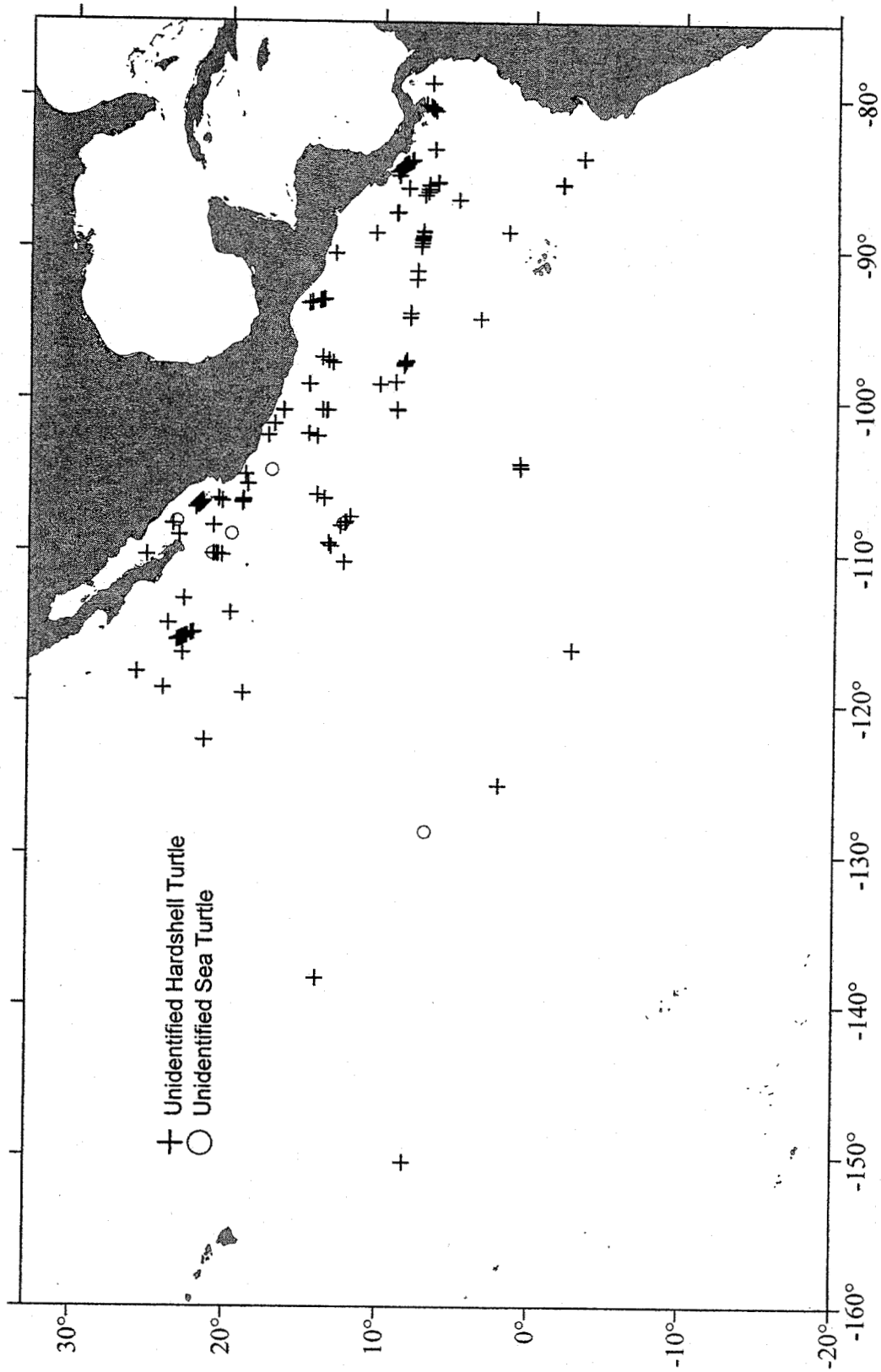


Figure 5. Locations of unidentified hardshell turtles (Cheloniidae) and unidentified sea turtles recorded from the *Jordan* and the *McArthur*, 28 July – 9 December 1999.

