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DEVELOPMENT AND MANAGEMENT  
DEPARTMENT OF SEAFDEC**

**KUALA TERENGGANU, MALAYSIA**



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**PROPOSED FORMAT FOR THE CATCH-EFFORT STATISTICS  
FOR THE SOUTH CHINA SEA AREA**

by

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# CATCH-EFFORT STATISTICAL BULLETIN

## FOR THE SOUTH CHINA SEA AREA

### I. Category of Statistics

1. Annual Catch-effort Statistics
2. Monthly Catch-effort Statistics
3. Specific Data on Catch-effort.

### II. Data Collection System

MFRDMD/SEAFDEC prepares and sends the Questionnaire to the authority concerned in each country. AND THEN, MFRDMD compiles the Catch-effort Statistical Bulletin based upon the returns from each country.

### III. Questionnaire

1. Questionnaire
2. Notes on Completion of Questionnaire

# PROPOSED CONTENTS OF THE BULLETIN

FOREWORD

EXPLANATORY NOTES

## 1. General Notes

1.1 Data Collection

1.2 Time Reference

1.3 Standard Symbols and Unit of Catch

## 2. Notes on Statistics

2.1 Category of Statistics

2.2 Classification and Coverage of Fishing Gears

2.3 Classification and Fishing Boats

2.4 Coverage of Fishing Efforts

2.5 Others

DATA AVAILABILITY

1. Annual Catch-effort Statistics

2. Monthly Catch-effort Statistics

3. Specific Data on Catch-effort

STATISTICAL TABLES FOR 199\_

### I. Annual Catch-effort Statistics 199\_

1. Catch and Fishing Effort by Type of Fishing Gear

1.1 Otter Trawl

1.2 Pair Trawl

1.3 One Boat Purse Seine

1.4 Drift Gill Net

1.5 Longline

2. Catch and Fishing Effort by Type of Fishing Gear  
and by Size of Management

2.1 Otter Trawl

2.1.1 Less than 10 tons

2.1.2 10 - 20 tons

2.1.3 20 - 50 tons

2.1.4 50 - 100 tons

2.1.5 More than 100 tons

- 2.2 Pair Trawl
  - 2.2.1 Less than 10 tons
  - 2.2.2 10 - 20 tons
  - 2.2.3 20 - 50 tons
  - 2.2.4 50 - 100 tons
  - 2.2.5 More than 100 tons

- 2.3 One Boat Purse Seine
  - 2.3.1

- 2.4 Drift Gill Net
  - 2.4:1

## II. Monthly Catch-effort Statistics 199\_

- 1. Catch and Fishing Effort by Type of Fishing Gear and by Month

- 1.1 Malaysia

- 1.1.1 East coast of Peninsular Malaysia

- 1) Otter Trawl

- 1.1.2

- 1.2

- 2. Catch and Fishing Effort by Type of Fishing Gear, by Month and by Size of Management

- 2.1 Malaysia

- 2.1.1 East coast of Peninsular Malaysia

- 1) Otter Trawl

- 1)-1 Less than 10 tons

- 1)-2 10 to 20 tons

- 1)-3 20 to 50 tons

- 1)-4 50-100 tons

- 1)-5 More than 100 tons

- 2.2

## III. Specific Data on Catch-effort 199\_

- 1. Taiwan

- 1.1 Longline

- 2.

## ANNEX

- 1. Countries and Sub-areas for the Statistics
- 2. Classification and Code Number of Species
- 3. List of Marine Species with Codes of SEAFDEC and ISSCAAP (FAO)



## 1. General Notes

### 1.1 Data Collection

The data compiled in this Bulletin are, in principle, based upon the returns from the authority concerned in each country to a questionnaire prepared by the Marine Fishery Resources Development and Management Department, South East Asian Fisheries Development Center (SEAFDEC).

### 1.2 Time Reference

Data in this Bulletin refer to the year 199\_.

### 1.3 Standard Symbols and Unit of Catch

The following standard symbols are used throughout the tables in this Bulletin:

- ... = Not available
- = Magnitude zero or not applicable

Catch quantity is shown in metric ton. However, there are some exceptions in the section of "III. Specific Data on catch-effort".

## 2. Notes on Statistics

### 2.1 Category of Statistics

- 1) Annual Catch-effort Statistics --- Annual catch and effort data broken down into fishing gear and boat size category are described.
- 2) Monthly Catch-effort Statistics --- Monthly catch and effort data broken down into fishing gear and boat size category are described.
- 3) Specific Data on Catch-effort --- Data which cannot be applied for above two categories are described.

## 2.2 Classification and Coverage of Fishing Gears

Five major types of fishing gear are selected for the compilation of the annual and monthly statistics on marine catch by fishing gear, namely, Otter trawl, Pair trawl, One boat purse seine, Drift gill net and Longline. Please describe the particular or specified name of fishing gear, if available, in the questionnaire (please refer the following table which shows slight modified regional classification of fishing gear). The other kinds of fishing gear, especially Handline, Pole-and-line and Gill net, are defined for the statistics, descriptions of such information will be suggested.

