NOAA Technical Memorandum NMFS


MARCH 2001

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

Paula A. Olson
Robert L. Pitman
Lisa T. Ballance
Kathryn R. Hough
Peter Dutton
Stephen B. Reilly

NOAA-TM-NMFS-SWFSC-301

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

The National Oceanic and Atmospheric Administration (NOAA), organized in 1970, has evolved into an agency which establishes national policies and manages and conserves our oceanic, coastal, and atmospheric resources. An organizational element within NOAA, the Office of Fisheries is responsible for fisheries policy and the direction of the National Marine Fisheries Service (NMFS).

In addition to its formal publications, the NMFS uses the NOAA Technical Memorandum series to issue informal scientific and technical publications when complete formal review and editorial processing are not appropriate or feasible. Documents within this series, however, reflect sound professional work and may be referenced in the formal scientific and technical literature.

**NOAA Technical Memorandum NMFS**
This TM series is used for documentation and timely communication of preliminary results, interim reports, or special purpose information. The TMs have not received complete formal review, editorial control, or detailed editing.

**MARCH 2001**

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

Paula A. Olson, Robert L. Pitman, Lisa T. Ballance,
Kathryn R. Hough, Peter Dutton, and Stephen B. Reilly

National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southwest Fisheries Science Center
8604 La Jolla Shores Drive
La Jolla, California, USA 92037

NOAA-TM-NMFS-SWFSC-301

**U.S. DEPARTMENT OF COMMERCE**
Donald L. Evans, Secretary
**National Oceanic and Atmospheric Administration**
Scott B. Gudes, Acting Under Secretary for Oceans and Atmosphere
**National Marine Fisheries Service**
William T. Hogarth, Acting Assistant Administrator for Fisheries

CONTENTS

LIST OF TABLES

LIST OF FIGURES

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

Paula A. Olson, Robert L. Pitman, Lisa T. Ballance,
Kathryn R. Hough, Peter Dutton, and Stephen B. Reilly

## 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 (26-30ºC); Laboratory (20-25ºC); Cold-room (10-15ºC); and Refrigerator (4-5ºC). 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.

## ACKNOWLEDGMENTS

We are grateful to the many people who contributed to the success of this survey. We especially thank the following persons, whose efforts made this project possible: the officers and crew of the NOAA Ships *David Starr Jordan* and *McArthur*; the staff at the Southwest Fisheries Science Center including LT Anne Nimershiem, the project's on-shore survey coordinator; the staff of the Pacific Marine Center; and the bird observers, marine mammal observers, oceanographers, and other cruise participants who collected data. Olive ridley turtles were sampled in collaboration with Dr. Pam Plotkin, University of Delaware. Dr. Lanna Cheng of Scripps Institution of Oceanography identified all of the *Halobates* specimens. John Brandon assisted with programming and data extraction for this report. Robert Holland prepared the sea turtle plots. We thank Dr. Tim Gerrodette, Dr. Paul Fiedler, and Valerie Philbrick for reviewing this manuscript.

## LITERATURE CITED


Au, D.W.K., and W.L. Perryman. 1985. Dolphin habitats in the eastern tropical Pacific. Fishery Bulletin, U.S. 83: 623-643.

Au, D.W.K., and R.L. Pitman. 1986. Seabird interactions with dolphins and tuna in the eastern tropical Pacific. Condor 88: 304-317.

Ballance, L.T., R.L. Pitman, and S.B. Reilly. 1997. Seabird community structure along a productivity gradient: importance of competition and energetic constraint. Ecology 78: 1502-1518.

Beavers, S.C. and F. L. Ramsey. 1998. Detectability analysis in transect surveys. Journal of Wildlife Management 62(3): 948-957.

Kinzey, D., T. Gerrodette, J. Barlow, A. Dizon, W. Perryman, and P. Olson. 2000. Marine mammal data collected during a survey in the eastern tropical Pacific Ocean aboard the NOAA ships *McArthur* and *David Starr Jordan*. July 28 – December 9, 1999. Southwest Fisheries Science Center NOAA Tech. Memo. 283.

Kopitsky, K., R.L. Pitman, and P. H. Dutton. In press. Reproductive ecology of olive ridleys on the open ocean in the eastern tropical Pacific. Proceedings of the 20th Annual Symposium on Sea Turtle Biology and Conservation. NOAA Tech. Memo.

Olson, P.A., R.L. Pitman, L.T. Ballance, and S.B. Reilly. 2000. Summary of seabird, marine turtle, and surface fauna data collected during a survey in the eastern tropical Pacific Ocean July 30 – December 9, 1998. Southwest Fisheries Science Center NOAA Tech. Memo. 298.

Philbrick, V., P. Fiedler, and S. Reilly. In prep. Report of oceanographic studies conducted during the 1999 eastern tropical Pacific survey on the research vessels *McArthur* and *David Starr Jordan*. Southwest Fisheries Science Center, NOAA Tech. Memo.

Pitman, R.L. 1993. Seabird associations with marine turtles in the eastern Pacific. Colonial Waterbirds 16(2): 194-201.

Pitman, R.L., and L.T. Ballance. 1990. Daytime feeding Leach's Storm-Petrel on a midwater fish, *Vinciguerria lucetia*, in the eastern tropical Pacific. Condor 92: 524-527.

Pitman, R.L., and L.T. Ballance. 1992. Parkinson's Petrel distribution and foraging ecology in the eastern tropical Pacific: aspects of an exclusive feeding relationship with dolphins. Condor 94: 824-834.

