

Occurrence of Conjugated Polyenoic Fatty Acids in Seaweeds from the Indian Ocean

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Three species of red marine macro algae (Rhodophyta) from the Indian Ocean were analysed for the occurrence of conjugated polyenes. The composition of different lipid classes in these seaweeds along with their fatty acid composition has also been reported. Analysis of lipid classes of these seaweeds revealed that both *Acanthophora spicifera* (Ceramiales, Rhodophyta) and two species of *Gracilaria*, viz. *G. edulis* and *G. folifera* (Gracilariales, Rhodophyta) were rich in glycolipids followed by neutral- and phospholipids. The fatty acid composition of these seaweeds revealed C16:0 as the predominant fatty acid in all three species. However, *A. spicifera* had significantly higher amounts of eicosapentaenoic acid (EPA) and arachidonic acid (AA) as compared to negligible amount of these fatty acids in both species of *Gracilaria*. The red seaweed *Acanthophora spicifera* contained conjugated eicosapentaenoic acid (CEPA) and conjugated arachidonic acid (CAA) in all lipid classes except glycolipids.

Key words: Fatty Acid Composition, Conjugated Fatty Acids, Seaweeds