

## **Determine the Effect of Functional Properties on Chicken Patty Incorporated with Salt Extracted Bioactive Compounds from *Pterygoplichthys pardalis* (Scavenger Fish)**

K.S.M. Dissanayake, T.K. Ediriweera and E.D.N.S. Abeyrathne

*Department of Animal Science, Uva Wellassa University, Badulla, Sri Lanka*

*Pterygoplichthys pardalis* is a tropical and invasive fresh water fish. Based on literature, the extracted compounds from this fish consist of anti-oxidative, antimicrobial and Fe<sup>2+</sup> chelating activities. Hence, the objective of this study was to determine the effect of these functional properties on chicken patty, incorporated with salt extracted bioactive compounds from *Pterygoplichthys pardalis*. Female fish were collected from a local reservoir and slaughtered in the field. Gonads (excluding GI tract and mucus) were separated within 3 hours and stored at 4°C. Separated parts were followed for extraction of proteins with distilled water (1:4) and then 10% (w/v) NaCl solution (1:4) and lyophilized. Extracted protein samples were incorporated to the preparation of chicken patty (Chicken meat, Salt, Spices) with 0, 0.5, 1, 1.5 and 2% (w/w) levels. Then TBARS assay, DPPH assay, Fe<sup>2+</sup> chelating activity and Total plate count were done for the product for Day 0, 2, 4, 7 and 14. According to TBARS and DPPH assay 2% (w/v) incorporation level gave the highest antioxidant activity and Fe<sup>2+</sup> chelating activity (p<0.05). Microbial counts of meat patty with 2% (w/v) incorporation level was suitable for 7 days compared with the control (p<0.05). As conclusion, 2% (w/v) incorporation level of salt extraction from *P. pardalis* can be used as a natural antioxidant, antimicrobial and metal chelating agent in chicken patty. However further studies needed to check for the maximum level of incorporation.

*Keywords:* TBARS, Bioactive compounds, Meat patty, Total plate count

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