Major group	Sub-group	<i>Examples</i> for particular name
1. Surrounding net	1.1 With purse line (a) One boat purse seine	<i>Anchovy purse seine</i> <i>Sardine purse seine</i> <i>Tuna purse seine, etc.</i> (Light luring purse seine, Payao luring purse seine)
	(b) Two boat purse seine 1.2 Without purse line	<i>Chinese purse seine</i> <i>Surrounding net, etc.</i>
2. Seine net	2.1 Beach seine	<i>Beach seine</i>
	2.2 Boat seine	<i>Danish seine, etc.</i>
3. Trawl	3.1 Otter trawl	<i>Bottom trawl</i> <i>Shrimp trawl</i>
	3.2 Otter trawl with boom	<i>Double rigger otter trawl</i> <i>Baby trawl</i>
	3.3 Pair trawl	<i>Pair trawl</i>
	3.4 Beam trawl	<i>Beam trawl</i> <i>Double rigger beam trawl, etc.</i>
4. Gill net	4.1 Drift gill net	<i>Spanish mackerel gill net</i> <i>Bonito gill net</i> <i>Trammel net</i>
	4.2 Set gill net	<i>Bottom gill net</i>
	4.3 Encircling gill net	<i>Encircling gill net</i>
5. Lift net	-	<i>Stick held dip net</i> <i>Stick held lift net</i> <i>Stick held cast net, etc.</i>
6. Trap	-	<i>Fyke net</i> <i>Stake trap, etc.</i>
7. Hook-and-line	-	<i>Pole-and-line</i> <i>Handline</i> <i>Longline, etc.</i>
8. Push net	-	<i>Portable push net</i> <i>Engine boat push net, etc.</i>
9. Shellfish and seaweed collecting gear	-	-
10. Others	-	-

### 2.3 Classification of Fishing Boats

Fishing boats are classified into classes by their tonnage (GRT class), which comprise five broad categories i.e., 10 (GRT<10), 10-20 ( $10 \leq \text{GRT} < 20$ ), 20-50 ( $20 \leq \text{GRT} < 50$ ), 50-100 ( $50 \leq \text{GRT} \leq 100$ ) and over 100 ( $100 < \text{GRT}$ ) tons.

### 2.4 Coverage of Fishing Efforts

The units of fishing effort are classified for each GRT class boat size.

- 1) Number of fishing units
- 2) Number of trips
- 3) Number of days
- 4) Number of hauls
- 5) Number of hours (operating hours are from start shooting until start hauling in trawling, and excluding searching hours for fish schools in purse seining)
- 6) Number of hooks (Longline only)

If other fishing efforts can be defined, describe the data in detail.

### 2.5 Others

Countries and sub-areas for the statistics, classification and code number of species, and list of marine species with codes of SEAFDEC and ISSCAAP (FAO) are shown in ANNEX.

## DATA AVAILABILITY

### 1. Annual Catch-effort Statistics

Country & sub-area	Fishing gear	Otter trawl	Pair trawl	One Boat Purse seine	Drift gill net	Long- line
Brunei		.....	.....	.....	.....	.....
Taiwan		.....	.....	.....	.....	.....
Hong Kong		..d..c	..d..c	.....	.....	.....
Indonesia		.....	.....	.....	.....	.....
West Sumatra		.....	.....	.....	.....	.....
South Java		.....	.....	.....	.....	.....
Malacca Strait, Sumatra		.....	.....	.....	.....	.....
East Sumatra		.....	.....	.....	.....	.....
North Java		.....	.....	.....	.....	.....
Bali, Nusa Tenggara		.....	.....	.....	.....	.....
Kalimantan		.....	.....	.....	.....	.....
Sulawesi		.....	.....	.....	.....	.....
Maluku and Irian Jaya		.....	.....	.....	.....	.....
Kampuchea		.....	.....	.....	.....	.....
Malaysia		UTDAHC	.....	UTDAHC	utdahc	u....c
West coast		UTDAHC	.....	UTDAHC	u....c	u....c
East coast		UTDAHC	.....	UTDAHC	u....c	u....c
Sabah		UTDAHC	.....	UTDAHC	utdahc	.....
Sarawak		.....	.....	.....	.....	.....
Philippines		.....	.....	.....	.....	.....
Luzon		.....	.....	.....	.....	.....
Visayas		.....	.....	.....	.....	.....
Mindanao		.....	.....	.....	.....	.....
Singapore		u.....	.....	.....	u.....	u.....
Thailand		UTDAHC	UTDAHC	UTDAHC	UTDAHC	.....
Gulf of Thailand		UTDAHC	UTDAHC	UTDAHC	UTDAHC	.....
Indian Ocean		UTDAHC	UTDAHC	UTDAHC	UTDAHC	.....
Viet Nam		.....	.....	.....	.....	.....

Abbreviations: U, number of Fishing units; T, number of trips; D, number of days; A, number of hauls; H, number of hours; C, catch of major species; each abbreviation shows an availability. When classified data by size of management were not available, abbreviation shows in the small letter.

