HMAP Dataset 21
Gulf of Thailand Fisheries

Supporting Documentation

Summary

Dataset Title:	Gulf of Thailand cephalopod Fisheries
Large Marine Ecosystem:	35: Gulf of Thailand
Subject:	Catch data, squid, cuttlefish, octopus, 1971-2005, Gulf of Thailand
Data Provider:	Sansanee Wangvoralak, Cristina Pita & Graham Pierce School of Biological Sciences/ Business School University of Aberdeen Scotland, UK
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Extent:	93 records
Keywords:	Historical statistics; HMAP; Thai fisheries; Gulf of Thailand

Citation:

(a) The dataset: please cite as follows: S. Wangvoralak, C. Pita & G. Pierce, 'Gulf of Thailand cephalopod Fisheries', in J.H. Nicholls (comp.) HMAP *Data Pages* (www.hull.ac.uk/hmap)

(b) Supporting documentation: please cite as follows: S. Wangvoralak, C. Pita & G. Pierce, 'Gulf of Thailand cephalopod Fisheries, Supporting Documentation', J.H. Nicholls (comp.) *HMAP Data Pages* (www.hull.ac.uk/hmap)

2. Research Context & Objectives

After trawling was introduced into Thailand in 1960, marine fishery industries in Thailand have developed rapidly and Thailand is recognized as one of the top ten fishing nations in the world since 1972. The Gulf of Thailand, covering approximately 350,000 km^2, is responsible for the landings of more than 70% of the total marine catches, and cephalopods are one of the most important resources. In 2005, the total cephalopod landings accounted for 7% of total marine catches in the Gulf of Thailand, representing 17% of the total marine fishery value. Cephalopod productions consist of three main groups; squid (mainly Loliginidae), cuttlefish (mainly Sepiidae) and octopus (mainly Octopodidae).

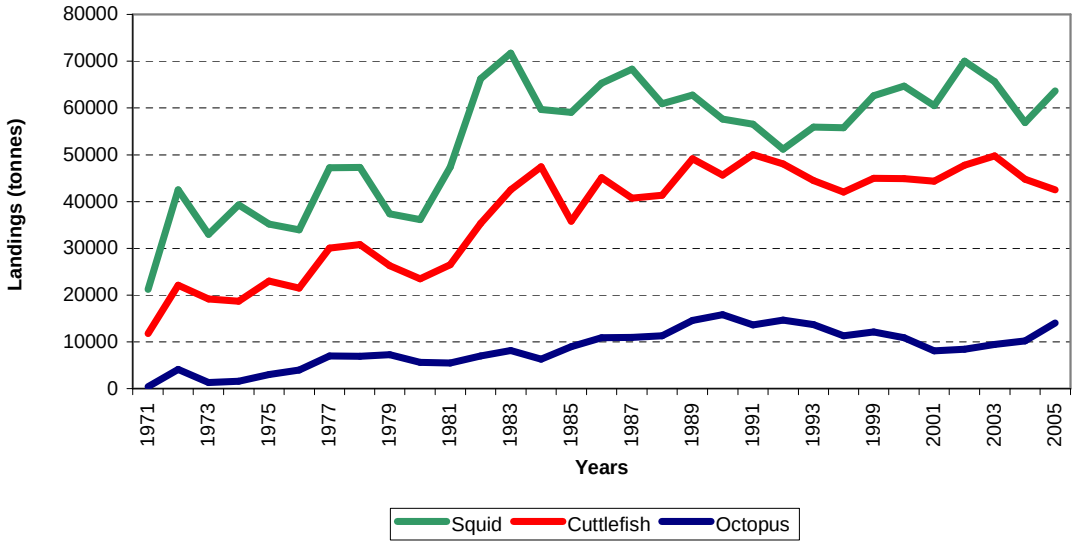
Before 1977, the main fishing gears for the squid fishery in the Gulf of Thailand were otter board and pair trawlers as bycatch. After this year, and due to the discovery of squid light luring, the squid fishery increased. This gear is more efficient than trawls due to its ability to catch squid in every type of sea bottom.

The expansion of demand for cephalopods, both from domestic and international markets and advance in fishing technology, resulted in the exploitation of cephalopods over the potential yield since 1977.

The historic data on catch is very important for monitoring and assessing the trend of the exploitation of the cephalopod resources. Therefore, this database contains catch data, and its respective value, for squid, cuttlefish and octopus for the Gulf of Thailand.

3. Primary Source Materials

The information on cephalopod production in Dataset 61 was collected from three main sources; The report on Fisheries Record of Thailand 1987-1991 and Fisheries Statistics of Thailand 1992-2006 published by the Department of Fisheries (DOF), Ministry of Agriculture and Cooperatives, Thailand. The report on Cephalopods resource in the Gulf of Thailand by Mala Supongpan (1995)



4. Metadata: Explanation of Data Fields

The entries below are outlined as per the field headings of HMAP Dataset 61. An explanation is offered for each field in general terms, and also in dataset specific terms.

ID
ID is the unique, consecutive serial numbers for the complete HMAP database.

InstitutionCode
InstitutionCode is the name given to the overall project of which this Dataset forms a part (HMAP).

CollectionCode
CollectionCode is the specific HMAP reference code (used for OBIS referencing purposes).

DateLastModified
This is the date when the data were last modified.

CASE_STUDY
CASE_STUDY is the location identifying description of the Dataset. In this instance: **Thailand, Gulf of Thailand.**

DATASET
DATASET is the HMAP project unique Dataset reference.

PERIOD
The Historical Period covered.

ID_NUMBERS
This field contains the range of record numbers shown in the ID field.

REFERENCE
REFERENCE refers to the source of records employed in the research.

