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KAJIAN AKTIVITAS BIOLARVASIDA TUMBUHAN KELUARGA ANACARDIACEAE TERHADAP LARVA NYAMUK *Aedes aegypti*

ABSTRAK

Latar belakang : Berdasarkan beberapa penelitian, tumbuhan keluarga *Anacardiaceae* mempunyai senyawa flavonoid, terpenoid, steroid, dan saponin mempunyai aktivitas sebagai biolarvasida. Penelitian bertujuan untuk mengetahui aktivitas biolarvasida tumbuhan keluarga *Anacardiaceae* dan untuk mengetahui metabolit sekunder yang terdapat di tumbuhan family *Anacardiaceae* yang mampu mematikan larva nyamuk.

Metode : Desain penelitian ini adalah kajian artikel. Penelitian ini dilakukan dengan pengambilan simpulan dan penggabungan hasil penelitian dari 7 jurnal yang terindeks tentang aktivitas biolarvasida di tumbuhan keluarga *Anacardiaceae*.

Hasil : Ekstrak etanol daun binjai mampu membunuh larva *Aedes aegypti* 50% pada konsentrasi 5493.390 mg/L, ekstrak etanol daun sengkung efektif membunuh larva nyamuk pada konsentrasi 1.25%, dibandingkan dengan temephos 0.012 mg/L, ekstrak daun *serebinthifolius* memiliki nilai LC50 0,62% (pada larva tidak makan) dan 1,03% (pada larva diberi makan), ekstrak etanol *Gluta renghasand* dapat menekan populasi *Aedes* ($F = 17.021$, $df = 5$, $p = 0.000$), fraksi heksan juga menunjukkan toksisitas yang lebih baik dengan LC 50 dari 326,53 ppm.

Kesimpulan : Tumbuhan keluarga *Anacardiaceae* mempunyai aktivitas biolarvasida. Kandungan metabolit sekunder dari tumbuhan *Anacardiaceae* adalah proanthocyanidins polimer, tanin terhidrolis, flavonoid heterosid dan aglikon, turunan asam sinamat, jejak steroid, dan aktivitas lektin yang memiliki mekanisme masing-masing dalam mempengaruhi larva *Aedes aegypti* untuk bertahan hidup

Kata kunci : *Anacardiaceae*, *Biolarvasida*, *Aedes aegypti*

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STUDY BIOLARVASIDAL ACTIVITY OF ANACARDIACEAE FAMILY PLANT ON Aedes Aegypti MOSQUITO LARVAE

ABSTRACT

Background: Based on several studies, the Anacardiaceae family shows that flavonoids, terpenoids, steroids, and saponins have activity as biolarvicides. This study aims to determine the plant family Anacardiaceae has biolarvicide activity and to determine the secondary metabolites found in the plant Anacardiaceae family that can kill mosquito larvae.

Method : The design of this research is review articles. This research was conducted by taking conclusions and combining research results from 7 indexed journals on biolarvicide activity in plants of the Anacardiaceae family.

Result : The ethanol extract of binjai leaves was able to kill 50% *Aedes aegypti* larvae at a concentration of 5493,390 mg / L, the ethanol extract of sengkuang leaves was effective at killing mosquito larvae at a concentration of 1.25%, compared with temephos 0.012 mg / L, the extract of *Cerebinthifolius* leaves had an LC50 value of 0.62% (in unfeeding larvae) and 1.03% (in feeding larvae), ethanol extract of *Gluta renghasand* can suppress *Aedes* population ($F = 17.021$, $df = 5$, $p = 0.000$), hexane fraction also showed better toxicity with LC 50 of 326.53 ppm.

Conclusion : The plants of the Anacardiaceae family have biolarvicidal activity. The content of secondary metabolites of Anacardiaceae plants are polymer proanthocyanidins, hydrolyzed tannins, heterosid flavonoids and aglycones, cinnamic acid derivatives, traces of steroids, and lectin activity which have their respective mechanisms in influencing *Aedes aegypti* larvae to survive..

Keywords : *Anacardiaceae*, *Biolarvicide*, *Aedes aegypti*