## 2. Monthly Catch-effort Statistics

Country & sub-area	Fishing gear	Otter	Pair	One Boat	Drift	Long-
		trawl	trawl	Purse seine	gill net	line
Brunei		.....	.....	.....	.....	.....
Taiwan		.....	.....	.....	.....	.....
Hong Kong		..d..c	..d..c	.....	.....	.....
Indonesia		.....	.....	.....	.....	.....
West Sumatra		.....	.....	.....	.....	.....
South Java		.....	.....	.....	.....	.....
Malacca Strait, Sumatra		.....	.....	.....	.....	.....
East Sumatra		.....	.....	.....	.....	.....
North Java		.....	.....	.....	.....	.....
Bali, Nusa Tenggara		.....	.....	.....	.....	.....
Kalimantan		.....	.....	.....	.....	.....
Sulawesi		.....	.....	.....	.....	.....
Maluku and Irian Jaya		.....	.....	.....	.....	.....
Kampuchea		.....	.....	.....	.....	.....
Malaysia		UTDAHC	.....	UTDAHC	utdahc	U....c
West coast		UTDAHC	.....	utda.c	u....c	U....c
East coast		UTDAHC	.....	utda.c	u....c	U....c
Sabah		UTDAHC	.....	UTDAHC	utdahc	.....
Sarawak		.....	.....	.....	.....	.....
Philippines		.....	.....	.....	.....	.....
Luzon		.....	.....	.....	.....	.....
Visayas		.....	.....	.....	.....	.....
Mindanao		.....	.....	.....	.....	.....
Singapore		U.....	.....	.....	U.....	U.....
Thailand		UTDAHC	UTDAHC	UTDAHC	UTDAHC	.....
Gulf of Thailand		UTDAHC	UTDAHC	UTDAHC	UTDAHC	.....
Indian Ocean		UTDAHC	UTDAHC	UTDAHC	UTDAHC	.....
Viet Nam		.....	.....	.....	.....	.....

Abbreviations: U, number of Fishing units; T, number of trips; D, number of days; A, number of hauls; H, number of hours; C, catch of major species; each abbreviation shows an availability. When classified data by size of management were not available, abbreviation shows in the small letter.

### 3. Specific Data on Catch-effort

Country & sub-area	Fishing gear	Gear	Gear	Gear	Gear	Gear
	A	B	C	D	D	E
Brunei	.....	.....	.....	.....	.....	.....
Taiwan	.....	.....	.....	.....	.....	.....
Hong Kong	.....	.....	.....	.....	.....	.....
Indonesia	.....	.....	.....	.....	.....	.....
West Sumatra	.....	.....	.....	.....	.....	.....
South Java	.....	.....	.....	.....	.....	.....
Malacca Strait, Sumatra	.....	.....	.....	.....	.....	.....
East Sumatra	.....	.....	.....	.....	.....	.....
North Java	.....	.....	.....	.....	.....	.....
Bali, Nusa Tenggara	.....	.....	.....	.....	.....	.....
Kalimantan	.....	.....	.....	.....	.....	.....
Sulawesi	.....	.....	.....	.....	.....	.....
Maluku and Irian Jaya	.....	.....	.....	.....	.....	.....
Kampuchea	.....	.....	.....	.....	.....	.....
Malaysia	.....	.....	.....	.....	.....	.....
West coast	.....	.....	.....	.....	.....	.....
East coast	.....	.....	.....	.....	.....	.....
Sabah	.....	.....	.....	.....	.....	.....
Sarawak	.....	.....	.....	.....	.....	.....
Philippines	.....	.....	.....	.....	.....	.....
Luzon	.....	.....	.....	.....	.....	.....
Visayas	.....	.....	.....	.....	.....	.....
Mindanao	.....	.....	.....	.....	.....	.....
Singapore	.....	.....	.....	.....	.....	.....
Thailand	.....	.....	.....	.....	.....	.....
Gulf of Thailand	.....	.....	.....	.....	.....	.....
Indian Ocean	.....	.....	.....	.....	.....	.....
Viet Nam	.....	.....	.....	.....	.....	.....

Abbreviations: U, number of Fishing units; T, number of trips; D, number of days; A, number of hauls; H, number of hours; C, catch of major species; each abbreviation shows an availability. When classified data by size of management were not available, abbreviation shows in the small letter.

## 1. Countries and Sub-areas for the Statistics

Countries and sub-areas to be used in catch-effort statistics are as follows:

- 1) Brunei
  - 2) Taiwan
  - 3) Hong Kong
  - 4) Indonesia
    - 4)-1 West coast of Sumatra
    - 4)-2 South coast of Java
    - 4)-3 Malacca Straits
    - 4)-4 East coast of Sumatra
    - 4)-5 North coast of Java
    - 4)-6 Bali and Nusa Tenggara
    - 4)-7 Kalimantan
    - 4)-8 Sulawesi
    - 4)-9 Maluku and Irian Jaya
  - 5) Kampuchea
  - 6) Malaysia
    - 6)-1 West coast of Peninsular Malaysia
    - 6)-2 East coast of Peninsular Malaysia
    - 6)-3 Sabah
    - 6)-4 Sarawak
  - 7) Philippines
    - 7)-1 Luzon
    - 7)-2 Visayas
    - 7)-3 Mindanao
  - 8) Singapore .
  - 9) Thailand
    - 9)-1 Gulf of Thailand
    - 9)-2 Indian Ocean
  - 10) Viet Nam
- In Specific Data on Catch-effort, some particular areas which are defined in the remarks are applied.

