Journal

J. Biol. Chem. Environ. Sci., 2017, Vol. 12(3): 527-550
http://biochenv.blogspot.com.eg/

QUALITY CHARACTERISTICS OF FROZEN FISH FINGERS PREPARED FROM LITTLE TUNA FISH (*EUTHYNNUS ALLETTERATUS*)

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ABSTRACT

This study aimed to evaluate the quality characteristics of fish finger processed from little tuna fish (*Euthynnus alletteratus*) during frozen storage at -18ºC. Four fish finger samples were prepared by adding 15% starch as control sample (T1), 15% rice flour (T2), 15% bourghul (T3) and 15% soybean flour (T4). The fish fingers were subjected to the frozen storage for 3 month and the analysis were carried out at an intervals of one month. The Proximate composition, physiochemical, microbial characteristics and sensory evaluation of fish finger samples were determined. Moisture, protein and lipid contents, as well as the water holding capacity of fish finger samples showed significantly decreased ($P \leq 0.05$) with prolonging the duration of frozen storage period, while, ash and carbohydrate contents were significantly the opposite trend with increasing the storage period. The values of pH, TVB-N, TMA-N, TBA, PV and AV were significantly increased ($P \leq 0.05$) after the 3 months of frozen period. Total viable bacterial count (TVBC) was varied between 4.56 and 5.03 log cfu/g at zero time of storage. After 3 months of frozen storage, these values decreased to the range between 3.19 to 3.91 log cfu/g. It is worth to mention that the T4 sample prepared by adding 15% soybean flour was the best treatment of fish finger which recorded the highest scores for sensory evaluation of color, tenderness, juiciness, taste, flavor and over acceptability until the end of storage period.

Key words: Fish finger , fatty acid profile,Little tuna fish , microbial characteristics and Sensory evaluation**,** physiochemical, Proximate composition, Quality attributes .