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 | *Pterodroma externa* | 0 | 4349 | 914 | 2 | 1 | 0 | 5266 |
| Sooty Tern | *Sterna fuscata* | 17 | 2397 | 8 | 0 | 666 | 443 | 3531 |
| Black Storm-petrel | *Oceanodroma melania* | 2633 | 3 | 21 | 141 | 24 | 6 | 2828 |
| Sooty Shearwater | *Puffinus griseus* | 2319 | 0 | 0 | 6 | 26 | 69 | 2420 |
| Wedge-tailed Shearwater (light morph) | *Puffinus pacificus* | 4 | 272 | 217 | 8 | 268 | 1575 | 2344 |
| Brown Booby | *Sula leucogaster* | 1129 | 687 | 83 | 97 | 56 | 219 | 2271 |
| Wedge-tailed Shearwater (dark morph) | *Puffinus pacificus* | 1 | 2067 | 45 | 0 | 17 | 53 | 2183 |
| Wedge-rumped (Galápagos) Storm-petrel | *Oceanodroma tethys* | 658 | 92 | 303 | 186 | 297 | 60 | 1596 |
| Black Tern | *Chlidonias niger* | 412 | 52 | 34 | 143 | 685 | 205 | 1531 |
| Audubon's Shearwater | *Puffinus lherminieri* | 173 | 0 | 534 | 37 | 540 | 11 | 1295 |
| Cook's Petrel | *Pterodroma cookii* | 1128 | 7 | 0 | 5 | 0 | 1 | 1141 |
| Pink-footed Shearwater | *Puffinus creatopus* | 996 | 12 | 32 | 5 | 27 | 54 | 1126 |
| Red-footed Booby | *Sula sula* | 48 | 22 | 148 | 140 | 366 | 374 | 1098 |
| Leach's Storm-petrel (white-rumped) | *Oceanodroma leucorhoa* | 218 | 87 | 27 | 284 | 80 | 380 | 1076 |
| Red-necked (Northern) Phalarope | *Phalaropus lobatus* | 368 | 1 | 326 | 0 | 4 | 0 | 699 |
| Wedge-tailed Shearwater (unidentified morph) | *Puffinus pacificus* | 4 | 111 | 5 | 0 | 0 | 356 | 476 |
| Masked Booby | *Sula dactylatra* | 20 | 193 | 9 | 58 | 25 | 167 | 472 |
| Red Phalarope | *Phalaropus fulicarius* | 68 | 8 | 16 | 82 | 243 | 29 | 446 |
| Brown Pelican | *Pelecanus occidentalis* | 431 | 0 | 0 | 1 | 1 | 0 | 433 |
| Magnificent Frigatebird | *Fregata magnificens* | 287 | 1 | 10 | 10 | 11 | 6 | 325 |
| Elegant Tern | *Sterna elegans* | 297 | 0 | 0 | 0 | 13 | 7 | 317 |
| Leach's Storm-petrel (dark-rumped) | *Oceanodroma leucorhoa* | 268 | 2 | 11 | 0 | 0 | 3 | 284 |
| Markham's Storm-petrel | *Oceanodroma markhami* | 0 | 0 | 4 | 124 | 141 | 0 | 269 |
| Franklin's Gull | *Larus pipixcan* | 0 | 0 | 0 | 3 | 257 | 0 | 260 |
| Townsend's Shearwater | *Puffinus auricularis* | 44 | 8 | 1 | 0 | 0 | 204 | 257 |
| Hornby's Storm-petrel | *Oceanodroma hornbyi* | 0 | 0 | 0 | 205 | 48 | 0 | 253 |
| Black-vented Shearwater | *Puffinus opisthomelas* | 224 | 0 | 0 | 0 | 0 | 0 | 224 |
| Masked/Nazca Booby | *Sula dactylatra/granti* | 3 | 102 | 13 | 3 | 71 | 20 | 212 |
| Least Storm-petrel | *Oceanodroma microsoma* | 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 | *Sula granti* | 6 | 4 | 46 | 25 | 68 | 9 | 158 |
| Western Gull | *Larus occidentalis* | 150 | 0 | 0 | 0 | 0 | 3 | 153 |
| Defilippe's Petrel | *Pterodroma defilippiana* | 0 | 0 | 0 | 141 | 0 | 0 | 141 |
| Arctic Tern | *Sterna paradisaea* | 0 | 1 | 53 | 74 | 1 | 0 | 129 |
| Brown Noddy | *Anous stolidus* | 42 | 26 | 9 | 4 | 39 | 4 | 124 |
| White Tern | *Gygis alba* | 0 | 7 | 4 | 66 | 42 | 0 | 119 |
| Blue-footed Booby | *Sula nebouxii* | 8 | 0 | 0 | 1 | 104 | 0 | 113 |
| Tahiti Petrel | *Pseudobulweria rostrata* | 0 | 25 | 77 | 1 | 0 | 7 | 110 |
| Pomarine Jaeger | *Stercorarius pomarinus* | 0 | 0 | 3 | 2 | 46 | 50 | 101 |
| Sabine's Gull | *Larus sabini* | 10 | 2 | 15 | 2 | 64 | 2 | 95 |
| Unidentified Frigatebird | *Fregata* spp. | 0 | 15 | 20 | 21 | 16 | 20 | 92 |
| Passerines | | 9 | 0 | 19 | 5 | 4 | 53 | 90 |
| Red-billed Tropicbird | *Phaethon aethereus* | 11 | 10 | 5 | 15 | 12 | 22 | 75 |
| White-bellied Storm-petrel | *Fregetta grallaria* | 0 | 0 | 0 | 74 | 0 | 0 | 74 |
| Hawaiian/Dark-rumped Petrel | *Pterodroma sandwichensis/phaeopygia* | 0 | 5 | 0 | 58 | 3 | 1 | 67 |
| Harcourt's (Band-rumped) Storm-petrel | *Oceanodroma castro* | 1 | 0 | 0 | 45 | 17 | 1 | 64 |
| Leach's Storm-petrel (unidentified morph) | *Oceanodroma leucorhoa* | 62 | 0 | 2 | 0 | 0 | 0 | 64 |
| Laughing Gull | *Larus atricilla* | 0 | 0 | 0 | 0 | 8 | 49 | 57 |
| Buller's Albatross | *Diomedea bulleri* | 0 | 0 | 0 | 46 | 2 | 0 | 48 |
| Least Tern | *Sterna antillarum* | 29 | 0 | 0 | 1 | 6 | 11 | 47 |
| Parasitic Jaeger | *Stercorarius parasiticus* | 1 | 2 | 7 | 17 | 15 | 1 | 43 |
| Heermann's Gull | *Larus heermanni* | 42 | 0 | 0 | 0 | 0 | 0 | 42 |
| Arctic/Common Tern | *Sterna paradisaea/hirundo* | 5 | 9 | 21 | 0 | 0 | 4 | 39 |
| Great Frigatebird | *Fregata minor* | 0 | 14 | 1 | 11 | 9 | 3 | 38 |
| Swallow-tailed Gull | *Larus furcatus* | 0 | 0 | 0 | 18 | 18 | 0 | 36 |
| White-chinned Petrel | *Procellaria aequinoctialis* | 0 | 0 | 0 | 0 | 36 | 0 | 36 |
| Xantus'/Craveri's Murrelet | *Synthliboramphus hypoleuca/craveri* | 31 | 0 | 0 | 0 | 0 | 0 | 31 |
| Christmas Island Shearwater | *Puffinus nativitatus* | 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 | *Pterodroma neglecta* | 0 | 14 | 6 | 3 | 0 | 0 | 23 |
| Long-tailed Jaeger | *Stercorarius longicaudus* | 1 | 10 | 7 | 1 | 2 | 1 | 22 |
| Waved Albatross | *Diomedea irrorata* | 0 | 0 | 0 | 3 | 17 | 0 | 20 |
| Peruvian Booby | *Sula variegata* | 0 | 0 | 0 | 0 | 19 | 0 | 19 |
| Black-footed Albatross | *Diomedea nigripes* | 9 | 0 | 0 | 0 | 0 | 8 | 17 |
| White-winged Petrel | *Pterodroma leucoptera* | 0 | 16 | 1 | 0 | 0 | 0 | 17 |
| Band-tailed Gull | *Larus belcheri* | 0 | 0 | 0 | 0 | 16 | 0 | 16 |
| Kermadec Petrel (dark morph) | *Pterodroma neglecta* | 0 | 0 | 0 | 12 | 3 | 0 | 15 |
| Parkinson's Petrel | *Procellaria parkinsoni* | 0 | 0 | 2 | 5 | 5 | 0 | 12 |
| Bridled Tern | *Sterna anaethetus* | 3 | 0 | 5 | 1 | 0 | 2 | 11 |
| Bulwer's Petrel | *Bulweria bulwerii* | 0 | 9 | 0 | 0 | 0 | 0 | 9 |
| Peruvian Tern | *Sterna lorata* | 0 | 0 | 0 | 0 | 9 | 0 | 9 |
| Sandwich Tern | *Sterna sandvicensis* | 0 | 0 | 0 | 0 | 6 | 3 | 9 |
| Chilean Pelican | *Pelecanus thagus* | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| Cape Petrel | *Daption capense* | 0 | 0 | 0 | 4 | 3 | 0 | 7 |
| Chilean Skua | *Stercorarius chilensis* | 0 | 0 | 0 | 2 | 5 | 0 | 7 |
| Royal Tern | *Sterna maxima* | 4 | 0 | 3 | 0 | 0 | 0 | 7 |
| Craveri's Murrelet | *Synthliboramphus craveri* | 6 | 0 | 0 | 0 | 0 | 0 | 6 |
| Black-winged Petrel | *Pterodroma nigripennis* | 0 | 6 | 0 | 0 | 0 | 0 | 6 |
| Guanay Cormorant | *Phalacrocorax bougainvillii* | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| Kelp Gull | *Larus dominicanus* | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| Red-tailed Tropicbird | *Phaethon rubricauda* | 1 | 2 | 0 | 1 | 0 | 1 | 5 |
| Gray Gull | *Larus modestus* | 0 | 0 | 0 | 0 | 4 | 0 | 4 |
| South Polar Skua | *Stercorarius maccormicki* | 1 | 0 | 0 | 2 | 1 | 0 | 4 |
| Leach's Storm-petrel (intermediate-rumped) | *Oceanodroma leucorhoa* | 1 | 0 | 2 | 0 | 0 | 1 | 4 |
| Inca Tern | *Larosterna inca* | 0 | 0 | 0 | 0 | 4 | 0 | 4 |
| Salvin's Albatross | *Diomedea cauta salvini* | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Bonaparte's Gull | *Larus philadelphia* | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Black Noddy | *Anous minutus* | 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 | *Sterna hirundo* | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| Double-crested Cormorant | *Phalacrocorax auritus* | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Herring Gull | *Larus argentatus* | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Murphy's Petrel | *Pterodroma ultima* | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Tahiti/Phoenix Petrel | *Pterodroma rostrata/alba* | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Flesh-footed Shearwater | *Puffinus carneipes* | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| Wedge-tailed Shearwater (intermediate morph) | *Puffinus pacificus* | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| White-vented Storm-petrel | *Oceanites gracilis* | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Laysan Albatross | *Diomedea immutabilis* | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Peruvian Diving Petrel | *Pelecanoides garnoti* | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Northern Fulmar (dark morph) | *Fulmarus glacialis* | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Northern Fulmar (light morph) | *Fulmarus glacialis* | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| California Gull | *Larus californicus* | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Glaucous-winged Gull | *Larus glaucescens* | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Blue Petrel | *Halobaena caerulea* | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Kermadec Petrel (intermediate morph) | *Pterodroma neglecta* | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Humboldt Penguin | *Spheniscus humboldti* | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Newell's Shearwater | *Puffinus newelli* | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Buller's (New Zealand) Shearwater | *Puffinus bulleri* | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Slender-billed Shearwater | *Puffinus tenuirostris* | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Wilson's Storm-petrel | *Oceanites oceanicus* | 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 | *Sterna fuscata* | 6712 | 4996 | 217 | 5364 | 787 | 18076 |
| Juan Fernandez Petrel | *Pterodroma externa* | 3589 | 2391 | 1178 | 770 | 39 | 7967 |
| Wedge-tailed Shearwater (dark morph) | *Puffinus pacificus* | 2705 | 1947 | 293 | 629 | 12 | 5586 |
| Wedge-tailed Shearwater (light morph) | *Puffinus pacificus* | 610 | 202 | 664 | 660 | 0 | 2136 |
| Red-footed Booby | *Sula sula* | 9 | 821 | 192 | 89 | 103 | 1214 |
| Leach's Storm-petrel (white-rumped) | *Oceanodroma leucorhoa* | 124 | 98 | 141 | 529 | 181 | 1073 |
| Brown Booby | *Sula leucogaster* | 0 | 260 | 179 | 54 | 485 | 978 |
| Masked/Nazca Booby | *Sula dactylatra/granti* | 1 | 43 | 33 | 475 | 0 | 552 |
| Black Tern | *Chlidonias niger* | 0 | 3 | 401 | 2 | 72 | 478 |
| Audubon's Shearwater | *Puffinus lherminieri* | 0 | 2 | 307 | 1 | 5 | 315 |
| Wedge-rumped (Galápagos) Storm-petrel | *Oceanodroma tethys* | 62 | 102 | 34 | 98 | 3 | 299 |
| Masked Booby | *Sula dactylatra* | 18 | 3 | 17 | 199 | 22 | 259 |
| Red Phalarope | *Phalaropus fulicarius* | 0 | 23 | 50 | 97 | 77 | 247 |
| White-winged Petrel | *Pterodroma leucoptera* | 58 | 171 | 2 | 2 | 0 | 233 |
| Leach's Storm-petrel (dark-rumped) | *Oceanodroma leucorhoa* | 8 | 0 | 121 | 89 | 11 | 229 |
| Pink-footed Shearwater | *Puffinus creatopus* | 15 | 13 | 100 | 44 | 4 | 176 |
| Tahiti Petrel | *Pseudobulweria rostrata* | 54 | 18 | 72 | 24 | 0 | 168 |
| Red-necked (Northern) Phalarope | *Phalaropus lobatus* | 1 | 45 | 12 | 61 | 38 | 157 |
| Arctic Tern | *Sterna paradisaea* | 0 | 96 | 52 | 0 | 0 | 148 |
| Common Tern | *Sterna hirundo* | 0 | 0 | 4 | 0 | 139 | 143 |
| Wedge-tailed Shearwater (unidentified morph) | *Puffinus pacificus* | 20 | 0 | 22 | 83 | 0 | 125 |
| White Tern | *Gygis alba* | 46 | 45 | 22 | 2 | 0 | 115 |
| Arctic/Common Tern | *Sterna paradisaea/hirundo* | 0 | 0 | 97 | 0 | 1 | 98 |
| Pomarine Jaeger | *Stercorarius pomarinus* | 0 | 3 | 13 | 69 | 12 | 97 |
| Nazca Booby | *Sula granti* | 1 | 39 | 48 | 2 | 0 | 90 |
| Great Frigatebird | *Fregata minor* | 2 | 43 | 4 | 26 | 1 | 76 |
| Brown Noddy | *Anous stolidus* | 0 | 66 | 6 | 2 | 0 | 74 |
| Parasitic Jaeger | *Stercorarius parasiticus* | 0 | 36 | 8 | 19 | 1 | 64 |
| Passerines | | 0 | 2 | 46 | 11 | 0 | 59 |
| Unidentified Frigatebird | *Fregata* spp. | 8 | 7 | 15 | 28 | 0 | 58 |
| Black Storm-petrel | *Oceanodroma melania* | 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 | *Phaethon rubricauda* | 23 | 15 | 3 | 9 | 4 | 54 |
| Sooty Shearwater | *Puffinus griseus* | 6 | 8 | 0 | 6 | 28 | 48 |
| Christmas Island Shearwater | *Puffinus nativitatus* | 15 | 21 | 3 | 5 | 0 | 44 |
| Kermadec Petrel | *Pterodroma neglecta* | 25 | 10 | 4 | 3 | 0 | 42 |
| Red-billed Tropicbird | *Phaethon aethereus* | 2 | 8 | 13 | 16 | 1 | 40 |
| Bulwer's Petrel | *Bulweria bulwerii* | 32 | 4 | 0 | 0 | 0 | 36 |
| Phoenix Petrel | *Pterodroma alba* | 29 | 4 | 0 | 0 | 0 | 33 |
| Harcourt's (Band-rumped) Storm-petrel | *Oceanodroma castro* | 0 | 28 | 3 | 0 | 0 | 31 |
| Leach's Storm-petrel (unidentified morph) | *Oceanodroma leucorhoa* | 1 | 0 | 0 | 19 | 3 | 23 |
| Black-winged Petrel | *Pterodroma nigripennis* | 14 | 7 | 0 | 0 | 0 | 21 |
| Leach's Storm-petrel (intermediate-rumped) | *Oceanodroma leucorhoa* | 4 | 1 | 3 | 6 | 7 | 21 |
| Sabine's Gull | *Larus sabini* | 0 | 13 | 8 | 0 | 0 | 21 |
| Buller's (New Zealand) Shearwater | *Puffinus bulleri* | 3 | 16 | 0 | 0 | 0 | 19 |
| Cook's Petrel | *Pterodroma cookii* | 8 | 6 | 1 | 0 | 3 | 18 |
| Newell's Shearwater | *Puffinus newelli* | 9 | 4 | 0 | 0 | 0 | 13 |
| Western Gull | *Larus occidentalis* | 8 | 0 | 0 | 0 | 3 | 11 |
| Herald Petrel | *Pterodroma heraldica* | 8 | 2 | 0 | 0 | 0 | 10 |
| Long-tailed Jaeger | *Stercorarius longicaudus* | 1 | 5 | 0 | 1 | 3 | 10 |
| Pycroft's Petrel | *Pterodroma pycrofti* | 8 | 2 | 0 | 0 | 0 | 10 |
| Shorebirds | | 1 | 6 | 3 | 0 | 0 | 10 |
| Black-footed Albatross | *Diomedea nigripes* | 1 | 0 | 0 | 0 | 8 | 9 |
| Magnificent Frigatebird | *Fregata magnificens* | 0 | 1 | 1 | 6 | 1 | 9 |
| Least Tern | *Sterna antillarum* | 0 | 0 | 8 | 0 | 0 | 8 |
| Parkinson's Petrel | *Procellaria parkinsoni* | 0 | 3 | 5 | 0 | 0 | 8 |
| Hawaiian/Dark-rumped Petrel | *Pterodroma sandwichensis/phaeopygia* | 3 | 4 | 0 | 0 | 0 | 7 |
| South Polar Skua | *Stercorarius maccormicki* | 5 | 0 | 0 | 0 | 0 | 5 |
| Stejneger's Petrel | *Pterodroma longirostris* | 2 | 2 | 0 | 0 | 1 | 5 |
| Murphy's Petrel | *Pterodroma ultima* | 1 | 3 | 0 | 0 | 0 | 4 |
| Tahiti/Phoenix Petrel | *Pterodroma rostrata/alba* | 4 | 0 | 0 | 0 | 0 | 4 |
| Kermadec/Herald Petrel | *Pterodroma neglecta/heraldica* | 2 | 0 | 0 | 0 | 1 | 3 |
| Laughing Gull | *Larus atricilla* | 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 | *Phaethon lepturus* | 3 | 0 | 0 | 0 | 0 | 3 |
| Xantus'/Craveri's Murrelet | *Synthliboramphus hypoleuca/craveri* | 3 | 0 | 0 | 0 | 0 | 3 |
| Bridled Tern | *Sterna anaethetus* | 0 | 0 | 2 | 0 | 0 | 2 |
| Henderson Petrel | *Pterodroma atrata* | 1 | 0 | 1 | 0 | 0 | 2 |
| Herring Gull | *Larus argentatus* | 0 | 0 | 0 | 0 | 2 | 2 |
| Least Storm-petrel | *Oceanodroma microsoma* | 0 | 0 | 0 | 0 | 2 | 2 |
| Swallow-tailed Gull | *Larus furcatus* | 0 | 1 | 1 | 0 | 0 | 2 |
| Townsend's Shearwater | *Puffinus auricularis* | 0 | 0 | 0 | 0 | 2 | 2 |
| White-bellied Storm-petrel | *Fregetta grallaria* | 0 | 2 | 0 | 0 | 0 | 2 |
| Black Noddy | *Anous minutus* | 0 | 1 | 0 | 0 | 0 | 1 |
| Blue-footed Booby | *Sula nebouxii* | 0 | 0 | 0 | 1 | 0 | 1 |
| Collared Petrel | *Pterodroma brevipes* | 1 | 0 | 0 | 0 | 0 | 1 |
| Flesh-footed Shearwater | *Puffinus carneipes* | 1 | 0 | 0 | 0 | 0 | 1 |
| Jouanin's Petrel | *Bulweria fallax* | 1 | 0 | 0 | 0 | 0 | 1 |
| Markham's Storm-petrel | *Oceanodroma markhami* | 0 | 0 | 0 | 0 | 1 | 1 |
| White-faced Storm-petrel | *Pelagodroma marina* | 0 | 1 | 0 | 0 | 0 | 1 |
| | **Totals** | 14268 | 11655 | 4459 | 9507 | 2063 | 41952 |

