

**EFFECTIVE CONCENTRATION (EC₅₀-1H) OF EXTRACT ROOT OF
TUBA (*Derris elliptica* Benth.) AS ANESTHETIC AGENT
FOR CARP FISH (*Cyprinus carpio* Linn.)
CLOSED TRANSPORTATION SYSTEM**

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ABSTRACT

Tuba (*Derris elliptica*) root was used traditionally as a poison to catch fresh water fishes. The objective of this research was to analyze an effective concentration (EC₅₀-1 Hour) value of tuba root extracts by using ethanol solvent and hexane in turn , and also to reveal the influence both of effective concentration value and transportation period toward viability and growth of carp fish. Research method which was used to determine the effective concentration is probit analysis, whereas to determine the effect of differences of periods of transportation (2 , 4 and 6 hours) and the value of the effective concentration of each solvent on the survival and the growth of the research design used factorial analysis. The results of probit analysis for ethanol and hexane solvent were 6.166 and 3.72 ppm. Transportation test showed that the highest survival rate at treatment of transportation was in period 2 hour by the value reaching an average of 100%, meanwhile the highest growth occurred in hexane treatment on the period of transportation of 6 hours. This results also found that the differences period of transportation affected significantly to survival of carp fish but had no significant effect on the growth of carp fish. The other results showed that the variance of the solvent did not affect significantly to the survival and the growth of carp fish.

Keywords : tuba root, anesthetic, carp fish, closed transportation system