# [***Research Findings from Ministry of Natural Resources Update Understanding of Marine Science (Tidal variation shaped microplastic enrichment patterns in mangrove blue carbon ecosystem of northern Beibu Gulf, China)***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:664S-HYF1-DY7R-R1JP-00000-00&context=1516831)

NewsRx Science Daily

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**Body**

2022 AUG 12 (NewsRx) -- By a News Reporter-Staff News Editor at NewsRx Science Daily -- Investigators discuss new findings in marine science. According to news originating from Beihai, People's Republic of China, by NewsRx correspondents, research stated, "***Mangroves*** are considered to be a sink for microplastics (MPs) due to their unique characteristics."

Our news journalists obtained a quote from the research from Ministry of Natural Resources: "Previous studies mainly focused on the spatial distribution of MPs, but few researchers have addressed the influence of tidal variation on this distribution, especially since the MP total number in ***mangroves*** was unknown. In this study, surface sediment samples were collected in ***mangroves*** from the Beibu Gulf, South China Sea, and the abundance, composition, and number of MPs were investigated. The results showed that MPs were widely present in all ***mangrove*** sediment samples, with abundances ranging from 26.67 ± 9.43 to 239.94 ± 37.80 items/kg. The distribution of MPs was heterogeneous among different sampling sites, with the highest levels in the Shankou (SK) area. The MP abundance in the same ***mangrove*** forest gradually increased from the low tidal zone to the high tidal zone, with the enrichment factor ranging from 1.50 to 4.00. The MP abundance was significantly correlated with particulate organic carbon (POC) (n = 12, R = 0.664, p < 0.05)."

According to the news reporters, the research concluded: "Results showed that ***mangroves*** had an interception effect on MPs and factors affecting MP distribution in ***mangrove*** sediments included not only tides but also human activities, such as aquaculture, agriculture, and residential life. Finally, this paper estimated the MP total number in ***mangroves*** at different sampling areas and tidal zones, and the middle tidal zone was considered to be more accurate for MP pollution assessment in ***mangroves***."

For more information on this research see: Tidal variation shaped microplastic enrichment patterns in ***mangrove*** ***blue carbon*** ecosystem of northern Beibu Gulf, China. Frontiers in Marine Science, 2022,9. (Frontiers in Marine Science - http://www.frontiersin.org/Marine\_Science). The publisher for Frontiers in Marine Science is Frontiers Media S.A.

A free version of this journal article is available at https://doi.org/10.3389/fmars.2022.927884.

Our news editors report that additional information may be obtained by contacting Li Zhang, Guangxi Key Laboratory of Beibu Gulf Marine Resources, Environment and Sustainable Development, Fourth Institute of Oceanography, Ministry of Natural Resources, Beihai, People's Republic of China. Additional authors for this research include Shujia Wang, Qiying Jian, Peng Zhang, Yejin Lu, Haoqi Liu. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2022, NewsRx LLC

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