

Uji bioaktivitas ekstrak lamun cymodocea rotundata asch. & schweinf. dan thalassia hemprichii (ehrenb. ex solms) asch. sebagai larvasida nyamuk aedes aegypti l. = Bioactivity test of cymodocea rotundata asch. & schweinf. and thalassia hemprichii (ehrenb. ex solms) asch. seagrass extract larvicide of aedes aegypti l. mosquito

Harxylen Kinanti Purnomo, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20464807&lokasi=lokal>

Abstrak

Lamun memiliki banyak senyawa aktif dan potensial di bidang kesehatan dan pengobatan. *Cymodocea rotundata* dan *Thalassia hemprichii* dikoleksi dari Pulau Pramuka TNKpS dan Karang Sewu TNBB. Sampel kemudian dipisahkan berdasarkan daun, rimpang dan akar. Setiap bagian dibuat menjadi simplisia dan diesktraksi menggunakan metanol (1:3; b/v). Semua ekstrak dikarakterisasi menggunakan HPLC dan diuji aktivitas larvasida terhadap larva instar III *Aedes aegypti*. Sebanyak 25 larva instar III *Aedes aegypti* dipindahkan ke 250 mL botol sampel yang berisi 100 mL ekstrak 1%. Terdapat dua kontrol yaitu akuades dan abate 1%. Mortalitas larva dicatat pada 12, 24 dan 48 jam. Ekstrak daun *T. hemprichii* memiliki persentase mortalitas tertinggi yaitu 100% pada 12 jam. Konsentrasi LC50 ekstrak daun *T. hemprichii* yaitu 0,56%. Hasil kromatogram organ spesies *C. rotundata* dan *T. hemprichii* menunjukkan tidak ada perbedaan. Dari hasil tersebut disimpulkan bahwa ekstrak daun *T. hemprichii* memiliki aktivitas yang paling potensial sebagai larvasida Ae. aegypti.

.....

Seagrass contains bioactive compounds that are potential to be developed in health and medicinal application. *Cymodocea rotundata* and *Thalassia hemprichii* was collected from Pramuka Island TNKpS and Karang Sewu TNBB. Samples were cut into different parts i.e. leaf, rhizome, and root. Each part was dried as a powdered simplicia and extracted using methanol (1:3; w/v). All the extracts were characterized using HPLC and tested as larvicide against the larvae of *Aedes aegypti*. Batches of 25 early 3rd instar larvae of Ae. aegypti were transferred into 250 mL sample bottles containing 100 mL 1% extract. There are two control groups: abate (1%) and aquadest. The mortality of larvae was observed after 12, 24, and 48 hours. The leaves extract of *T. hemprichii* showed the highest mortality 100% after 12 h with LC50 concentration 0.56%. Chromatogram results from different species of *C. rotundata* and *T. hemprichii* showed a similar pattern of peaks. The results suggested that leaves extract of *Thalassia hemprichii* have the highest potential to be used as a larvicide against Ae. aegypti larvae.