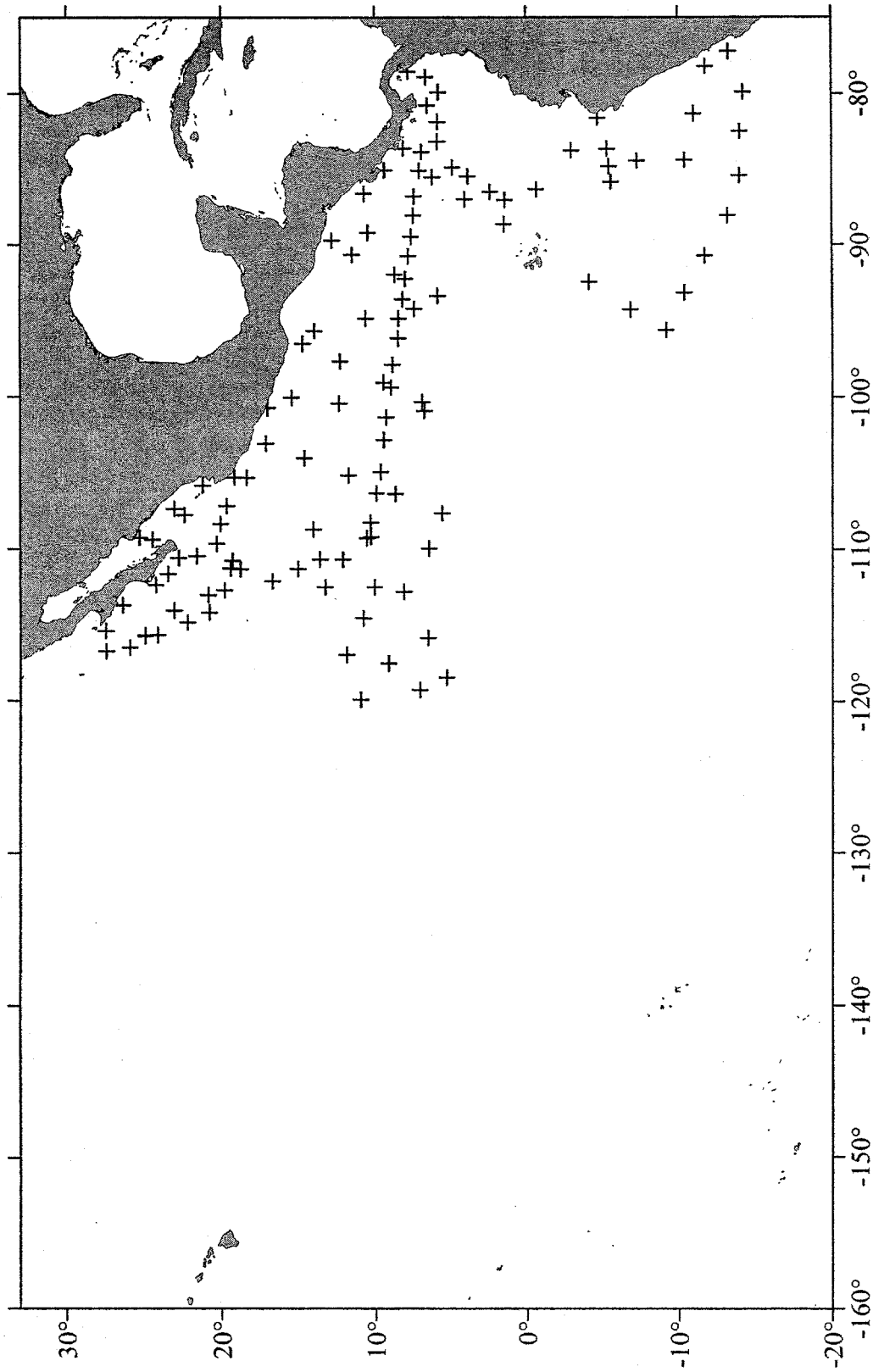


Figure 6. Locations of dipnet stations, *Jordan*, 28 July – 9 December 1999.