GENERAL DESCRIPTION
This is a brief description of the Dataset.

publication_date
This is the date when the Dataset was published.

Citation
Citation is the field where the formal attribution is shown for users of the HMAP Datasets to cite; it credits the researchers and editors of a Dataset together with its database compilers. This citation must be quoted whenever records are referenced or employed for any purpose.

Please quote the relevant citation when using extracts or details from this Dataset:

- Wangvoralak, S, Pita**,** C & Pierce, J, 'Gulf of Thailand cephalopod fisheries, in Nicholls, J (comp.) *HMAP Data Pages* (www.hull.ac.uk/hmap)

BasisOfRecord
BasisOfRecord is the abbreviation applied that indicates whether the record is based on observations (O), living organisms (L), specimens (S), germplasm/seeds (G), photos (P), or from literature with original basis unknown (D); the HMAP value is generally 'O'.

OCEAN_REGION
This field indicates the specific Ocean Region where the Dataset research has been carried out. If this field shows 'None', then the research reflects activities carried out in non-seaward locations (e.g. in rivers, weir fishing, etc.). In this Dataset, the ***Gulf of Thailand*** region was researched.

LME
This field indicates the name of the Ecosystem where the record event occurred. To find out more about LMEs (which are confined to continental shelf regions) browse the Large Marine Ecosystem site (http://www.edc.uri.edu/lme/) where LME GIS data may be downloaded. In this Dataset, the ***Gulf of Thailand*** LME was researched.

LME_NUMBER
This field indicates the number of the LME that is shown in the previous field. In this Dataset, the LME number is 35.

REGION
This field indicates the specific region of the Dataset.

GROUND
The GROUND is the fishing ground(s) of dataset.

LATITUDE
The LATITUDE refers to a mean value of the species distribution from surveys and should be cross referenced with the LONGITUDE field for specific location determination.

LAT_PRECISION
This gives the actual precision of the calculated LATITUDE field. The available options are:

- Approx — Approximate position
- Estimated — Estimated position
- Exact — Exact position
- Ground Centre — Notional centre of the relevant fishing ground
- Unknown — Position not known

LONGITUDE
The LONGITUDE refers to a mean value of the species distribution from surveys and should be cross referenced with the LATITUDE field for specific location determination.

LON_PRECISION
This gives the actual precision of the calculated LONGITUDE field. The available options are:

- Approx — Approximate position
- Estimated — Estimated position
- Exact — Exact position
- Ground Centre — Notional centre of the relevant fishing ground
- Unknown — Position not known

ST_YEAR
This field refers to the ***start year*** of the beginning of the sampling.

EN_YEAR
This field refers to the ***end year*** of the end of the sampling. Unless the sampling spanned an extensive period, this value is usually the same as the ST_YEAR field entry.

ScientificName
This field indicates the scientific name of the species under investigation which is linked to the HMAP database containing detailed information about the species that were sampled.

…SPECIES FIELDS…
The following fields are included to add detail to the Species data:

- Subspecies
- GENUS
- SPECIES
- FAMILY
- ORDER
- CLASS
- PHYLUM
- KINGDOM
- AUTHOR

HOME_PORT
This is the home port where species were landed. All the 17 fishing districts of the Gulf of Thailand

NATION
The Nationality of the fishing operation is indicated here.

OPERATOR
The name of the operator is indicated.

EFFORT
This field shows the EFORT taken by the fishery and is measured according to the number of trips undertaken. The EFFORT is the calculated effort based on the specific EFFORT_UNIT employed.

EFFORT_UNIT
This is the Unit of Effort employed.

EFFORT_number_of_gear
Where known this field shows the EFFORT_number_of_gear i.e. showing the number of gear, nets, manpower etc. used as the unit of effort.

POWER
Where known, the type of effort employed is indicated.

METHOD
The METHOD is an indicator of the primary gear used in the fishery; it indicates the means by which samples were extracted. This is typically the actual method of fishing, such as "Bottom Trawl".

CATCH_MT
This field shows the retained catch weight in metric tonnes.

ObservedWeight
This field indicates the observed mass of the sample in Kilograms. Where this data is not available, a value of "unknown" is entered.

CONVERSION_FROM
This field describes the ***Formula*** used in conversion from original units to Metric tonnes, litres, and/or kilograms.

UNIT_ORIGIN
This field indicates the Conversion Units used.

FORMULA
This field contains the actual Conversion formula that is used to calculate the Catch in Metric Tonnes (CATCH_MT).

CATCH_N
This is where the number of specimens sampled for a particular record is indicated. Where this data is not available, a value of "unknown" is entered.

GENDER
This field indicates the Gender of the species in the sample. The values available are shown as follows:

- 'M' male
- 'F' female
- 'U' unknown
- 'B' both male and female
- 'H' hermaphrodite

PRICE
The sale price of the catch is indicated.

UNIT_PRICE
The sale price unit of the catch is indicated - British Pounds (£).

PRICE_UNIT_CATCH_N
This field shows the calculated Price-to-Catch number. The calculation formula: PRICE / CATCH_MT is used.

PROCESS
This is a description of the process applied to the original unit.

CPUE
The CPUE field (*C*atch *P*er *U*nit *E*ffort) is expressed as: YIELD_KILOGRAM / EFFORT (number of fishing units employed).

NOTES
The NOTES field gives detailed information specific to a particular record. The details are provided to clarify specific entries and where further explanation is required than is generally provided in this METADATA file. For complete and academically verifiable explanations, refer to the published research materials that are indicated in the REFERENCE field.

Enquiries regarding the information contained in this document and the accompanying dataset should be directed to David J Starkey (d.j.starkey@hull.ac.uk) or John H Nicholls (j.nicholls@hull.ac.uk).