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 Trans-mission Date | No. of Days Transmitting | Distance Traveled (km) |
|---|---|---|---|---|---|---|---|
| *Jordan* | *Caretta caretta* | Unknown (Juvenile) | 58.8 | 08/07/99 | 05/19/00 | 285 | 2628 |
| *Jordan* | *Caretta caretta* | Unknown (Juvenile) | 63.8 | 08/03/99 | 06/01/00 | 303 | 1561 |
| *Jordan* | *Lepidochelys olivacea* | Female | 65.3 | 09/07/99 | 10/03/99 | 25 | 790 |
| *Jordan* | *Lepidochelys olivacea* | Male | 62.6 | 09/07/99 | 09/29/99 | 22 | 349 |
| *Jordan* | *Lepidochelys olivacea* | Female | 65.4 | 09/30/99 | 12/05/99 | 67 | 425 |
| *McArthur* | *Lepidochelys olivacea* | Female | 63.5 | 10/07/99 | 06/17/00 | 254 | 2300 |
| *McArthur* | *Lepidochelys olivacea* | Male | 64.3 | 10/07/99 | 110/8/99 | 32 | 1068 |
| *McArthur* | *Lepidochelys olivacea* | Male | 62.8 | 10/13/99 | 04/29/00 | 118 | 2545 |
| *McArthur* | *Lepidochelys olivacea* | Unknown (Juvenile) | 45.4 | 10/14/99 | 10/19/99 | 5 | 103 |
| *McArthur* | *Lepidochelys olivacea* | Female | 62.5 | 10/20/99 | 03/02/00 | 150 | 4280 |

[1]SCL = 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 |
|---|---|---|---|---|---|---|---|
| *Exocoetus* 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 |
| *Cheilopogon* spp. | 351 | 496 | 371 | 198 | 48 | 58 | 1522 |
| *Cypselurus pinnatibarbatus* | 114 | 0 | 0 | 2 | 0 | 0 | 116 |
| *Cypselurus callopterus* | 31 | 0 | 10 | 0 | 0 | 2 | 43 |
| *Hirundichthys* 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 |
|---|---|---|---|---|---|---|
| *Exocoetus* spp. | 23277 | 13194 | 617 | 7492 | 10445 | 55025 |
| Four-winged flyingfish | 2049 | 939 | 579 | 1370 | 1217 | 6154 |
| Unidentified flyingfish | 845 | 6 | 303 | 664 | 254 | 2072 |
| *Cheilopogon* spp. | 0 | 0 | 255 | 393 | 76 | 724 |
| *Hirundichthys* spp. | 0 | 0 | 0 | 32 | 0 | 32 |
| *Cypselurus callopterus* | 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 | 100 | 1 | 1 | 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 = 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 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 | 300 | 1 | 0 | 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 |
|---|---|---|
| *H. sobrinus* | 72 | 3380 |
| *H. micans* | 125 | 2427 |
| *H. sericeus* | 15 | 278 |
| *H. splendens* | 17 | 97 |