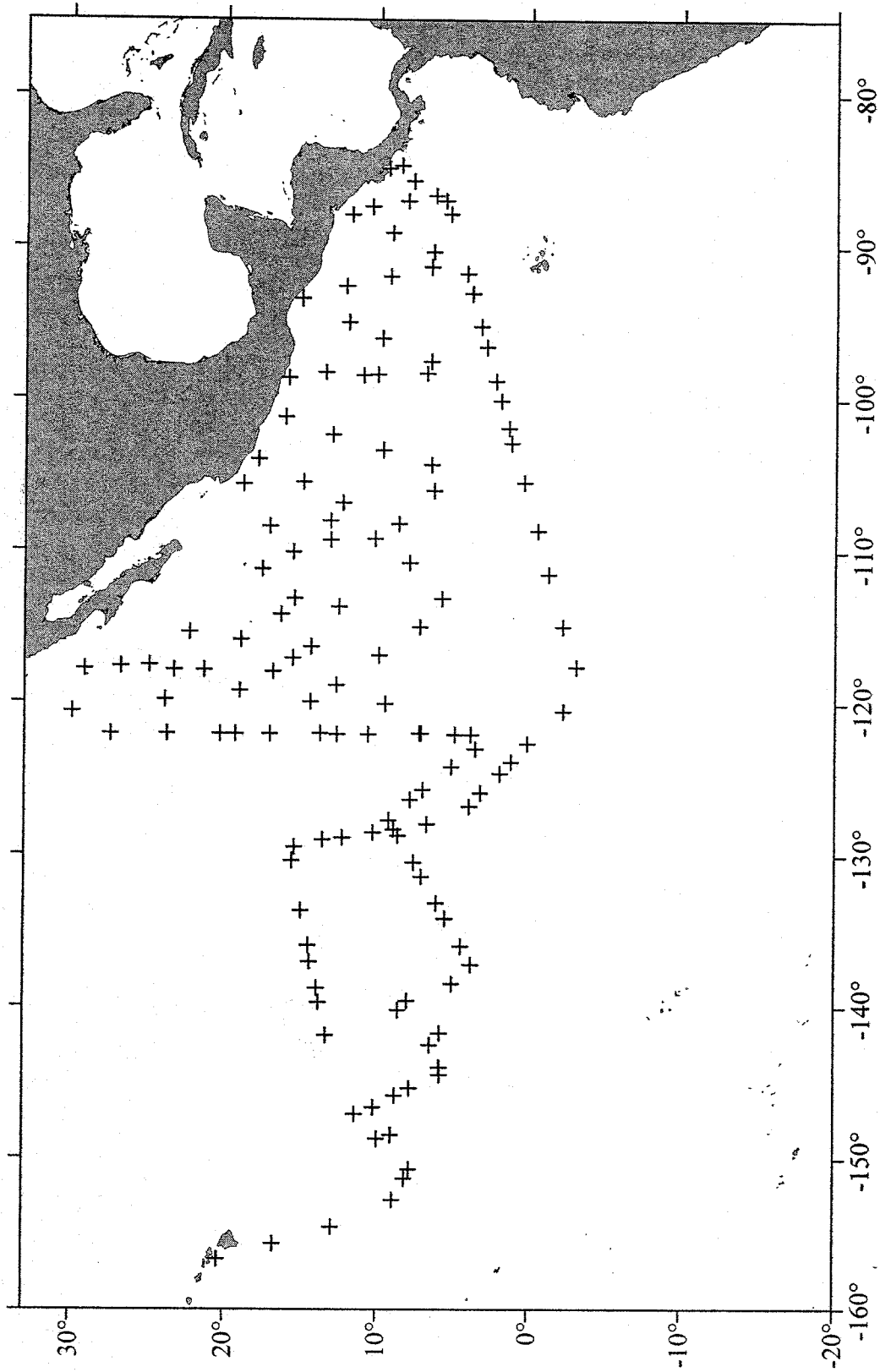


Figure 7. Locations of dipnet stations, *McArthur*, 28 July – 9 December 1999.

