

Total fatty acid composition of some marine macroalgae for use as supplementary food in mariculture

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The necessity of dietary *n*-3 HUFA has been confirmed for several species of marine and freshwater fishes. These requirements could be partially reduced with a supplemental supply of fatty acids coming from macroalgae depending on the ability of fish to chain-elongate and desaturate these fatty acids. Certain macroalgae have the capacity to biosynthesize large amounts of certain *n*-6 and *n*-3 HUFAs. We have analyzed 9 species belonging to different genera of the three major groups of algae Chlorophyta, Phaeophyta and Rhodophyta present in the Canary Islands (Spain). All algae analyzed have large amounts of palmitic acid. Phaeophyta had high amounts of oleic acid and Rhodophyta has eicosapentaenoic acid as their major unsaturated fatty acid. Both groups have a high content of arachidonic acid. On the other hand, Chlorophyta had only small amounts of the major C₂₀ fatty acids, having linolenic and octadecatetraenoic acids as major components.

Feeding behavior of young robalo (*Centropomus undecimalis* Bloch, 1792). I. The effect of chemical attractants

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This study was designed to analyze the feeding behavior and feeding preference of young robalo to the influence of certain chemical substances or attractants. The following chemicals were tested: *L*-alanine, *L*-leucine, *L*-isoleucine, *L*-glutamic acid, glycine, *L*-proline, *L*-histidine, *L*-serine, *L*-lysine, *L*-arginine, inosine-5-triphosphate and uridine, all at a concentration of 0.01 M. Feeding response was studied in aquaria containing one or two fish. The response was measured according to the method of Stradmeyer (1989). The substances were placed in pellets made of agar. Aquaria volume was 120