

**Title** Fatty acid composition of three freshwater fishes under different storage and cooking processes

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### **Abstract**

Fatty acid composition of common carp (*Cyprinus carpio*), Nile tilapia (*Oreochromis niloticus*) and tambacu, a hybrid of tambaqui (*Colossoma macropomum*) and pacu (*Piaractus mesopotamicus*), was evaluated by gas chromatography. Raw, roasted and steamed fishes with and without skin were analyzed fresh and after 15, 30 and 45 storage days at  $-20^{\circ}\text{C}$ . Total lipid content was 9.3 g/100 g in carp, 0.79 g/100 g in tilapia and 1.3 g/100 g in tambacu with skin, with reductions of about 63%, 39% and 71% in the fishes without skin, respectively. The carp showed a high content of monounsaturated fatty acids (about 50%). In tilapia, palmitic and oleic acids were present in larger proportion, 26.55% and 23.86%, respectively. In tambacu, the fatty acid profile was 37% saturated, 34% monounsaturated and 21% polyunsaturated. Fatty acid composition did not present wide variations due to storage time and preparation, indicating that the storage and cooking methods used did not interfere in fatty acid composition.