

Salutary value of haruan, the striped snakehead *Channa striatus* – a review

ABSTRACT

Murrel namely *Channa striatus* or haruan contains all essential elements to maintain good health and to recover the lost energy after prolonged illness. The fatty acid composition (% of total fatty acid) indicated the abundant presence of C16:0 fatty acid as 30% and the other major fatty acids were C22:6 (15%), C20:4 (19%), C18:1 (12%) and C18:0 (15%). Haruan contains arachidonic acid (C20:4) as 19.0%, a precursor for prostaglandin and thromboxane biosyntheses. Both fatty and amino acids are important components for wound healing processes. Both the fillet and mucus extracts of haruan were found to exhibit a concentration dependent antinociceptive activity. In vitro antioxidant activity was higher in *Channa* roe protein hydrolysate than in *Labeo* roe protein hydrolysate in both DPPH radical scavenging and ferric reducing power. Protein content of roe concentrates (RPC) was found to be 90.2% (*Channa*) and 82.5% (*Labeo*). Water absorption, oil absorption, foam capacity, stability and emulsifying capacity were found to be higher in *Channa* RPC than in *Labeo* RPC. Characterization of protein hydrolysates from muscle and myofibrillar samples of haruan showed different kinetic and proteolytic activities. The skin extract of haruan influences the serotonergic receptor system thus they can function as an anti-depressant. Thus, haruan is the best example for food as medicine.

Keyword: *Channa striatus*; Haruan; Antinociceptive; Antioxidant; Cardiological effects