



The Potentiality of *Cabomba aquatica DC not Aubletii* Ethanol Extract as Larvicide against *Aedes aegypti* Larvae

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Abstract : *Cabomba* genus is well known as one of invasive aquatic plants around the world. The genus has brought both of environmental problems and economical significance in many countries, particularly for its vast distribution as ornamental plants in aquariums. Indonesia used to be one of importers of this plant. Recently, Indonesia has successfully cultivated the plant and turned into one of exporter countries of the plant.

The most common species of *Cabomba* plants cultivated in Indonesia is *Cabomba aquatica DC not Aubletii*. Previous studies suggested that the plant had one form of defense mechanism to protect itself from disturbing organisms around it. Yet, its potentiality as larvicide producing toxic substance to prevent larvae growth (including *Aedes aegypti* larvae) remains unknown. Considering this phenomenon, this study is aimed to identify the effect of ethanol extract produced by *Cabomba aquatica DC not Aubletii* against *Aedes aegypti* larvae.

The whole body of *Cabomba aquatica DC not Aubletii* was using ethanol 96%. The method of this research used ethanol extract to get secondary metabolite compounds that were identified based on Thin Layer Chromatography (TLC). In order to examine the potentiality of *Cabomba* extract, treatment groups (each consists of 25 *Ae. aegypti* larvae) were treated using different concentrations of *C. aquatica* extract for 24 hours duration.

The result of this study showed that there were two groups of *Cabomba aquatica DC not Aubletii* ethanol extract secondary metabolite compounds. Meanwhile, according to statistical analysis that the treatment groups indicated ethanol extract of *Cabomba aquatica DC not Aubletii* was significantly effective against *Aedes aegypti* larvae.

Based on the result, it can be concluded that *Cabomba aquatica DC not Aubletii* was effective as larvicide against *Aedes aegypti* larvae. This potentiality was associated with secondary metabolite compounds of its ethanol extract.

Keywords : *Cabomba*, larvicide, secondary metabolites.