



RESEARCH PAPER

# Effect of baking on quality characteristics of fish steak prepared from grass carp

■ S.R. SENAPATI, R. MISHRA\*, G. JENA AND K.C. DORA<sup>1</sup>

College of Fisheries (OUAT), Rangeilunda, BERHAMPUR (ODISHA) INDIA

<sup>1</sup>Faculty of Fishery Science, West Bengal University of Animal and Fishery Sciences, KOLKATA (W.B.) INDIA

\*Author for Correspondence

Research chronicle : Received : 23.04.2014; Revised : 19.05.2014; Accepted : 26.05.2014

## SUMMARY :

Low cost fresh water exotic carp, the grass carp (*Ctenopharyngodon idella*) which is cultivated in abundant in Odisha was considered for fish steak production through frying in oil and baking in microwave oven (Combination of convection and grilling) and effect of heat processing on quality changes of the product has been studied in the present paper. The study was conducted at the fish processing laboratory of College of Fisheries, Odisha during 2013. The fish steaks of about 50 g each were marinated with spice mixture at room temperature for 60 min for spices to penetrate into the fish muscle. One lot of the marinated fish steaks were fried following high temperature short time (HTST) method using mustard oil at a temperature of about 160°C for 6 to 8 mins and the other lot was baked in microwave oven at a dry heat temperature of 160°C (combination of convection and grilling) for a period of 18 mins following the method of Swain *et al.*, 2012. The proximate composition of raw fish steak, oil fried and baked fish steak samples revealed that moisture content fried and baked steaks decreased by 21.97 per cent where as crude protein and lipid content increased significantly by 70.01 per cent and 471.77 per cent, respectively ( $p < 0.05$ ) over that of raw fish steak sample. The chemical and micro biological changes due to frying and baking of the fish steaks were also analysed and discussed. From the organoleptic evaluation conducted in a 5-point hedonic scale, it was observed that the overall acceptability of baked fish steak product was at a higher degree over the oil fried fish steak sample.

**KEY WORDS :** Grass carp, Fish steak, Baking, Quality changes

**How to cite this paper :** Senapati, S.R., Mishra, R., Jena, G and Dora, K.C. (2014). Effect of baking on quality characteristics of fish steak prepared from grass carp. *Internat. J. Proc. & Post Harvest Technol.*, **5** (1) : 76-81.