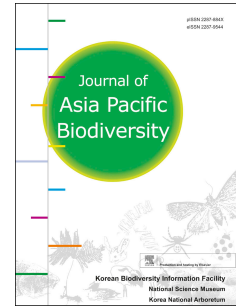


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Effect of pollution on diversity of marine gastropods and its role in trophic structure at Nasese shore, Suva, Fiji Islands

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Abstract: Marine pollution is a concerned topic and ocean supplies a significant amount of food to human population. However, due to never ending pollution, marine ecosystem is in a threatening situation. Fiji Islands is in south Pacific sea and experiencing such a threat. Therefore, this paper targets to identify the effects of pollution on the diversity of marine gastropods in Nasese shore, Suva, Fiji Islands. A detailed opportunistic survey was carried out in this research. 85 species of marine gastropods molluscas were recorded which belong to 29 families in four different habitats named sandy, rocky and muddy (SRM–Habitat 1), mangrove and sandy (MNS–Habitat 2), muddy and sandy (MS–Habitat 3) and rocky and coral Substrate (RC- Habitat 4) at Nasese Shore during the period of April 2014 to September 2014. It was observed that compared to RC-Habitat, all three other habitats, SRM, MNS and MS were polluted by frequently adding sewages and some of the domestic effluents via artificial and natural creeks to the coastal area. Therefore, diversity and abundance of the gastropods were significantly lower in those three habitats than RC-Habitat. In addition, it was observed that a higher human consumption rate for some of the gastropods.

Keywords: Fiji Islands; gastropods; molluscas; plastic; pollution

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