

The Quality of Surimi from Different Species of Freshwater Fish (Clarias gariepinus, Pangasius hypothalamus, Channa striata and Oreochromis niloticus)

Abstract

The rapid decline of marine fish species due to overheating oceans and over-catching that traditionally used for surimi making has prompted a search for alternative species from freshwater fish species. The aims of the study were to investigate the quality and the sensory acceptability of surimi made from different freshwater fish species which are African catfish (*Clarias gariepinus*), Sutchi catfish (*Pangasius hypothalamus*), Snakehead murrel (*Channa striata*) and Tilapia (*Oreochromis niloticus*). Surimi made from marine fish; threadfin bream was used as control. The method to produce surimi started with deheading, descaling, deboning and mincing the fresh fish. The minced fish flesh was also known as otoshimi and after undergone two cycles of washing processes with ice water and 3% salt, the otoshimi was then become surimi. There was no significant different in the yields of surimi from all the freshwater fish and control which in the ranged of 18.7 to 22.5%. Surimi from Snakehead murrel, Tilapia and Sutchi catfish showed the highest value for colour L*, a* and b* values, respectively. Surimi from Tilapia also had the highest gel strength (262.4 gF). As for protein, ash and moisture contents, there were significantly the highest (P<0.05) in Snakehead murrel, Tilapia and Sutchi catfish, respectively. As expected, there was no significant different (P>0.05) in fat contents for all the surimi regardless of the fish species. From the sensory acceptance test, fish cake made from African catfish surimi had the highest acceptability compared to other fish species.