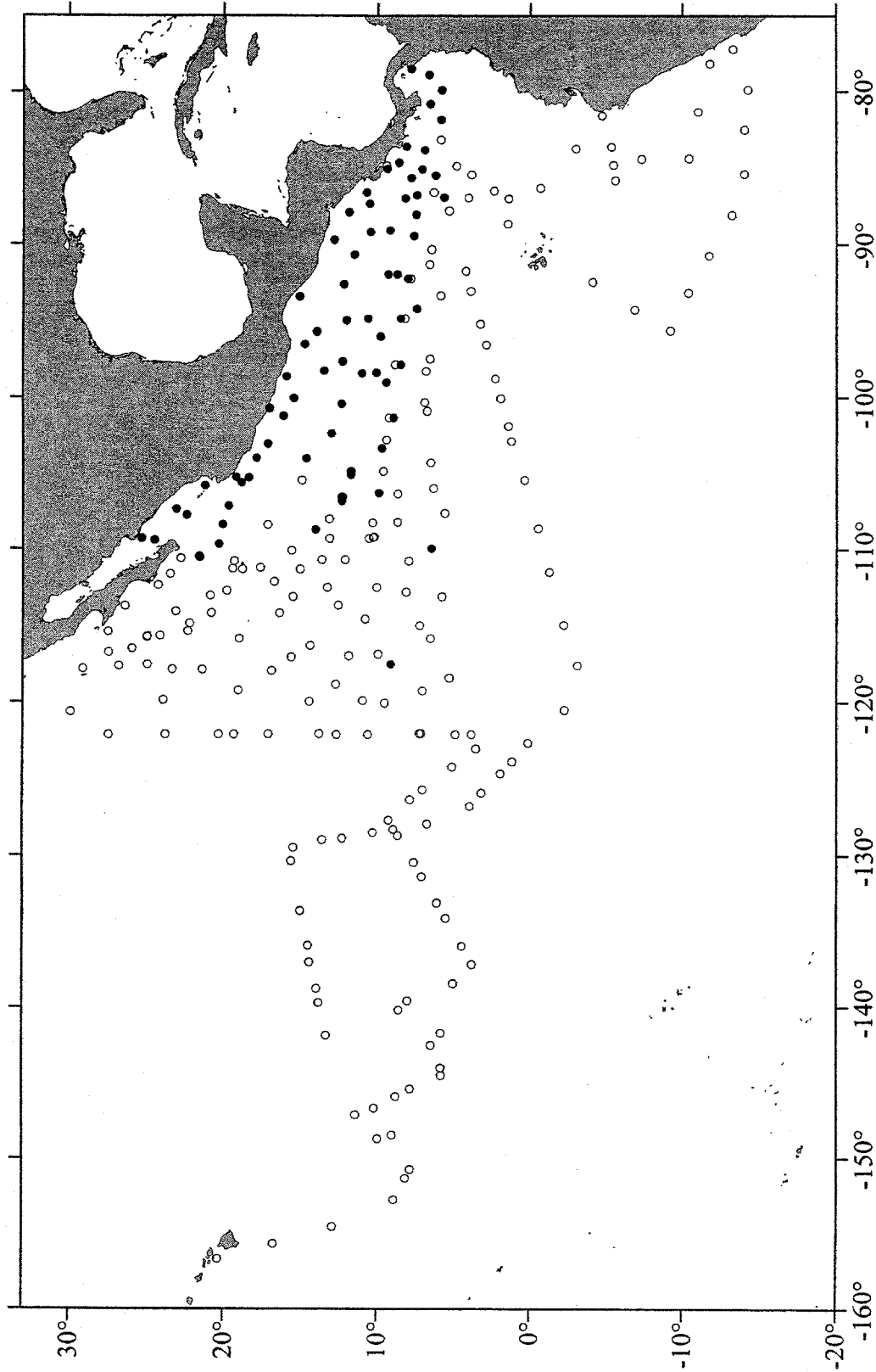


Figure 8. Locations of *Halobates sobrinus* (●) collected from the *Jordan* and the *McArthur*, 28 July – 9 December 1999. Open circles (○) indicate locations of dipnet stations where *H. sobrinus* were not collected.