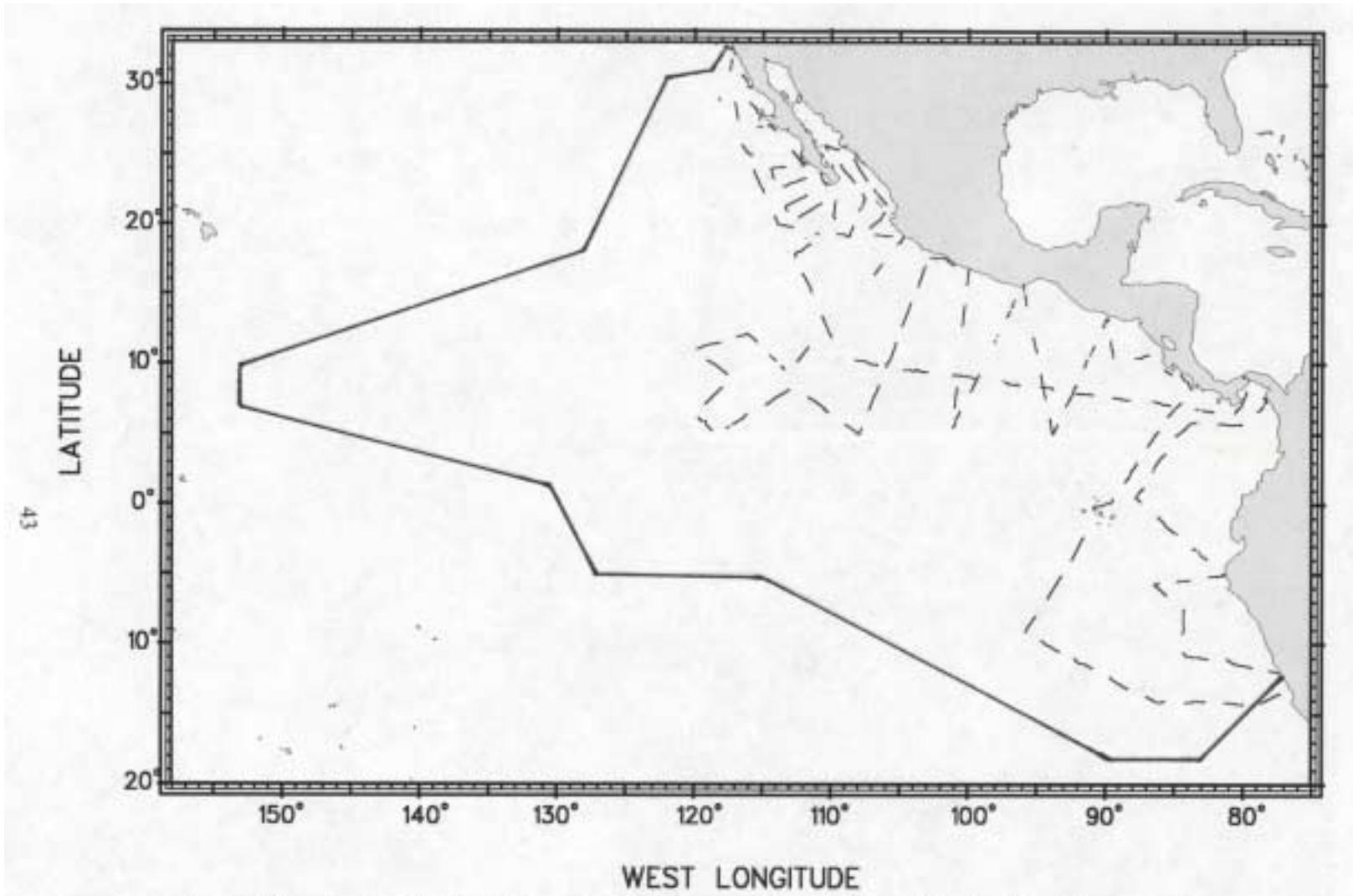


Figure 1. Tracklines, *Jordan*, 28 July – 9 December 1999. The tracklines are indicated by the dashed lines; the study area boundary is indicated by the solid line.

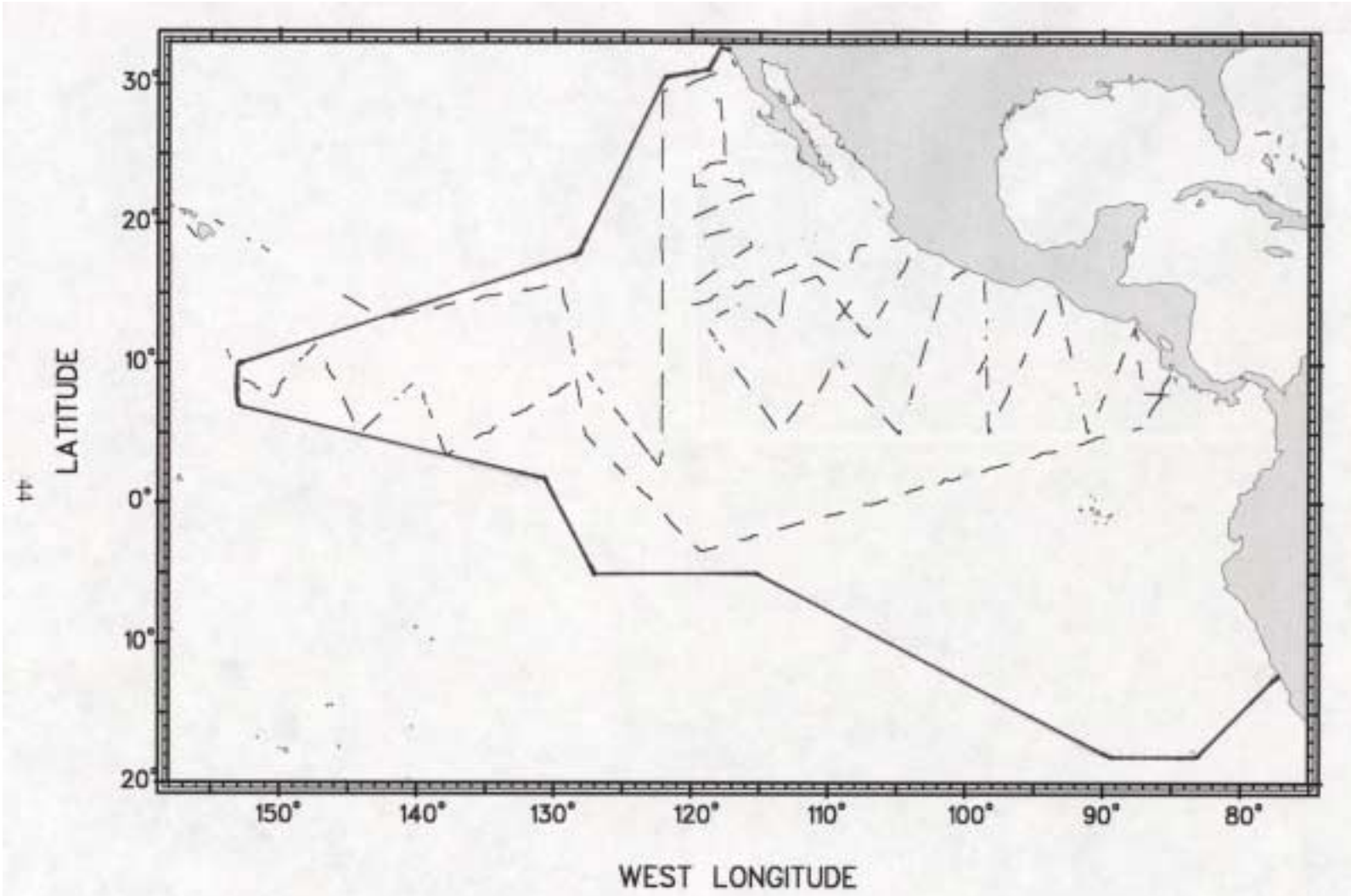


Figure 2. Tracklines, *McArthur*, 28 July – 9 December 1999. The tracklines are indicated by the dashed lines; the study area boundary is indicated by the solid line.

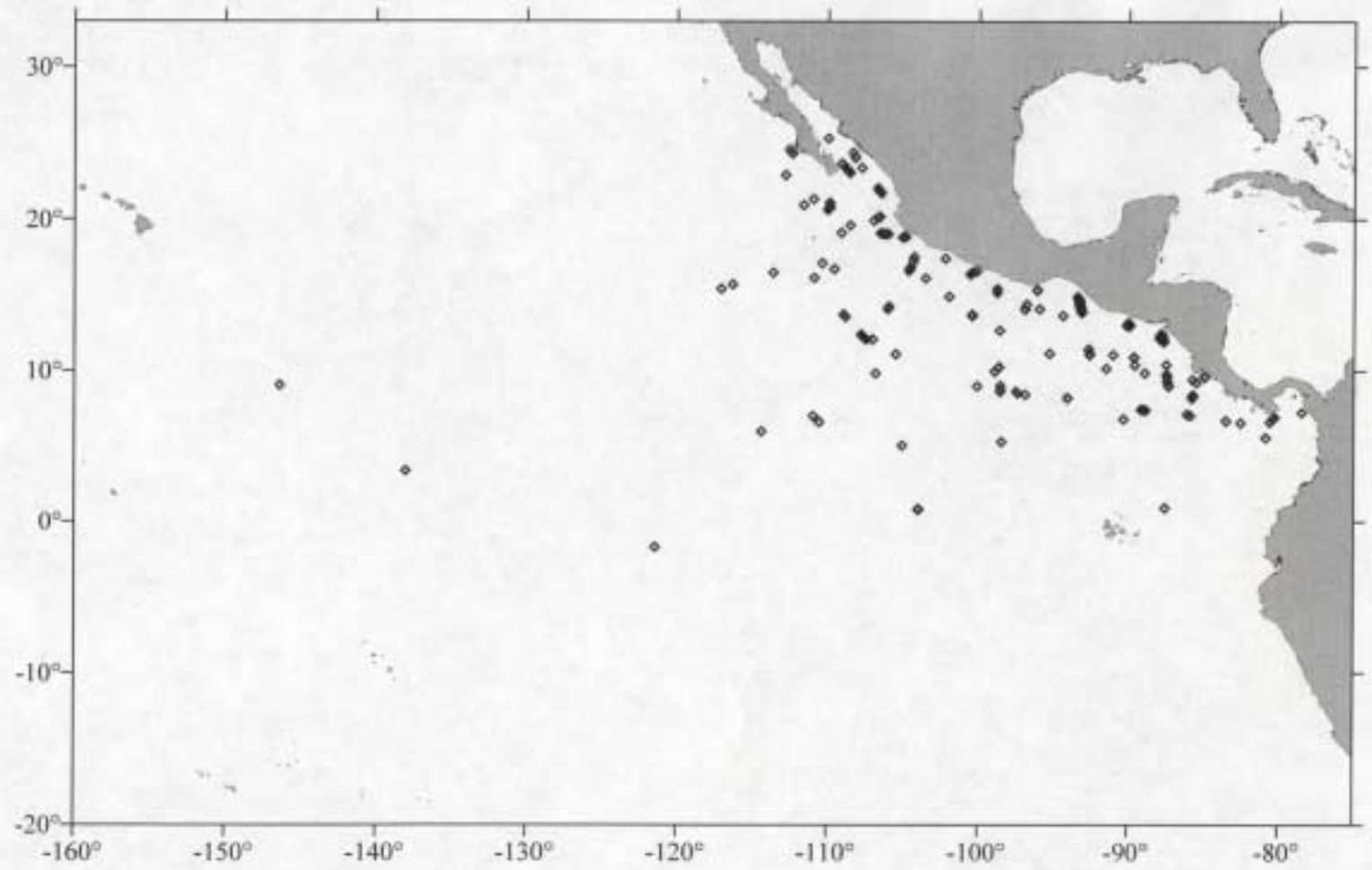


Figure 3. Locations of olive ridley turtle (*Lepidochelys olivacea*) sightings recorded from the *Jordan* and the *McArthur*, 28 July – 9 December 1999.

