STOMACH CONTENT OF THE LARGE PELAGIC FISHES IN THE BAY OF BENGAL

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ABSTRACT

Investigation of stomach contents of apex predator; frigate tuna (*Auxis thazard*), skipjack tuna (*Kasuwonus pelamis*), yellowfin tuna (*Thunnus albacares*), bigeye (*T. obesus*) and swordfish (*Xiphias gladius*) were studied in the Bay of Bengal during November to December 2007. The tunas were caught from drift gillnet and pelagic longliner of the operations cruise from MV.SEAFDEC.

Thirty five percent of 68 stomach samples found diet, the forage and parasite of tuna and tuna-like species were reported cephalopod (60.70% in weight and 44.83% in number), fish (38.85% in weight and 5.75% in number), and parasite (0.45% in weight and 49.42% in number). Fish prey composed of 3 families; Ostraciidae, Bramidae and Diretmidae, and 1 unidentified fish. Cephalopod was 1 order and 1 species, namely Teuthoidea and *Histioteuthis celetaria pacifica*, Octopoda. Parasite was reported Nematode (black and white) and Digenea. Diet data were comparison between surface and deep swimmers made, the result showed higher the number of prey and parasite from deep swimmers (4.79 prey and 5.07 parasite per stomach) than surface swimmers (1.62 prey and 1.15 parasite per stomach).

Community of tunas, prey and parasite was categorized into 3 assemblages upon species of predator, parasite and prey composition, and habitat (depth of water) of those species. It found significant differences between groups. Groups B and C has the highest total number of taxon and the highest average number of parasite found in group B, followed by groups C and A.

The preliminary of tunas trophic ecology in the Bay of Bengal was explanation from the result of the present study. Future develops on commercial deep-water fisheries and study on the taxonomy and field guide of deep-sea fishes and cephalopod beak have suggestion study in the Bay of Bengal.

INTRODUCTION

The predator-preys interactions play an important part in the structure and the dynamics of multispecies communities. Facing the dramatic increase of the catches of tuna and related species in the Indian Ocean, especially the eastern Indian Ocean. It becomes necessary to assess the impact of the fisheries on the pelagic ecosystems. The implement of research activities lading to a better knowledge of trophic ecology of apex predators will be provide such an ecosystem point of view that has to be considered nowadays in the high seas fisheries management.