

Fatty acid and amino acid composition of three local Malaysian *Channa* spp. fish

ABSTRACT

The objective of this current study was to analyze the biochemical compositions of three Malaysian *Channa* spp. fish. The proximate analysis revealed that the protein content of *Channa lucius*, *Channa micropeltes* and *Channa striatus* was 19.9%, 22.1%, 23.0% (% of dry weight), respectively. The total lipid content was generally high, ranging from 5.7% to 11.9% and crude ash ranged from 1.0% to 1.8%. The major amino acids were glutamic acid, aspartic acid and lysine, ranging from 9.7% to 21.7%, and the most abundant fatty acid in *Channa* spp. was C16:0, ranging from 25.6% to 30.4%. The other major fatty acids detected were C22:6, C18:1 and C18:0. The level of arachidonic acid (C20:4) was unusually high in *C. striatus* (19.02%). The levels of DHA in these fish would also explain the use of *Channa* spp., especially *C. striatus*, which has been used for centuries for reducing pain, inflammation and promote wound healing in Malaysia.

Keyword: Fatty acids, Amino acids, *Channa* spp., Malaysian fish