

Documents

Hamzah, M.S.D.^a, Zepri, A.M.^a, Razak, R.A.^{a b}, Mohamed, J.^{a b}, Ramli, M.Z.^{a b}, Pa' Suya, M.F.^c, Rahman, R.A.^d, Faudzi, F.^{a b}, Adam, A.^{a b}

Diet Composition of Indo-Pacific Sailfish (*Istiophorus platypterus*) By-Catch in the East Coast of Peninsular Malaysia

(2023) *Journal of Fisheries and Environment*, 47 (3), pp. 40-49.

^a Department of Marine Science, Kulliyah of Science, International Islamic University Malaysia, Pahang, Malaysia

^b Institute of Oceanography and Maritime Studies (INOCEM), International Islamic University Malaysia, Pahang, Malaysia

^c Pusat Pengajian Sains Ukur dan Geomatik, Universiti Teknologi Mara (Perlis), Kampus Arau, Perlis, Malaysia

^d Department of Construction Management, Universiti Malaysia Pahang, Pahang, Malaysia

Abstract

The distribution of sailfish across Malaysian waters provides socioeconomic importance to the coastal community. However, there is a declining rate of catch in sport fishing event held in Pahang, Malaysia over the past four years from 2016 to 2019. The urgency to study local sailfish populations is also driven by the recent conservation status change of Indo-Pacific sailfish by the International Union for Conservation of Nature (IUCN) in 2022. Diet composition was determined throughout this study to perceive the feeding behavior of sailfish. The by-catch samples were collected at Kuantan, Pahang from March 2021 to December 2022. Only one species of sailfish, *Istiophorus platypterus* was observed during the period of sampling. The stomach contents of 170 samples were analyzed, and 566 prey items were identified to the lowest possible taxa. The index of relative importance percentage (%IRI) was calculated for the prey comparison. The top three dominant prey recorded from genus taxa were *Amblygaster* sp. (28.25%), *Uroteuthis* sp. (20.03%) and *Encrasicholina* sp. (18.22%). The least prey recorded was *Scolopsis* sp. (0.02%). Cluster analysis based on diversity and prey abundance between 2021 and 2022 was determined. The sailfish diet composed of high diversity of tropical pelagic fish which can be found in the Malaysian waters. This indicates sailfish as generalist predators in Pahang coastal waters that serve as nursing grounds for juveniles and early adults of the species. © 2023, Faculty of Fisheries, Kasetsart University. All rights reserved.

Author Keywords

Billfish; By-catch; Conservation; Diet composition; *Istiophorus platypterus*

Funding details

The authors would like to express gratitude for this funded research study under SRCG20-032 and SRCG20-052 (IIUM-UMP-UiTM Collaborative Research Grant). This study was in part supported by Institute of Oceanography and Maritime Studies (INOCEM) in Cherok Paloh, Pahang.

Correspondence Address

Adam A.; Department of Marine Science, Malaysia; email: aimiadam@iium.edu.my

Publisher: Faculty of Fisheries, Kasetsart University

ISSN: 26300702

Language of Original Document: English

Abbreviated Source Title: J. Fish. Environ.

2-s2.0-85179738578

Document Type: Article

Publication Stage: Final

Source: Scopus