

A STUDY ON THE QUANTITY AND
COMPOSITION OF TRAWL BYCATCH IN THE
COASTAL WATERS OF TERENGGANU AND
KEDAH, MALAYSIA

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COMPOSITION OF TRAWL BYCATCH IN THE
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KEDAH, MALAYSIA

By

CHOO CHEE KUANG

This project is submitted in partial fulfillment of
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LIST OF ABBREVIATION

kg	kilograms
knot	nautical miles per hour
GRT	gross tonnage
hr	hour
m	meter
mm	milimeter
mt	metric tonne
n.m	nautical miles
SD	standard deviation
#	numbers of individuals
%	percentage
Crust.	Crustaceans
Ceph.	Cephalopods
Echi.	Echinoderms
Misc.	Miscellaneous marine invertebrates

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ABSTRACT

A study on the commercial trawl bycatch was conducted in the coastal waters of Terengganu and Kedah. A total of 15 tows were sampled from July 1999 through January 2000 in Terengganu waters. Whereas in Kedah, 9 tows were performed between September 1999 through January 2000. The Catch Per Unit Area (CPUA) in bycatch averaged $8444 \text{ kg}\cdot\text{m}^{-2}$ and $5024 \text{ kg}\cdot\text{m}^{-2}$ in the waters of Terengganu and Kedah respectively.

In Terengganu waters, 54 fish and 44 invertebrate species representing 39 and 28 families respectively, were identified from the bycatch which constituted 58 % of the total catch. *Alutera monoceros*, *Leiognathus elongatus*, *Lagocephalus sp.*, *Saurida undosquamis* and *Pentaprion longimanus* appeared to be the dominant species by weight as well as number of individuals.

In Kedah waters, 43 fish species representing 32 families and 21 invertebrate species belonging to 12 families were recorded in the bycatch which accounted for 61% of the overall landings. The dominant species by number and weight were *Pennahia sp.*, *Johnius sp.*, and *Leiognathus dussumieri*.

The major component of bycatch in both areas were quite similar, with trash fish topping the composition, followed by crustacean, cephalopod, shells and bivalve and miscellaneous animals. Estimated CPUA for each species as well as temporal distribution are detailed and discussed in this study.

ABSTRAK

Suatu kajian ke atas penangkapan ikan baja dari pukat tunda telah dilakukan di perairan Terengganu dan Kedah. Daripadanya, 15 pukat telah dilancarkan bermula dari Julai 1999 hingga Januari 2000 di perairan Terengganu. Di Kedah, 9 pukat dilancarkan dari September 1999 hingga Januari 2000. Purata Catch Per Unit Area (CPUA) untuk tangkapan sampingan bernilai 8444 kgn.m^{-2} dan 5024 kgn.m^{-2} telah dicatatkan di perairan Terengganu dan Kedah masing-masing.

Di perairan Terengganu, 54 spesis ikan dan 44 invertebrat dari 39 and 28 famili masing-masing dalam tangkapan sampingan telah dikenalpastikan dan ini menyumbang 58% dari jumlah tangkapan keseluruhan. *Alutera monoceros*, *Leiognathus elongatus*, *Lagocephalus sp.*, *Saurida undosquamis* dan *Pentaprion longimanus* merupakan spesis dominan dari segi jumlah individu dan berat.

Di perairan Kedah, 43 spesies ikan dari 32 famili dan 21 spesies invertebrat dari 12 famili telah dicatatkan dalam tangkapan sampingan, di mana ia menyumbang 60% dari jumlah tangkapan keseluruhan. Spesies yang dominan dari segi jumlah individu dan berat adalah *Pennahia sp.*, *Johnius sp.*, and *Leiognathus dussumieri*.

Komponent utama ikan baja adalah lebih kurang sama di kedua-dua lokasi kajian. Ikan baja merupakan tangkapan utama, diikuti dengan krustasea, sefalopoda, cangkerang dan haiwan lain. CPUA bagi setiap spesies dan distribusi jangkamasa dianggarkan dan dipertikaikan dalam kajian ini.