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Determination of the toxicity of methanol extraction of red betel leaves (*Piper crocatum* Ruiz & Pav) on African sharp tooth catfish (*Clarias gariepinus*)

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ABSTRACT:

Reports have mentioned that red betel leaf (*P. crocatum*), a type of vegetable product, functions as anti-stress, growth promotor, appetite stimulation, imunostimulant, as well as antimicrobial for fish because red betel leaf contains alkaloids, tannins, flavonoids, pigments, phenolics, terpenoids, steroids, and essential oils. The objective of the study was to describe isolation of tannin class compounds using characteristics of UV-Vis and FTIR spectrophotometer method as well as LC_{50} score of *P. crocatum* tannin concentration in African sharptooth fish (*C. gariepinus*) as treatment agent. The extraction method used in the study was maceration in which methanol became the solvent. The sample was dissolved for 48 hours and ratio between the sample and solvent was 1: 2.5 (b:v). Thin Layer and Column Chromatography were used for isolating the tannin class compounds. The isolation of the tannin class compounds in the red betel leaves using the characteristics of UV-Vis and FTIR Spectrophotometer showed that isolated compound was the tannin class compound. Based on the LC_{50} toxicity testing of the *P. crocatum* tannin concentration, the highest score occurred when the concentration was 2.16 mg/kg.

Keywords:

Clarias gariepinus, LC_{50}, Piper crocatum, tannin

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