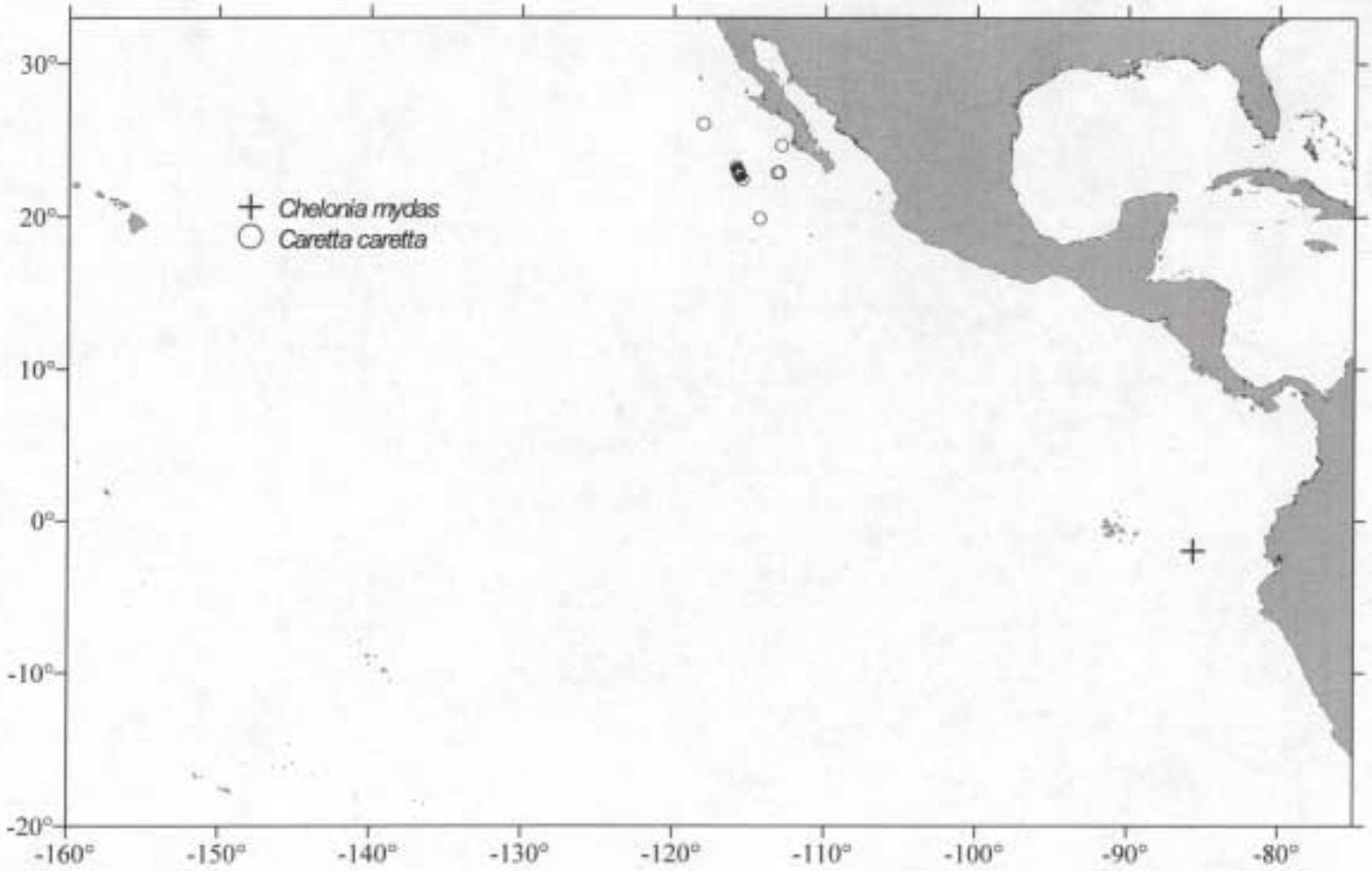


Figure 4. Locations of green turtle (*Chelonia mydas*) and loggerhead turtle (*Caretta caretta*) sightings recorded from the *Jordan* and the *McArthur*, 28 July – 9 December 1999.

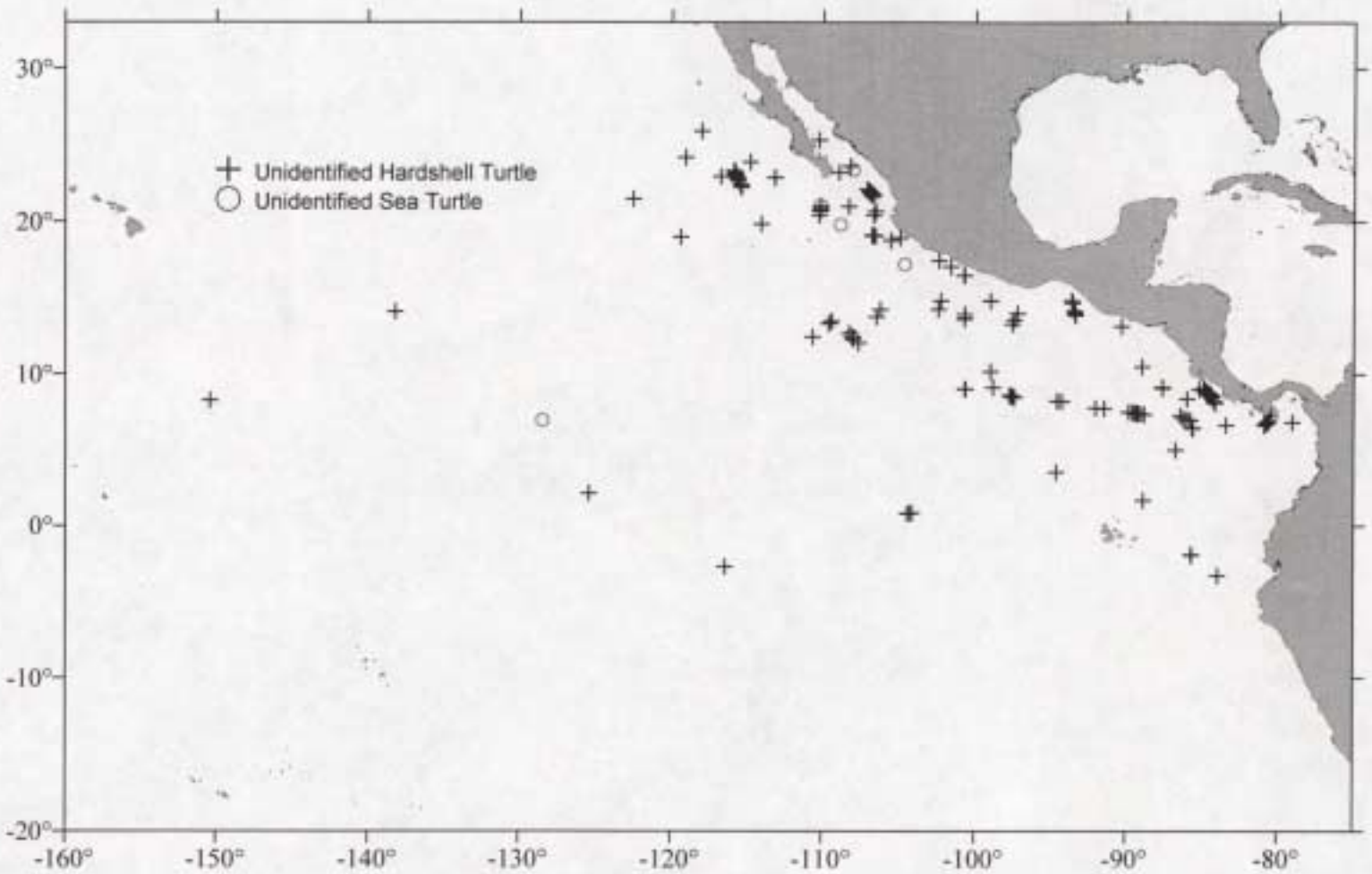


Figure 5. Locations of unidentified hardshell turtles (Cheloniidae) and unidentified sea turtle sightings recorded from the *Jordan* and the *McArthur*, 28 July – 9 December 1999.