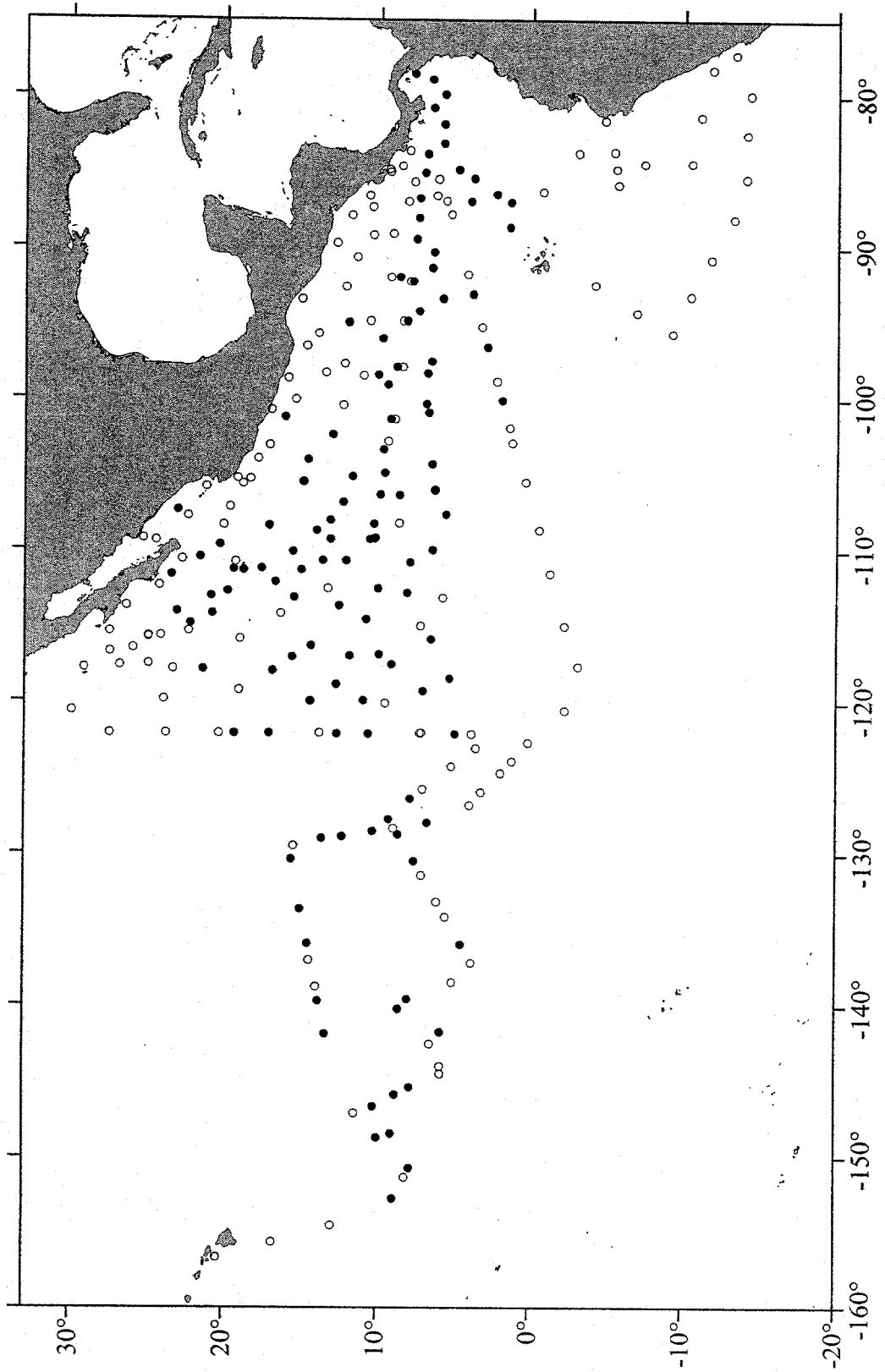


Figure 9. Locations of *Halobates micans* (●) collected from the *Jordan* and the *McArthur*, 28 July – 9 December 1999. Open circles (○) indicate locations of dipnet stations where *H. micans* were not collected.