## 2. Classification and Code Number of Species

### 1) Catch by Species

The catch should be broken down by species (group). The standard statistical classification of marine species was amended based on proposal made during the Seventh Regional Workshop on Fishery Statistics (1989) which were revised by taking comments into account from the countries after the Workshop.

## 2) Species Code Number

The species code number previously assigned by SEAFDEC Bulletin was changed from a "three-digit number" to "four-digit number". The four-digit number will be added to the list to allow for further sub-division of the species groups when required.

## 3) Definition of Species Code Number

The first two digits show the group number taken from ISSCAAP (FAO Yearbook). This group number should not be changed, even if the ISSCAAP grouping has changed. The last two digits show the particular species within a group, starting from 01.

## 4) Names of Family

In all cases the family names of species have been taken from a single reference (Greenwood, P. H., D. E. Rosen, S. H. Weitzman and G. S. Myers. 1966. Phyletic studies of teleostean fishes, with a provisional classification of living forms. Bull. Amer. Mus. Nat. Hist., 131(4): 339-456.) to allow clear selection, without taxonomical confusion, of teleostean fishes.

## 5) English and Scientific Name

As the English names for species vary quite considerably, the species codes have been based on the scientific name of the species.



3. List of Marine Species with Species Codes of SEAFDEC and ISSCAAP (FAO)

ISSCAAP			SEAFDEC		
Div.	Group	Code	Name	Code No.	Family / Scientific name
2.	24. Shad, milkfish, etc.fish,	CHG PEO	1. Shads	2401	Clupeidae - Anodontostoma chacunda Pellona ditchela
		MIL	2. Milkfish	2402	Chanidae - Chanos chanos
	25. Miscellaneous	GIP	1. Barramundi	2501	Centropomidae - Lates calcarifer
3.	31. Flounders, halibut, soles	LEF	1. Flounders	3101	Bothidae
		HPX	2. Indian halibuts	3102	Psettodidae
		TOX	3. Tongue soles	3103	Cynoglossidae
		SOX	4. Soles	3104	Soleidae
	33. Red fishes, bass, congers, etc.	CAX	1. Marine catfishes	3301	Ariidae
		CAE	2. Catfish eels	3302	Plotosidae - Plotosus spp.
		LSS	3. Lizard fishes	3303	Synodontidae - Saurida spp.
		PCX	4. Sharp-toothed pike eels and conger eels	3304	Muraenesocidae Muraenesox spp. (including Congridae, Muraenidae and Synbranchidae)
		GPX	5. Groupers	3305	Serranidae - Epinephelus spp.
		WHS	6. Sillago whittings	3306	Sillaginidae
		SNA	7. Red snappers	3307	Lutjanidae - Lutjanus spp. (L. argentimaculatus, L. sabae, L. malabaricus, L. sanguineus, L. altifrontalis)
		SNX	8. Other snappers	3308	Lutjanidae - Lutjanus spp, (L. johni, L. vitta, L. russelli, L. lineolautus, L. lutjanus, L. fulviflamma, L. monostigma) Pristipomoides spp.
		FUS	9. Fusiliers	3309	Lutjanidae - Caesio spp.
		THB	10. Threadfin breams	3310	Nemipteridae - Nemipterus spp. (including Scolopsis spp.)
		PON	11. Pony fishes	3311	Leiognathidae
		GRX	12. Grunters and sweetlips	3312	Pomadasyidae
		CDX	13. Drums and croakers	3313	Sciaenidae
		GOX	14. Goatfishes	3314	Mullidae - Upeneus spp. (including Parupeneus spp.)
		ELL	15. Emperor breams	3315	Lethrinidae - Lethrinus spp. (including Gymnocranius spp.)
		BIG	16. Big-eye snappers	3316	Priacanthidae - Priacanthus spp.
SBX	17. Breams	3317	Sparidae		
TIS	18. Horseheads	3318	Branchiostegidae		
SPI	19. Rabbitfishes	3319	Siganidae - Siganus spp.		
DPX	20. Other species	3320	Main groups to be indicated, if possible		