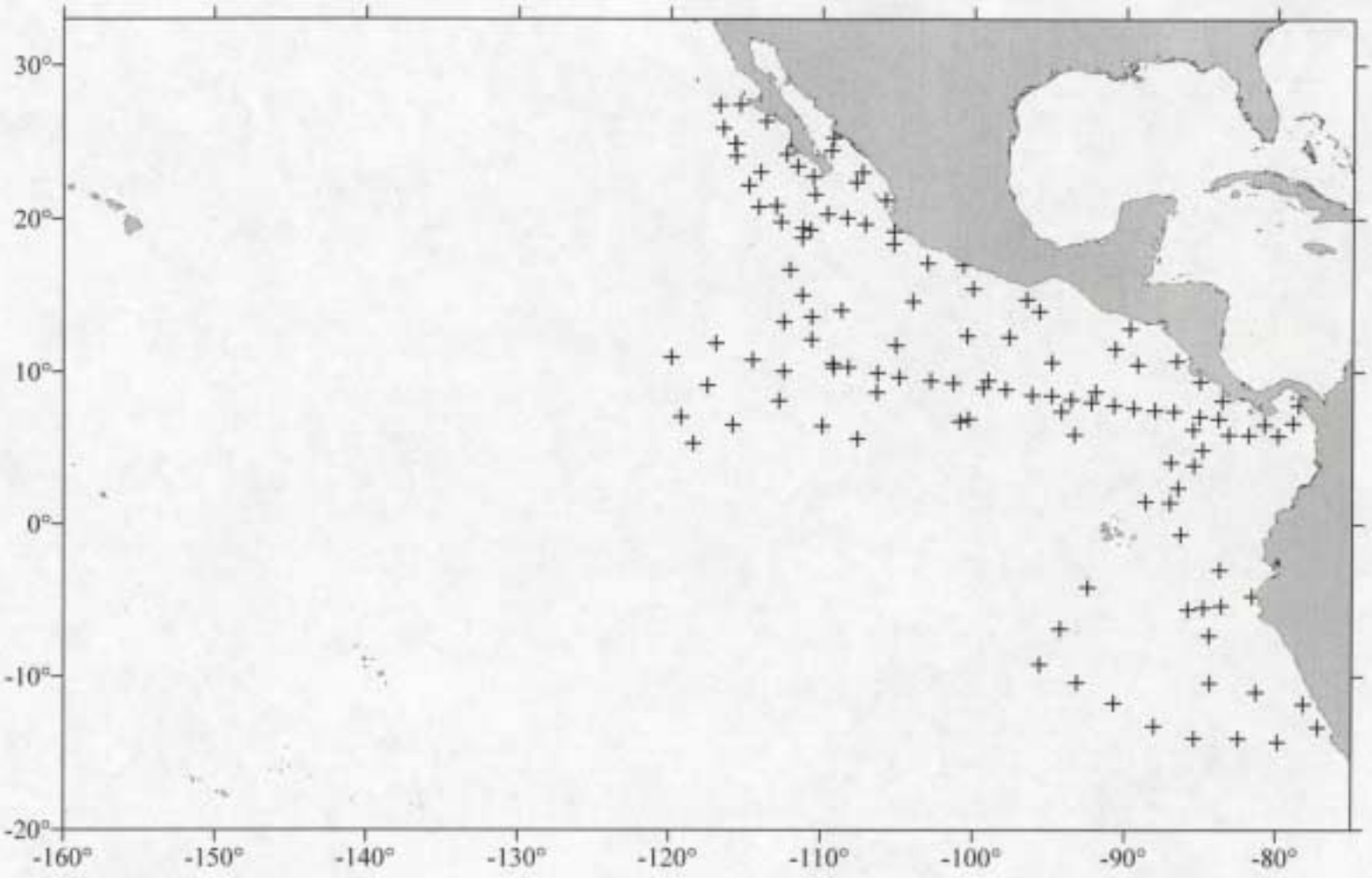


Figure 6. Locations of dipnet stations, *Jordan*, 28 July – 9 December 1999.

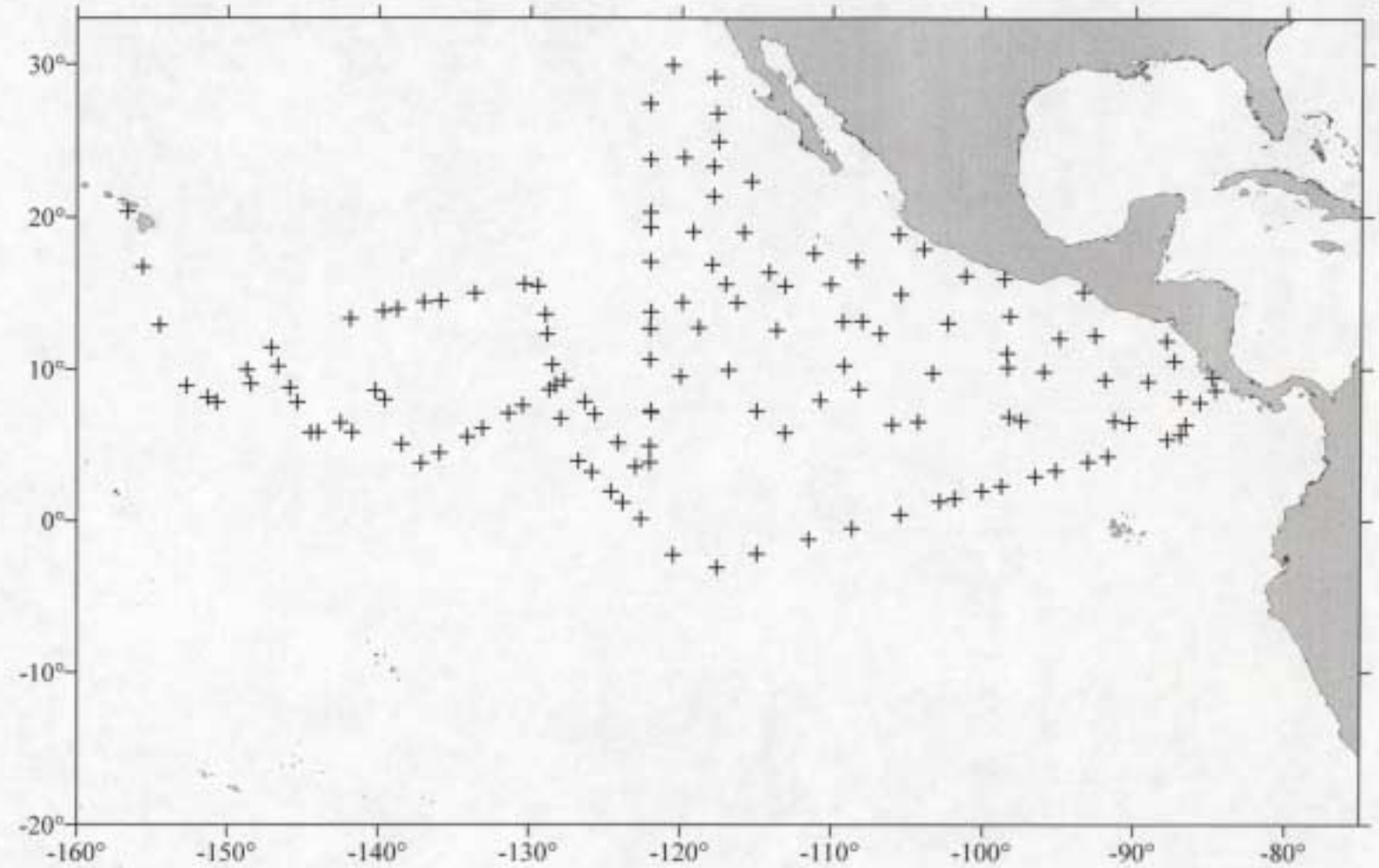


Figure 7. Locations of dipnet stations, *McArthur*, 28 July – 9 December 1999.

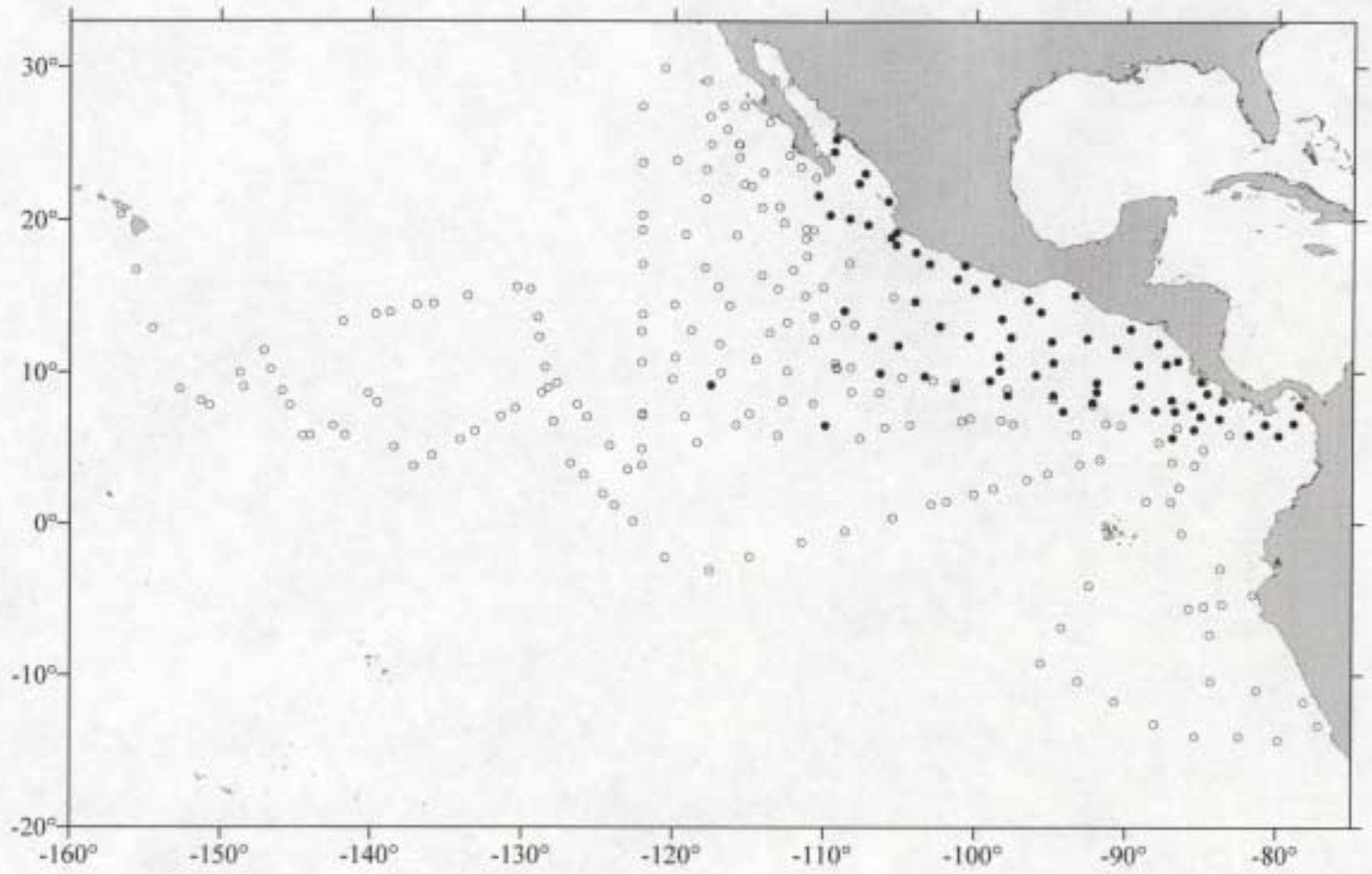


Figure 8. Locations of *Halobates sobrinus* ( • ) collected from the *Jordan* and the *McArthur*, 28 July – 9 December 1999. Open circles ( ○ ) indicate locations of dipnet stations where *H. sobrinus* were not collected.