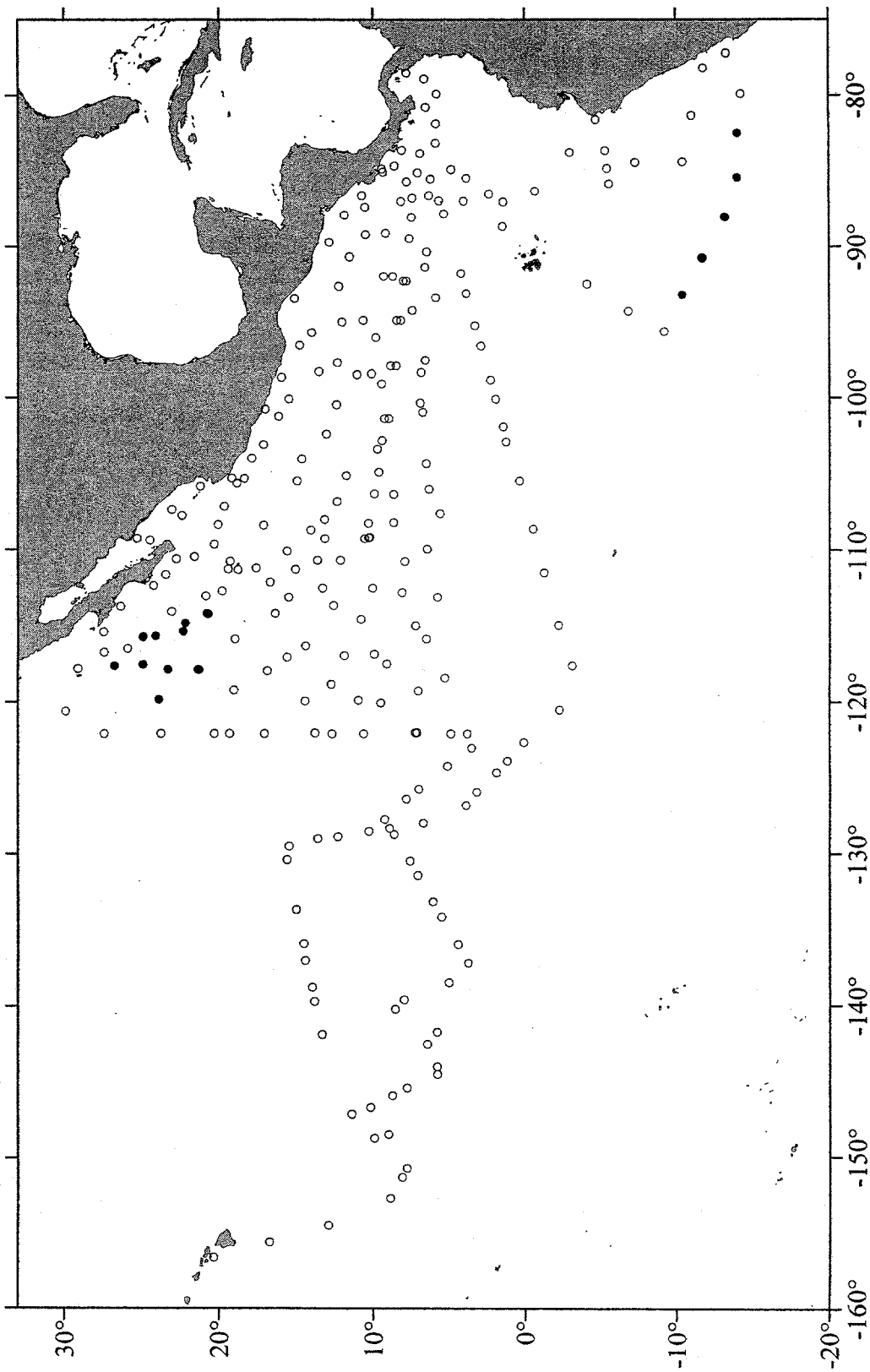


Figure 10. Locations of *Halobates sericeus* (•) collected from the *Jordan* and the *McArthur*, 28 July – 9 December 1999. Open circles (o) indicate locations of dipnet stations where *H. sericeus* were not collected.