3.	34. Jacks, mullets, sauries, etc.	HAX NED	1. Halfbeaks and	3401	Exocoetidae - Hemirhamphus spp. Belonidae - Tylosurus spp.
		BAR	2. Barracudas	3402	Sphyraenidae - Sphyraena spp.
		MUL	3. Mulletts	3403	Mugilidae
		THF	4. Threadfins	3404	Polynemidae
		SDX	5. Round scads	3405	Carangidae - Decapterus spp.
		TRE GLT	6. Jacks, cavalla and trevallies	3406	Carangidae - Caranx spp. Gnathanodon speciosus (including Alectis spp. Caranx chrysophrys, C. malabaricus, C. ignobilis)
		BIS TRY	7. Selar scads	3407	Carangidae - Selar crumenophthalmus Selaroides leptolepis (including Alepes spp., Selar spp.)
		HAS	8. Hardtail scad	3408	Carangidae - Megalaspis cordyla
		QUE	9. Queenfishes	3409	Carangidae - Scomberoides (=Chorinemus) spp.
		POB	10. Black pomfret	3410	Formionidae - Formio niger
		SIP	11. White pomfrets	3411	Stromateidae - Pampus argenteus (including Pampus chinensis)
		PPX	12. Other species	3412	Main groups to be indicated, if possible
	35. Herrings, sardines, anchovies	SIX	1. Sardines	3501	Clupeidae - Sardinella spp.
		RAS	2. Round herrings	3502	Clupeidae - Dussumieria acute
		STO	3. Anchovies	3503	Engraulidae - Stolephorus spp.
		CLU	4. Clupeoids	3504	Clupeoidei
		DOB	5. Wolf herring	3505	Chirocentridae - Chirocentrus dorab
	36. Tunas	SKJ	1. Skipjack tuna	3601	Scombridae - Katsuwonus pelamis
		YFT	2. Yellowfin tuna	3602	Scombridae - Thunnus albacares
		BET	3. Big-eye tuna	3603	Scombridae - Thunnus obesus
		LOT	4. Longtail tuna	3604	Scombridae - Thunnus tonggol
		ALB	5. Albacore	3605	Scombridae - Thunnus alalunga
		KAW	6. Eastern little tuna	3606	Scombridae - Euthynnus affinis
		FRZ	7. Frigate and bullet tuna	3607	Scombridae - Auxis thazard Auxis rochei
		BIL XIP	8. Indo-Pacific swordfish, sailfishes and marlins	3608	Istiophoridae (Istiophorus spp.) (Makaira spp.) Xiphiidae (Xiphias spp.)
		COM	9. Narrow-barred king mackerel	3609	Scombridae - Scomberomorus commerson
		GUT STS	10. King mackerels	3610	Scombridae - Scomberomorus guttatus Scomberomorus lineolatus

3.	37. Mackerels	RAG	1. Indian mackerel	3701	Scombridae - <i>Rastrelliger kanagurta</i> (including <i>Rastrelliger faughni</i> )	
		RAB	2. Indo-Pacific mackerel	3702	Scombridae - <i>Rastrelliger brachysoma</i>	
		CUT	3. Hairtails	3703	Trichiuridae	
	38. Sharks & rays	SKH	1. Sharks	3801	Carcharhinidae, Sphyrnidae, Orectolobidae, etc.	
		BAI	2. Rays	3802	Trygonidae, Sphyrnidae, Myliobatidae, etc.	
	39. Miscellaneous	MZZ	1. Miscellaneous	3901	Mixed species	
		MZZ	2. Trash fish	3902	Mixed species	
	4.	42. Crabs	CRS	1. Swimming crabs	4201	Portunidae - <i>Portunus</i> spp.
			MUD	2. Mangrove crab	4202	Portunidae - <i>Scylla serrata</i>
43. Lobsters		SLV	1. Spiny lobsters	4301	Palinuridae - <i>Panulirus</i> spp.	
		SST	2. Slipper lobster	4302	Scyllaridae - <i>Thenus orientalis</i>	
45. Shrimps, prawns, etc.		GIT	1. Tiger prawn	4501	Penaenidae - <i>Penaeus monodon</i>	
		PEN MET	2. Penaeid prawns	4502	Penaenidae - <i>Penaeus</i> spp. <i>Metapenaeus</i> spp.	
			3. Other prawns	4503	Penaenidae - <i>Parapenaeopsis</i> spp. - Other family (genus) name will be added	
47. Miscellaneous marine crustaceans	CRU	1. Miscellaneous	4701	Mixed species		
5.	53. Oysters	OYX	1. Flat oysters	5301	Ostreidae - <i>Ostrea</i> spp.	
		OYC	2. Cupped oysters	5302	Ostreidae - <i>Crassostrea</i> spp.	
	54. Mussels	MSX	1. Sea mussels	5401	Mytilidae ( <i>Mytilus</i> spp., <i>Modiolus</i> spp., <i>Perna</i> spp., <i>Glauconome</i> spp.)	
	55. Scallops, pectens, etc.	SCX	1. Scallops	5501	Pectinidae	
	56. Cockles, clams	BLS BLC	1. Blood cockle	5601	Arcidae - <i>Anadara</i> spp. <i>Anadara granosa</i>	
		MAT	2. Clams and cone shell	5602	Mactridae - Other family name will be added	

