

Title Chemical and biochemical changes of hybrid catfish fillet stored at 4 °C and its gel properties
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Abstract

Chemical and biochemical changes of aquacultured hybrid catfish fillet (*Clarias macrocephalus* × *Clarias gariepinus*) and its gel-forming ability as affected by age and sex of fish along with storage time were investigated. Fillets were stored at 4 °C for 0, 3, 6, 9, 12 and 15 days. There was no significant effect of sex and age of fish as well as storage time on fat, moisture and ash contents ($P > 0.05$). The total protein, water soluble protein, and salt soluble protein contents of the fillets significantly decreased with storage time ($P < 0.05$). On the other hand, pH, total volatile base nitrogen (TVB-N) and autolytic degradation products (ADP) increased as storage time continued ($P < 0.05$). Decreases in Ca²⁺-ATPase activity and gel properties were observed as storage time increased. However, there was no significant effect of either sex or age of fish on textural properties of gel ($P > 0.05$). Hybrid catfish fillet stored at 4 °C should be processed within 6 days.