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Ezraneti, R.[a b] , Hassan, N.A.[c] , Miskon, M.F.[a d] , Mohamed, J.[a d]

Microplastic contamination in commercial marine fish: A case study in Johor, Malaysia
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[a] Department of Marine Science, Kulliyyah of Science, International Islamic University Malaysia, Kuantan, Malaysia
[b] Department of Marine Science, Faculty of Agriculture, Malikussaleh University, Aceh Utara, Indonesia
[c] Department of Community Medicine, Kulliyyah of Medicine, International Islamic University Malaysia, Kuantan, Malaysia
[d] Institute of Oceanography and Maritime Studies (INOCEM), Kulliyyah of Science, International Islamic University Malaysia, Kuantan, Malaysia

Abstract
Microplastic contamination in marine ecosystems endangered marine organisms such as fish and poses a risk to humans. This research aims to investigate the presence of microplastic contamination in commercial marine fish caught around Johor, Malaysia. This study uses samples from four species of commercial marine fish consists of Indian mackerel, Yellowtail scad, Forktail threadfin bream and Black pomfret. Furthermore, microplastics were extracted, characterized, and identified from fish flesh. The results show that the fish species with the highest number of microplastics were yellowtail scad (23.33%) and Indian mackerel (30%) from all fish analyzed, which had an average of 0.022 and 0.021 particles/g, respectively. The pelagic fish has a higher microplastic number than the demersal fish (p-value = 0.037). Black fragments with < 200 μm in size are the majority of microplastics discovered. Fish flesh predominantly contains microplastics like polyamide (PA) and Ethylene propylene diene monomer (EPDM). Further study and regular monitoring on microplastic contamination in commercial marine fish need to be done to mitigate the impact of microplastics on human health and marine ecosystems, particularly in Johor, peninsular Malaysia. © The Authors.

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Correspondence Address
Ezraneti R.; Department of Marine Science, Malaysia; email: ririezraneti@unimal.ac.id

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