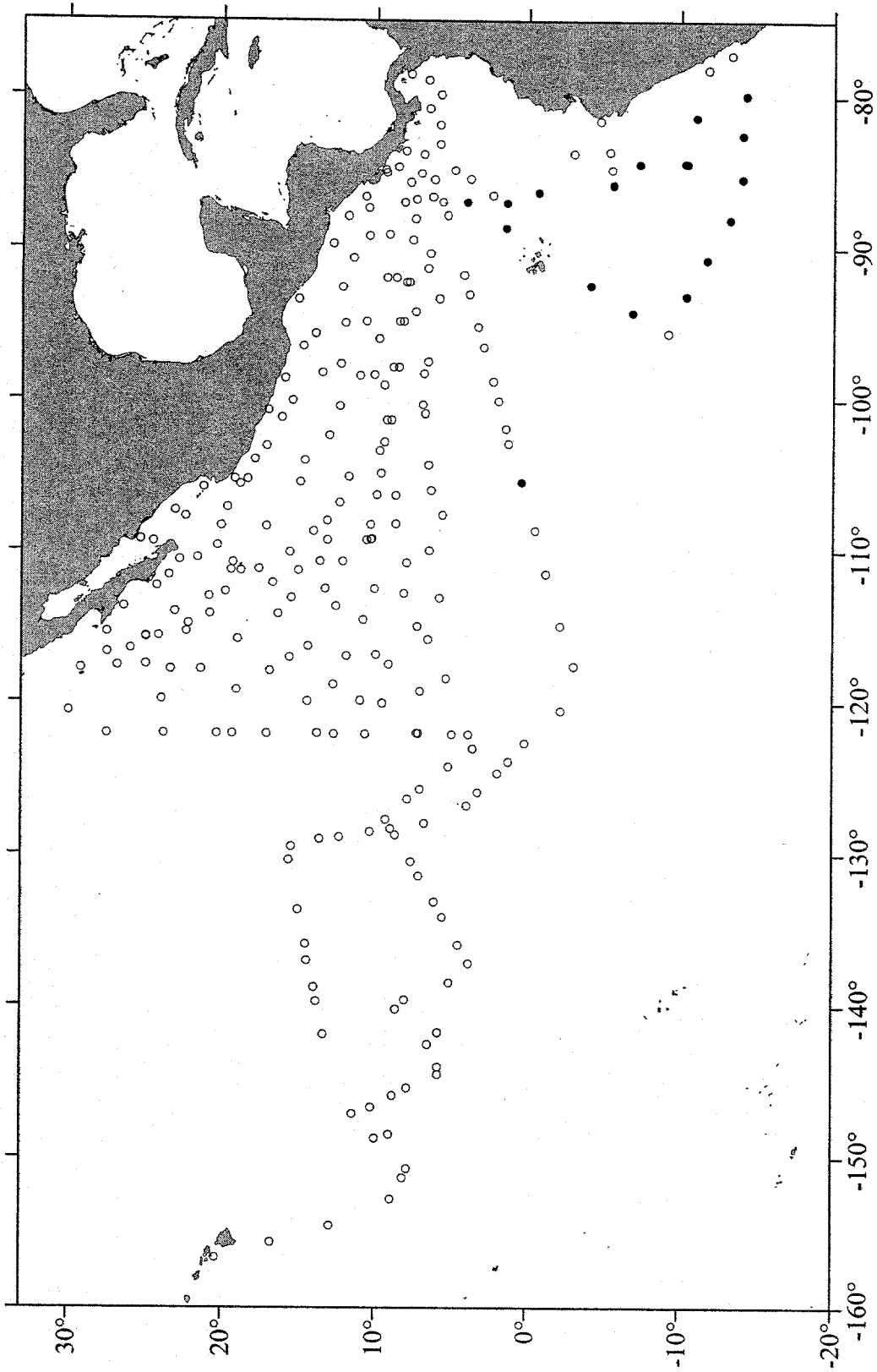


Figure 11. Locations of *Halobates splendens* (•) collected from the *Jordan* and the *McArthur*, 28 July – 9 December 1999. Open circles (°) indicate locations of dipnet stations where *H. splendens* were not collected.

Appendix 1 continued.

Name	Position	Affiliation ¹	D. S. Jordan Leg #						McArthur Leg #									
			1	2	3	4	5	6	1	2	3	4	5					
Dave Gardner	Helicopter Pilot	AOC	x															
LT Julie Helmers	Helicopter Pilot	AOC				x												
Kerri Danil	Oceanographer	SWFSC			x													
Kerry Kopitsky	Oceanographer	SWFSC	x		x													
Kathy Noyes	Oceanographer	SWFSC		x														
Valerie Philbrick	Oceanographer	SWFSC	x	x	x													
John Brandon	Photogrammetrist	SWFSC		x														
Katie Cramer	Photogrammetrist	SWFSC	x		x													
Jim Gilpatrick	Photogrammetrist	SWFSC																
Morgan Lynn	Photogrammetrist	SWFSC	x		x													
Charles Stinchcomb	Photogrammetrist	SWFSC		x														
Paola Amador	Visiting Scientist	Ecuador																
Gill Braulik	Visiting Scientist	Great Britain																
Pedro Castaneda	Visiting Scientist	Armada de Ecuador																
Lanna Cheng	Visiting Scientist	SIO																
Areli Cortés	Visiting Scientist	INP, Mexico																
Peter Dutton	Visiting Scientist	SWFSC																
Jaume Forcada	Visiting Scientist	SWFSC																
Erica Goetze	Visiting Scientist	UCSD																
Jan Hodder	Visiting Scientist	University of Oregon																
Kathy Hough	Visiting Scientist	SWFSC																
Julie Oswald	Visiting Scientist	SDSU																
Carl Safina	Visiting Scientist	Nat'l Audubon Society																
Milena Schreiber	Visiting Scientist	IMARPE, Peru																
Luis Vilchis	Visiting Scientist	UCSD																
Edith Zárate	Visiting Scientist	INP, Mexico																
Raul Zamora	Visiting Scientist	Armada de Guatemala																

¹ SWFSC- Southwest Fisheries Science Center; AOC- Aircraft Operations Center, National Oceanic and Atmospheric Administration; INP- Instituto Nacional de la Pesca; IMARPE- Instituto del Mar del Peru; SDSU - San Diego State University; SIO - Scripps Institution of Oceanography; UCSD - University of California, San Diego.

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