



EFFECTS OF SMOKING ON THE NUTRITIONAL COMPOSITION OF FLESH AND OIL CHEMISTRY OF ATLANTIC MACKEREL (*SCOMBER SCOMBRUS*) OIL

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ABSTRACT

Fish constitute a major part of human diet. It a good source of proteins, lipids and minerals. Fishes are processed before they are consumed, to offer palatability and preservation. The study investigated the effects of processing on the nutritional properties, *in vitro* antioxidant capacity and fatty acid profile of oil. Processing methods used were sun drying and smoking methods. On milled fish samples, nutritional analysis such as minerals and proximate analysis were performed using standard protocols. After processing, oil from *Scomber scombrus* as extracted using soxhlet extractor and n-hexane as solvent. *In vitro* antioxidant assay, fatty acid profile and physiochemical parameters of the oil performed. Result showed protein, fat, sodium and fibre were significantly ($P < 0.05$) higher in sundried sample compared to smoked. Saponification value, peroxide value and iodine value were significantly ($P < 0.05$) higher in oil obtained from smoked fish when compared to sundried. Fatty acid profile showed the presence of four fatty acids. From the result of this study, it can be concluded that smoking affected the nutritional properties of the fishes, especially the oil chemistry.