

**ABILITY TEST OF MAANVIS FISH (*Pterophyllum altum*) SWORD  
PLATY FISH (*Xyphophorus helleri*) AND BETTA FISH (*Betta  
splendens*) AS A MOSQUITO LARVA PREDATOR *Aedes aegypti***

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**ABSTRACT**

Dengue Hemorrhagic Fever (DHF) is caused by the dengue virus which is transmitted through the bite of the *Aedes aegypti* mosquito. Mosquitoes have a habit of breeding in clean water. One of the vector control efforts is biologically by using predatory fish larvae of *Aedes aegypti*. The purpose of this study was to analyze the differences in the abilities of Maanvis Fish, Sword Platy Fish, and Betta Fish as predators of *Aedes aegypti* mosquito larvae, through a *true experiment* with a *post test only control group* design.

Numerical data were obtained by counting 25 third instar larvae which were eaten by the three predatory fish in each treatment. The three predatory fish, and the control each got 6 times of replication. Observations were made for 1 hour. Data analysis using *Two Way Anova Test*.

The results showed  $p < 0.05$  which means there is a difference in the average speed ability between Maanvis Fish, Sword Platy Fish, and Betta Fish in preying on *Aedes aegypti* mosquito larvae. The fastest average ability to prey on *Aedes aegypti* larvae for each fish is Maanvis fish as many as 24, Sword Platy fish as many as 23, and Betta fish as many as 25.

Suggestions to health workers to mobilize the community to use *Aedes aegypti* mosquito larvae eating fish as an alternative for Mosquito Nest Eradication (PSN). The research that has been done can be used as a reference for other researchers with different variables.

**Keywords : The predatory abilities of the Maanvis Fish (*Pterophyllum altum*), Sword Platy Fish (*Xyphophorus helleri*), Betta Fish (*Betta splendens*), *Aedes aegypti* mosquito larvae**

**UJI KEMAMPUAN IKAN MAANVIS (*Pterophyllum altum*) IKAN  
PLATI PEDANG (*Xyphophorus helleri*) DAN IKAN CUPANG (*Betta  
splendens*) SEBAGAI PREDATOR LARVA NYAMUK *Aedes aegypti***

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**ABSTRAK**

Penyakit Demam Berdarah Dengue (DBD) disebabkan oleh virus *dengue* yang ditularkan melalui gigitan nyamuk *Aedes aegypti*. Nyamuk mempunyai kebiasaan berkembang biak di tempat air bersih. Salah satu upaya pengendalian vektor adalah secara biologi dengan menggunakan ikan predator larva *Aedes aegypti*. Tujuan penelitian ini adalah menganalisis perbedaan kemampuan Ikan Maanvis, Ikan Plati Pedang, dan Ikan Cupang sebagai predator larva nyamuk *Aedes aegypti*, melalui eksperimen murni (*true experiment*) dengan desain *post test only control group*.

Data numerik diperoleh dengan menghitung larva instar III sebanyak 25 ekor yang dimakan ketiga ikan predator dalam setiap perlakuan. Ketiga ikan predator, dan kontrol masing – masing mendapatkan replikasi sebanyak 6 kali. Pengamatan dilakukan selama 1 jam. Analisis data menggunakan Uji *Two Way Anova*.

Hasil penelitian menunjukkan  $p < 0,05$  yang berarti ada perbedaan rata – rata kemampuan kecepatan antara Ikan Maanvis, Ikan Plati Pedang, dan Ikan Cupang dalam memangsa larva nyamuk *Aedes aegypti*. Kemampuan rata – rata tercepat memangsa larva *Aedes aegypti* masing – masing ikan adalah Ikan Maanvis sebanyak 24 ekor, Ikan Plati Pedang sebanyak 23 ekor, dan Ikan Cupang sebanyak 25 ekor.

Saran kepada petugas kesehatan untuk menggerakkan masyarakat menggunakan ikan pemakan larva nyamuk *Aedes aegypti* sebagai salah satu alternatif Pemberantasan Sarang Nyamuk (PSN). Penelitian yang telah dilakukan bisa digunakan sebagai referensi bagi peneliti lain dengan variabel yang berbeda.

**Kata Kunci : Kemampuan predator Ikan Maanvis (*Pterophyllum altum*), Ikan Plati Pedang (*Xyphophorus helleri*), Ikan Cupang (*Betta splendens*), larva nyamuk *Aedes aegypti***