5.	57. Cuttlefish, squid and octopus	CTL	1. Cuttlefishes	5701	Sepiidae, Sepiolidae
		SQC	2. Squids	5702	Loliginidae - Loligo spp.
		OCZ	3. Octopus	5703	Octopodidae - Octopus spp.
	58. Miscellaneous marine molluscs	MOL	1. Miscellaneous	5801	Other molluscs
7.	72. Turtles and other reptiles	TTX	1. Sea turtles	7201	Chelonia
	75. Sea urchins, sea cucumbers and other echinoderms	URX	1. Sea urchins	7501	Echinoidea
		CUX	2. Sea cucumbers	7502	Holothurioidea
76. Miscellaneous aquatic invertebrates	JEL	1. Jellyfishes	7601	Rhopilema spp.	
77. Miscellaneous aquatic animals	INV	1. Miscellaneous	7701	Invertebrata	
8.	81. Pearls, mother-of-pearls, shells etc.	OSH	1. Mother-of-pearl	8101	Pearl oyster shells
		MSH	2. Other shells	8102	Ex Mollusca
	82. Corals	CSS	1. Corals	8201	Faviidae
83. Sponges	SPO	1. Sponges	8301	Spongidae	
9.	91. Brown seaweeds	SWB	1. Brown seaweeds	9101	Phaeophyceae
	92. Red seaweeds	SWR	1. Red seaweeds	9201	Rhodophyceae
	93. Green seaweeds and other algae	SWG	1. Green seaweeds	9301	Chlorophyceae
	94. Miscellaneous aquatic plants	APL	1. Miscellaneous aquatic plants	9401	Algae

STATISTICAL TABLES

AND QUESTIONNAIRE



2. Catch and Fishing Effort by Type of Fishing Gear and by Size of Management

2.1 Otter Trawl [Malaysia and Thailand]

2.1.1 Less than 10 tons

Country and sub-area	Total	Malaysia			Thailand			
		Total	West coast P	East coast P	Sabah	Total	Gulf of Thai.	Indian Ocean
Unit of fishing effort								
No. of units		14,953						
No. of trips		435,725						
No. of days		443,812						
No. of hauls		1,695,699						
No. of hours		3,172,971						
Total catch		23,484						
Catch of major species and code No.								
Lizard fishes	3303							
Groupers	3305							
Red snappers	3307							
Threadfin breams	3310							
Pony fishes	3311							
Drums and croakers	3313							
Goatfishes	3314							
Big-eye snappers	3316							
Jack, cavalla, trevallies	3406							
Selar scads	3407							
Sardines	3501							
Indian mackerels	3701							
Indo-Pacific mackerel	3702							
Hairtails	3703							
Miscellaneous fishes	3901							
Trash fishes	3902							
Tiger prawn	4501							
Penaeid prawns	4502							
Other prawns	4503							
Cuttlefishes	5701							
Squids	5702							
Octopuses	5703							
OTHERS								
TOTAL								

1. Annual Catch and Fishing Effort by Type of Fishing Gear and by Size of Management

1.1 OTTER TRAWL

Name of Fishing gear:  
(refer 2.2 in the Notes)

Otter trawl

Particular name  
(please define)

None

Country

Malaysia

Sub-area

East Coast Peninsular M.

Unit of weight: Metric ton

Fishing effort	Size of boat	Total	Less than 10 tons	10-20 tons	20-50 tons	50-100 tons	More than 100 tons
No. of units							
No. of trips							
No. of days							
No. of hauls							
No. of trawling hours							
Total catch							
Catch of major species and code No.		Total	Less than 10 tons	10-20 tons	20-50 tons	50-100 tons	More than 100 tons
Shads	2401						
Milkfish	2402						
Barramundi	2501						
Flounders	3101						
Indian halibuts	3102						
Tongue soles	3103						
Soles	3104						
Marine catfishes	3301						
Catfish eels	3302						
Lizard fishes	3303						

The other major species groups will be listed in the following sheets.



1.2 PAIR TRAWL

Name of Fishing gear:  
(refer 2.2 in the Notes)

Pair trawl

Particular name  
(please define)

Country

Sub-area

Unit of weight: Metric tons

Fishing effort	Size of boat	Total	Less than 10 tons	10-20 tons	20-50 tons	50-100 tons	More than 100 tons
No. of units							
No. of trips							
No. of days							
No. of hauls							
No. of trawling hours							
Total catch							
Catch of major species and code No.	Total	Less than 10 tons	10-20 tons	20-50 tons	50-100 tons	More than 100 tons	
Shads 2401							
Milkfish 2402							
Barramundi 2501							
Flounders 3101							
Indian halibuts 3102							
Tongue soles 3103							
Soles 3104							
Marine catfishes 3301							
Catfish eels 3302							
Lizard fishes 3303							

The other major species groups will be listed in the following sheets.

1.3 ONE BOAT PURSE SEINE

Name of Fishing gear:  
(refer 2.2 in the Notes)

One boat purse seine

Particular name  
(please define)

Archovy Purse Seine

Country

Thailand

Sub-area

Gulf of Thailand

Unit of weight: Metric ton

Fishing effort	Size of boat	Total	Less than 10 tons	10-20 tons	20-50 tons	50-100 tons	More than 100 tons
No. of units							
No. of trips							
No. of days							
No. of hauls							
No. of hours							
Total catch							
Catch of major species and code No.	Total	Less than 10 tons	10-20 tons	20-50 tons	50-100 tons	More than 100 tons	
Shads	2401						
Milkfish	2402						
Barramundi	2501						
Flounders	3101						
Indian halibuts	3102						
Tongue soles	3103						
Soles	3104						
Marine catfishes	3301						
Catfish eels	3302						
Lizard fishes	3303						

The other major species groups will be listed in the following sheets.