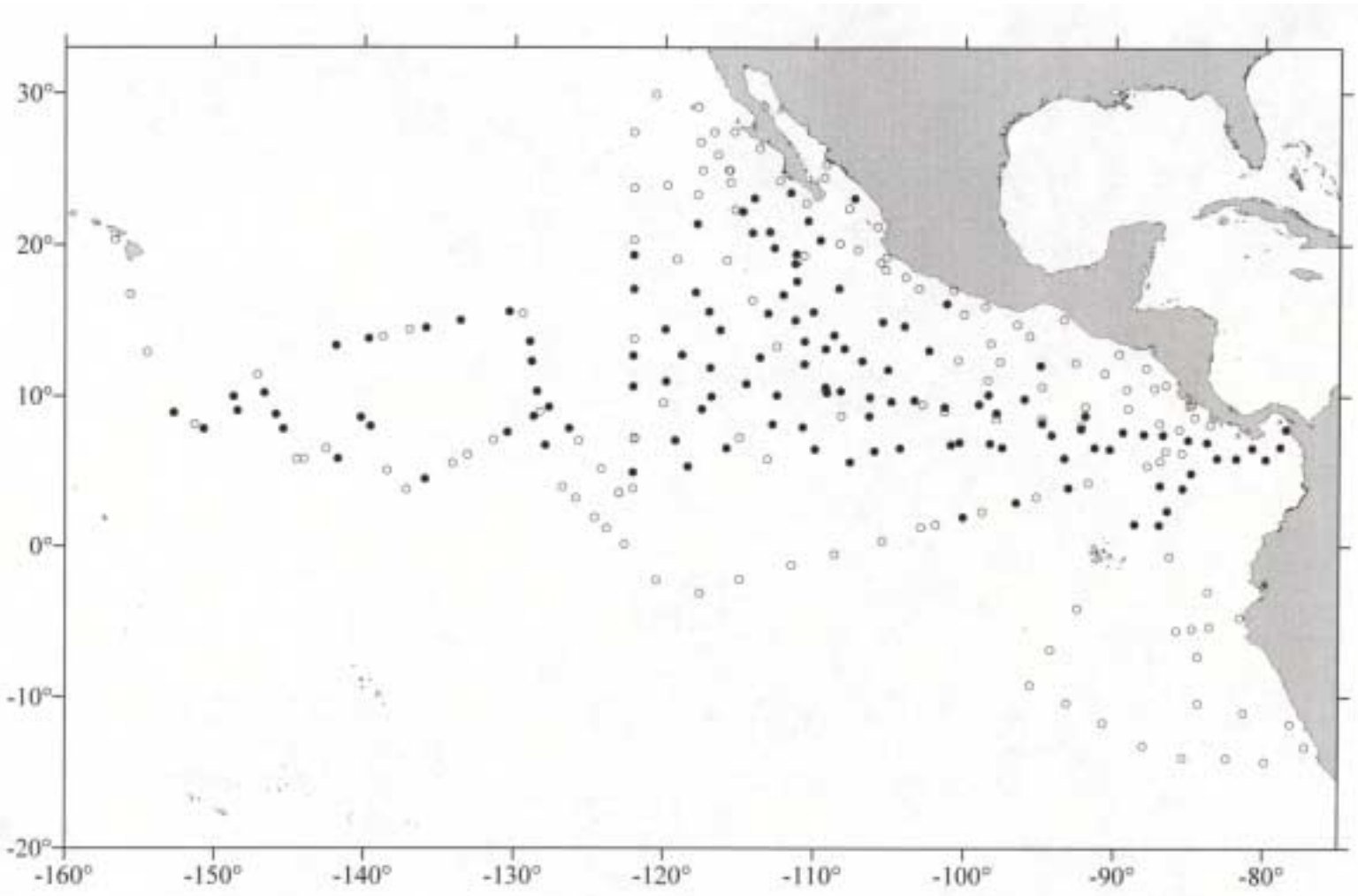


Figure 9. Locations of *Halobates micans* ( • ) collected from the *Jordan* and the *McArthur*, 28 July – 9 December 1999. Open circles ( ○ ) indicate locations of dipnet stations where *H. micans* were not collected.

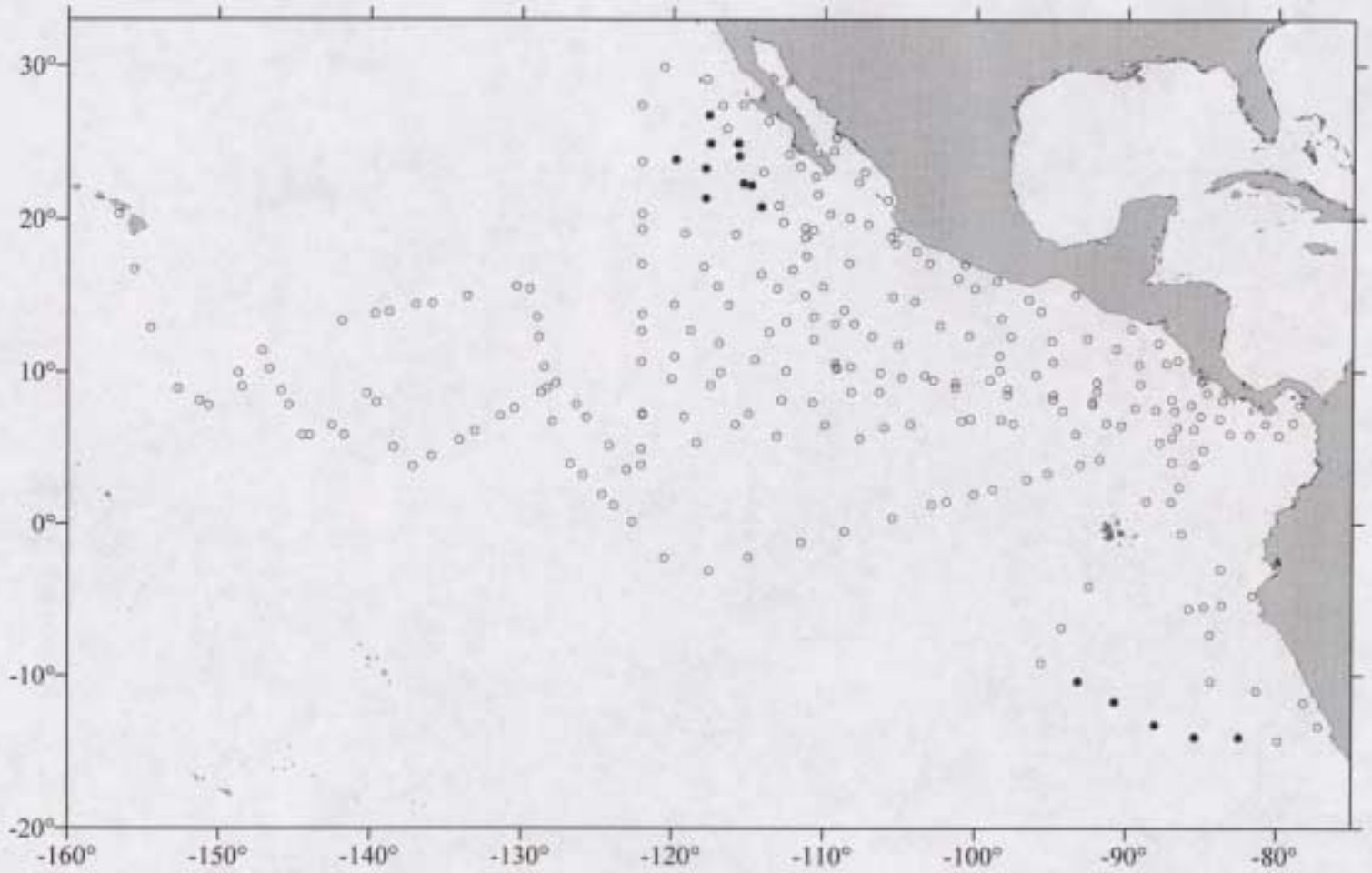


Figure 10. Locations of *Halobates sericeus* ( • ) collected from the *Jordan* and the *McArthur*, 28 July – 9 December 1999. Open circles ( ◦ ) indicate locations of dipnet stations where *H. sericeus* were not collected.

