

Composition and sources of Sterols in Pulau Tinggi, Johor, Malaysia.

ABSTRACT

This study explores the role of sterols as lipid biomarkers to indicate their input which originates from various sources in the marine environment. Sterols and their ratios were investigated in sediments taken from sixteen sampling stations at Pulau Tinggi, Johor in order to assess the sources of organic matter. The compounds extracted from the sediments were quantified using a gas chromatography-mass spectrometry (GC-MS). The distributions of sterols indicated that organic matter at all sampling stations originated from a mixture of marine source and terrestrial origins at different proportions. A total of eleven sterols were quantified, with the major compounds being phytosterols (44% of total sterols), cholesterol (11%), brassicasterol (11%) and fecal sterols (12%).

Keyword: Cholesterol; Fecal sterol; Lipid biomarker; Phytosterol.