1.4 DRIFT GILL NET

Name of Fishing gear:  
(refer 2.2 in the Notes)

Drift gill net

Particular name  
(please define)

Country

Sub-area

Unit of weight: Metric tons

Fishing effort	Size of boat	Total	Less than 10 tons	10-20 tons	20-50 tons	50-100 tons	More than 100 tons
No. of units							
No. of trips							
No. of days							
No. of hauls							
No. of hours							
Other kind of effort							
Total catch							
Catch of major species and code No.	Total	Less than 10 tons	10-20 tons	20-50 tons	50-100 tons	More than 100 tons	
Shads 2401							
Milkfish 2402							
Barramundi 2501							
Flounders 3101							
Indian halibuts 3102							
Tongue soles 3103							
Soles 3104							
Marine catfishes 3301							
Catfish eels 3302							
Lizard fishes 3303							

The other major species groups will be listed in the following sheets.

1.5 LONGLINE

Name of Fishing gear:  
(refer 2.2 in the Notes)

Longline

Particular name  
(please define)

Country

Sub-area

Unit of weight: Metric ton

Fishing effort	Size of boat	Total	Less than 10 tons	10-20 tons	20-50 tons	50-100 tons	More than 100 tons
No. of units							
No. of days							
No. of hooks							
Other kind of effort							
Total catch							
Catch of major species and code No.	Total	Less than 10 tons	10-20 tons	20-50 tons	50-100 tons	More than 100 tons	
Shads	2401						
Milkfish	2402						
Barramundi	2501						
Flounders	3101						
Indian halibuts	3102						
Tongue soles	3103						
Soles	3104						
Marine catfishes	3301						
Catfish eels	3302						
Lizard fishes	3303						

The other major species groups will be listed in the following sheets.

**II. Monthly Catch-effort Statistics 199\_**

**1. Catch and Fishing Effort by Type of Fishing Gear and by Month**

1.1 Malaysia

1.1.1 East coast of Peninsular Malaysia

1) Otter Trawl

Unit of fishing effort	Month	January	February	March	April	May	June
No. of units							
No. of trips							
No. of days							
No. of hauls							
No. of hours							
Total catch							
Catch of major species and code No.		January	February	March	April	May	June
Lizard fishes	3303						
Groupers	3305						
Red snappers	3307						
Threadfin breams	3310						
Pony fishes	3311						
Drums and croakers	3313						
Goatfishes	3314						
Big-eye snappers	3316						
Jack, cavalla, trevallies	3406						
Selar scads	3407						
Sardines	3501						
Indian mackerels	3701						
Indo-Pacific mackerel	3702						
Hairtails	3703						
Miscellaneous fishes	3901						
Trash fishes	3902						
Tiger prawn	4501						
Penaeid prawns	4502						
Other prawns	4503						
Cuttlefishes	5701						
Squids	5702						
Octopuses	5703						
OTHERS							
TOTAL							

[STATISTICAL TABLE]

(continued)		Unit of weight: Metric ton												
Unit of fishing effort		Month	July	August	September	October	November	December	July	August	September	October	November	December
No. of units														
No. of trips														
No. of days														
No. of hauls														
No. of hours														
Total catch														
Catch of major species and code No.														
Lizard fishes	3303													
Groupers	3305													
Red snappers	3307													
Threadfin breams	3310													
Pony fishes	3311													
Drums and croakers	3313													
Goatfishes	3314													
Big-eye snappers	3316													
Jack, cavalla, trevallies	3406													
Selar scads	3407													
Sardines	3501													
Indian mackerels	3701													
Indo-Pacific mackerel	3702													
Hairtails	3703													
Miscellaneous fishes	3901													
Trash fishes	3902													
Tiger prawn	4501													
Penaeid prawns	4502													
Other prawns	4503													
Cuttlefishes	5701													
Squids	5702													
Octopuses	5703													
OTHERS														
TOTAL														

2. Catch and Fishing Effort by Type of Fishing Gear, by Month and by Size of Management

2.1 Malaysia  
 2.1.1 East coast of Peninsular Malaysia  
 1) Otter Trawl  
 1) -1 Less than 10 tons

Size of boat; Less than 10 tons	January	February	March	April	May	June
No. of units						
No. of trips						
No. of days						
No. of hauls						
No. of hours						
Total catch						
Catch of major species and code No.	January	February	March	April	May	June
Lizard fishes						
Groupers						
Red snappers						
Threadfin breams						
Pony fishes						
Drums and croakers						
Goatfishes						
Big-eye snappers						
Jack, cavalla, trevallies						
Selar scads						
Sardines						
Indian mackerels						
Indo-Pacific mackerel						
Hairtails						
Miscellaneous fishes						
Trash fishes						
Tiger prawn						
Penaeid prawns						
Other prawns						
Cuttlefishes						
Squids						
Octopuses						
OTHERS						
TOTAL						