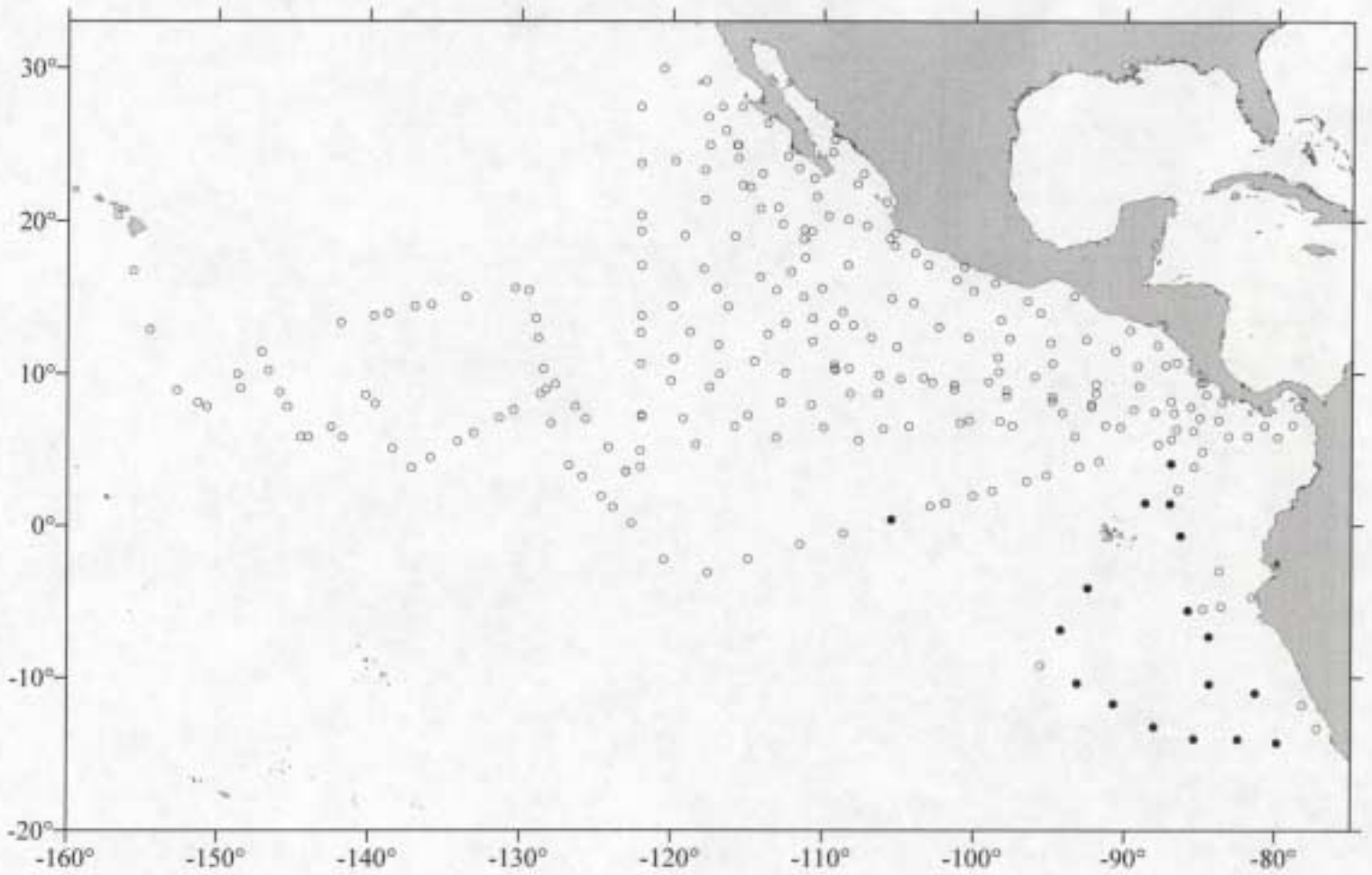


Figure 11. Locations of *Halobates splendens* ( • ) collected from the *Jordan* and the *McArthur*, 28 July – 9 December 1999. Open circles ( ○ ) indicate locations of dipnet stations where *H. splendens* were not collected.

# APPENDIX 1

## SCIENTIFIC PERSONNEL 1999

| Name | Position | Affiliation[1] | D. S. Jordan Leg # | | | | | | McArthur Leg # | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 |
| Lisa Ballance | Chief Scientist | SWFSC | | | x | x | x | | x | | | | |
| Jay Barlow | Cruise Leader | SWFSC | | | | | | | | | x | | |
| Susan Chivers | Cruise Leader | SWFSC | | | | | | | | | | x | |
| Mark Lowry | Cruise Leader | SWFSC | | | | | | | | | | | x |
| Barbara Taylor | Cruise Leader | SWFSC | | | | | | | | x | | | |
| Robert Pitman | Cruise Leader/ Birder/Photogrammetrist | SWFSC | x | x | x | x | x | x | | | | | |
| James Cotton | ID Specialist | SWFSC | | | | x | x | x | x | x | | | |
| Doug Kinzey | ID Specialist | SWFSC | x | x | x | | | | | | x | x | x |
| Paula Olson | ID Specialist | SWFSC | x | x | x | | | | | | x | x | x |
| Richard Rowlett | ID Specialist | SWFSC | | | | x | x | x | x | x | | | |
| Isabel Beasley | Mammal Observer | SWFSC | | | | x | x | x | x | x | | | |
| Jorge Del Angel | Mammal Observer | SWFSC | x | x | x | | | | | | x | x | x |
| Laura Morse | Mammal Observer | SWFSC | | | | x | x | x | x | x | | | |
| Shannon Rankin | Mammal Observer | SWFSC | x | x | x | | | | | | x | x | x |
| Juan Carlos Salinas | Mammal Observer | SWFSC | x | x | x | | | | | | x | x | x |
| Ernesto Vázquez | Mammal Observer | SWFSC | | | | x | x | x | x | x | | | |
| Suzanne Yin | Mammal Observer | SWFSC | x | x | x | | | | | | x | x | x |
| Elizabeth Zúñiga | Mammal Observer | SWFSC | | | | x | x | x | x | x | | | |
| Dawn Breese | Bird Observer | SWFSC | | | | | | x | | | | | |
| Michael Force | Bird Observer | SWFSC | | | | x | x | x | x | x | | | |
| Chris Hoefer | Bird Observer | SWFSC | | | | | | | x | x | x | x | x |
| Brett Jarrett | Bird Observer | SWFSC | x | x | x | | | | | | x | x | x |
| Cornelia Oedekoven | Bird Observer | SWFSC | x | x | x | | | | | | | | |
| Roy Dehart | Helicopter Mechanic | AOC | x | | x | | x | | | | | | |
| Ron Hegelson | Helicopter Mechanic | AOC | | x | | x | | x | | | | | |
| LT Debora Barr | Helicopter Pilot | AOC | | x | | | x | | | | | | |

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 | | | x | | | | | | | |
| LT Julie Helmers | Helicopter Pilot | AOC | | | x | x | | x | | | | | |
| Kerri Danil | Oceanographer | SWFSC | | | | | | x | | | | | |
| Kerry Kopitsky | Oceanographer | SWFSC | x | x | x | x | x | x | | | | | |
| Kathy Noyes | Oceanographer | SWFSC | | | | | | | x | x | x | x | x |
| Valerie Philbrick | Oceanographer | SWFSC | x | x | x | x | x | | | | | | |
| John Brandon | Photogrammetrist | SWFSC | | x | x | | | | | | | | |
| Katie Cramer | Photogrammetrist | SWFSC | x | | | | | | | | | | |
| Jim Gilpatrick | Photogrammetrist | SWFSC | | | x | x | x | | | | | | |
| Morgan Lynn | Photogrammetrist | SWFSC | x | x | | | | x | | | | | |
| Charles Stinchcomb | Photogrammetrist | SWFSC | | | | | x | x | | | | | |
| Paola Amador | Visiting Scientist | Ecuador | | | | | | | | x | | | |
| Gill Braulik | Visiting Scientist | Great Britain | | | | | | | | x | | | |
| Pedro Castaneda | Visiting Scientist | Armada de Ecuador | | | | | | | | | | | x |
| Lanna Cheng | Visiting Scientist | SIO | | | | | | | | | | x | |
| Arelí Cortés | Visiting Scientist | INP, Mexico | | | | | | | | | | | x |
| Peter Dutton | Visiting Scientist | SWFSC | | | | | | | | | x | | |
| Jaume Forcada | Visiting Scientist | SWFSC | | | | | | | | x | | | |
| Erica Goetze | Visiting Scientist | UCSD | | | | | | | x | | | | |
| Jan Hodder | Visiting Scientist | University of Oregon | | | | | x | | | | | | |
| Kathy Hough | Visiting Scientist | SWFSC | | | | | | | | | | x | |
| Julie Oswald | Visiting Scientist | SDSU | | | | | | | x | | | | |
| Carl Safina | Visiting Scientist | Nat'l Audubon Society | | | | x | | | | | | | |
| Milena Schreiber | Visiting Scientist | IMARPE, Peru | | | | | | | | | | | x |
| Luis Vilchis | Visiting Scientist | UCSD | | | | x | | | | | | | |
| Edith Zárate | Visiting Scientist | INP, Mexico | | | | | | | | | x | | |
| Raul Zamora | Visiting Scientist | Armada de Guatemala | | | | | | | | | | x | |

[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 Deigo State University; SIO – Scripps Institution of Oceanography; UCSD – University of California, San Diego.

# RECENT TECHNICAL MEMORANDUMS

Copies of this and other NOAA Technical Memorandums are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22167. Paper copies vary in price. Microfiche copies cost $9.00. Recent issues of NOAA Technical Memorandums from the NMFS Southwest Fisheries Science Center are listed below:

NOAA-TM-NMFS-SWFSC-291 Ichthyoplankton and station data for surface tows taken during the 1992 eastern tropical Pacific dolphin survey on the research vessels *David Starr Jordan* and *McArthur*.
W. WATSON, R.L. CHARTER, H.G. MOSER, and S.B. REILLY
(March 2000)

292 The Hawaiian Monk Seal in the Northwestern Hawaiian Islands, 1998.
T.C. JOHANOS and J.D. BAKER (editors)
(APRIL 2000)

293 Marine mammal data collected during a survey in the eastern tropical Pacific Ocean aboard the NOAA ships *McArthur* and *David Starr Jordan*, July 28 - December 9, 1999.
D. KINZEY, T. GERRODETTE, J. BARLOW, A. DIZON, W. PERRYMAN, and P. OLSON
(June 2000)

294 Identification manual for dietary vegetation of the Hawaiian green turtle Chelonia mydas.
D.J. RUSSELL and G.H. BALAZS
(June 2000)

295 A comparative analysis of humpback whale songs recorded in pelagic waters of the eastern North Pacific: preliminary findings and implications for discerning migratory routes and assessing breeding stock identity.
T. NORRIS, J. JACOBSEN, and S. CERCHIO
(June 2000)

296 Seasonal variability of global mixed layer depth from WOD98 temperature and salinity profiles.
G.I. MONTEREY and L.M. deWITT
(July 2000)

297 The physical oceanography off the California coast during May-June, 1998: A summary of CTD data from pelagic juvenile rockfish surveys.
K.M. SAKUMA, F.B. SCHWING, M.H. PICKETT, D. ROBERTS and S. RALSTON
(August 2000)

298 Summary of seabird, marine turtle, and surface fauna data collected during a survey in the eastern tropical Pacific ocean, July 30 - December 9, 1998.
P.A. OLSON, R.L. PITMAN, L.T. BALLANCE, and S.B. REILLY
(August 2000)

299 The physical oceanography off the Central California coast during March-April and May-June, 1990: A summary of CTD data from pelagic juvenile rockfish surveys.
K.M. SAKUMA, F.B. SCHWING, M.H. PICKETT, and S. RALSTON
(September 2000)

300 U.S. Pacific marine mammal stock assessments: 2000.
K.A. FORNEY, J. BARLOW, M.M. MUTO, M. LOWRY, J. BAKER, G. CAMERON, J. MOBLEY, C. STINCHCOMB, and J.V. CARRETTA
(December 2000)