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Manuscript # 86162-PJN-ANSI

Title African Catfish (Clarias gariepinus) from Central Java Indonesia as a Potential Alternative Raw Material for Surimi Production

Abstract Background and Objective: The properties of surimi gel are influenced by the fish species used and their chemical composition, as well as the endogenous enzyme activity found in fish muscle. The aim of this research is to investigate the potential of African catfish from Boyolali, Central Java, Indonesia as an alternative raw material for surimi production based on proximate composition, amino acid profile, protein composition, transglutaminase (TGase) and protease activity. Materials and Methods: This study used African catfish muscle as its raw material. The properties analyzed included proximate composition, amino acid profile, protein composition, and endogenous enzyme activity. Results: African catfish contains moisture content of 73.01%, ash 0.78%, crude protein 16.08% and crude fat 2.03%. This fish muscle has Gln and Lys residues that can support TGase activity. The protein composition showed a higher proportion of myofibrillar protein than the sarcoplasmic protein, there were 16.57 and 4.38 mgN/g muscle, respectively. Whereas the amount of stromal proteins was very low compared to the two previously mentioned proteins (0.71 mgN/g muscle). TGase activity of African catfish muscle was 0.18 U/mL (ΔAbs. 0.21), which was higher than protease activity (ΔAbs. 0.10). Conclusion: It was concluded that African catfish can be a potential alternative raw material for surimi production.

Categories Food Chemistry

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Dr. Retno Indrati, Food Sciences from Universitas Gadjah Mada, Indonesia

Subject: Acceptance Letter for Article No. 86162-PJN-ANSI

It's a great pleasure for us to inform you that below mentioned manuscript has been accepted for publication in Pakistan Journal of <u>Nutrition</u> as <u>Research Article</u> on the recommendation of the reviewers.

Title: African Catfish (Clarias gariepinus) from Central Java Indonesia as a Potential Alternative Raw Material for Surimi Production

Author's Name: Ita Zuraida, Sri Raharjo and Pudji Hastuti

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Regards

M. Imran Pasha **Publication Manager**

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