[STATISTICAL TABLE]

(continued)

Unit of weight: Metric ton

Size of boat; Less than 10 tons	Unit of weight: Metric ton					
	July	August	September	October	November	December
No. of units						
No. of trips						
No. of days						
No. of hauls						
No. of hours						
Total catch						
Catch of major species and code No.	July	August	September	October	November	December
Lizard fishes						
Groupers						
Red snappers						
Threadfin breams						
Pony fishes						
Drums and croakers						
Goatfishes						
Big-eye snappers						
Jack, cavalla, trevallies						
Selar scads						
Sardines						
Indian mackerels						
Indo-pacific mackerel						
Hairtails						
Miscellaneous fishes						
Trash fishes						
Tiger prawn						
Penaeid prawns						
Other prawns						
Cuttlefishes						
Squids						
Octopuses						
OTHERS						
TOTAL						



2. Monthly Catch and Fishing Effort by Type of Fishing Gear and by Size of Management (January to June) 199\_

2.1 OTTER TRAWL

Name of Fishing gear: Otter trawl

Particular name (please define)

Size of boat \_\_\_\_\_ ton (GRT class)

Country \_\_\_\_\_

Sub-area \_\_\_\_\_

Unit of weight: Metric ton

Fishing effort	Month	January	February	March	April	May	June
No. of units							
No. of trips							
No. of days							
No. of hauls							
No. of trawling hours							
Total catch							
Catch of major species and code No.	January	February	March	April	May	June	
Shads	2401						
Milkfish	2402						
Barramundi	2501						
Flounders	3101						
Indian halibuts	3102						
Tongue soles	3103						
Soles	3104						
Marine catfishes	3301						
Catfish eels	3302						
Lizard fishes	3303						

The other major species groups will be listed in the following sheets.

III. Specific Data on Catch-effort 199\_

1. Taiwan

1-1 Longline

Year [1987]

Units: catch, No. of fish; effort, hooks in hundred.

Species (Code No.)	Area		5 S		100 E		5 S		105 E	
	Code No.	Area	Catch	Effort	Catch	Effort	Catch	Effort	Catch	Effort
Total			1,761	1,409	35	106				
Skipjack tuna	(3601)		-	...	-	...				
Yellowfin tuna	(3602)		624	...	2	...				
Bigeye tuna	(3603)		919	...	7	...				
Albacore	(3605)		51	...	3	...				
Sword. sailfish, marlin	(3608)		134	...	10	...				
Sharks	(3801)		33	...	13	...				
Others			-	...	-	...				

**2. Indonesia**

**2.1 Gill Net**

Year [1987] Sub-area [Pelabuhan Ratu] Units: catch, No of fish; effort, day.

Species (Code No.)	Month	January	February	March	April	May	June	July	August	September	October	November	December
Effort		78	68	188	85	123	219	241	475	635	340	200	175
Total catch		7,300	7,200	22,900	5,500	11,500	31,200	47,600	178,100	249,900	82,500	20,500	25,700
Skipjack tuna (3601)		5,300	5,900	16,200	4,600	7,500	22,500	35,500	152,700	183,400	64,800	18,200	20,400
Yellowfin tuna (3602)		1,200	900	2,100	700	1,300	4,900	3,700	10,300	25,900	10,400	400	700
Eastern little tuna (3606)		800	400	4,600	200	2,700	3,800	8,400	15,100	40,600	7,300	1,900	4,600
Frigate and bullet tuna (3607)		-	-	-	-	-	-	-	-	-	-	-	-

2.2 Pole-and-line

Year [1987] Month [March] Units: catch, kg; effort, day.

Species (Code No.)	Boat type				Sub-area			
	30	40	45	5	Ambon	Bitung	Bitung	Banda Aceh
Effort	322	180	31	283				
Total catch	210,300	166,800	27,800	221,400	61,461			
Skipjack tuna (3601)	210,300	130,600	27,800	221,400	24,944			
Yellowfin tuna (3602)	-	36,200	-	-	-			
Eastern little tuna (3606)	-	-	-	25,997				
Frigate and bullet tuna (3607)	-	-	-	10,470				

3. Philippines

3.1 Handline

Units: catch, No of fish; effort, day.

Year [1987] Month [March]

Species (Code No.)	Sub-area					Units: catch, No of fish; effort, day.				
	A	B	C	D						
Effort	25	50	33	25						
Total catch	650	1,100	990	625						
Yellowfin tuna	(3602)	650	1,100	990	625					

3. Specific Data on Catch-effort

<b>Country</b>	<b>Catch</b>
<b>Sub-area</b>	<b>Species</b>
Fishing area: Latitude	Unit of weight is [Ton, Kg or No. of fish] please define.
Longitude	Code No. Catch
<b>Fishing gear</b>	
<b>Size of boat</b>	
ton (GRT)	
<b>Effort</b>	
Unit	
Trip	
Day	
Haul	
Hour	
Hook	
Others	
<b>Month, Period</b>	
<b>Remarks</b>	



