

## POPULASI *Aedes aegypti* DAN *Aedes albopictus* VEKTOR DENGUE SERTA POTENSI NYAMUK PREDATOR *Toxorhynchites splendens* DI RUANG TERBUKA HIJAU KOTA BANJARBARU

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### INTISARI

*Aedes aegypti* dan *Ae. albopictus* bersifat antropofilik, sehingga mencari habitat yang dekat dengan keberadaan manusia. Ruang Terbuka Hijau (RTH) merupakan areal luar rumah di perkotaan yang ditanami berbagai jenis tanaman. . Tanaman di RTH sekitar permukiman Kota Banjarbaru dimanfaatkan *Ae. aegypti* dan *Ae. albopictus* sebagai *breeding place*. Populasi nyamuk *Ae. aegypti* dan *Ae. albopictus* yang melimpah di RTH akan menarik berbagai predator nyamuk datang termasuk larva predator *Toxorhynchites splendens*. Penelitian ini dilakukan di wilayah RTH sekitar permukiman dan perkebunan karet di Kota Banjarbaru dengan tujuan untuk mengetahui: (1) karakteristik habitat *Tx. splendens* pradewasa di perkebunan karet dan kemampuan predasinya; (2) luas area, kepadatan, dan jenis vegetasi penyusun RTH sekitar permukiman; dan (3) karakteristik populasi *Ae. aegypti* dan *Ae. albopictus* di RTH. Penelitian populasi *Tx. splendens* pradewasa dilakukan bulan Maret 2020-Oktober 2020 dengan metode jelajah dengan cara mengamati pradewasa di wadah getah karet yang dilanjutkan dengan penghitungan indeks kontainer (CI) dan pengujian kemampuan predasi. Penelitian luas wilayah RTH dan karakteristik populasi *Ae. aegypti* dan *Ae. albopictus* dilakukan dari bulan September 2021-Maret 2022. Luas wilayah RTH dipetakan dengan citra satelit sentinel-2 dianalisis dengan metode *normal different vegetation index* (NDVI). Karakteristik populasi *Ae. aegypti* dan *Ae. albopictus* di RTH dikaji dengan metode surveilans telur dan dilakukan penghitungan jumlah telur dengan indeks *ovitrap positively index* (OPI). Hasil penelitian ini menunjukkan bahwa indeks CI *Tx. splendens* dari bulan Maret sampai oktober dari 20%- 100%. Larva *Tx. splendens* mampu memangsa larva *Ae. aegypti* dan *Cx. quinquefasciatus* berturut-turut sebanyak 10,6 ekor/hari dan 12 ekor/hari dan menjadi pupa berturut-turut dengan rata-rata 14,55 hari dan 12 hari. Wilayah RTH sekitar permukiman kota Banjarbaru tertutup vegetasi rapat seluas 61% dengan indeks OPI *Ae. aegypti* dan *Ae. albopictus* mencapai 100% setelah 6 hari pemasangan *ovitrap*. Kesimpulan dari penelitian ini adalah *Tx. splendens* masih dijumpai di wilayah perkebunan karet Kota Banjarbaru yang mampu memangsa larva *Ae. aegypti* dan *Cx. quinquefastiatus* dan RTH sekitar permukiman Kota Banjarbaru menjadi habitat nyamuk *Ae. aegypti* dan *Ae. albopictus*.

**kata kunci:** *Ae. aegypti* dan *Ae. albopictus*, *Tx. splendens*, RTH, vegetasi, *ovitrap*

POPULATIONS OF *Aedes aegypti* AND *Aedes albopictus* AS DENGUE VECTORS  
AND POTENTIALLY PREDATOR *Toxorhynchites splendens* IN GREEN OPEN  
SPACE BANJARBARU CITY

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ABSTRACT

*Aedes aegypti* and *Ae. albopictus* is anthropophilic, this mosquito occupies habitats close to human existence, such as Green Open Space (GOS). GOS is an outdoor area in urban areas planted with various types of plants. Around the settlement of Banjarbaru City there is GOS with various types of plants used by *Ae. aegypti* and *Ae. albopictus* as a breeding place. The abundance of the population of *Ae. aegypti* and *Ae. albopictus* in GOS will attract the presence of various mosquito predators, including the predatory larvae of *Toxorhynchites splendens*. This research was conducted in the GOS area around settlements and rubber plantations in Banjarbaru City, with the aim of finding out: (1) habitat characteristics of preadult *Tx. splendens* in rubber plantations and their predation ability; (2) the area, density, and type of vegetation that make up the GOS around settlements; and (3) population characteristics of *Ae. aegypti* and *Ae. albopictus* in GOS. The preadult *Tx. splendens* population study was conducted March-October 2020. The study was conducted by roaming method, by observing preadult mosquitoes in rubber sap containers, followed by calculating container index (CI) and testing predation ability. Research on measuring the area of GOS and population characteristics of *Ae. aegypti* and *Ae. albopictus* was conducted from September 2021-March 2022. The GOS area was mapped with sentinel-2 satellite imagery and analyzed using the normal different vegetation index (NDVI) method. Population characteristics of *Ae. aegypti* and *Ae. Albopictus* in GOS was studied by egg surveillance method, also counting the number of eggs with ovitrap positively index (OPI). The results showed that the CI index of *Tx. splendens* from March to October ranged from 20% - 100%. *Tx. splendens* larvae are capable of preying on *Ae. aegypti* larvae and *Cx. quinquefasciatus* were 10.6 per day and 12 per day respectively and became pupae with an average of 14.55 days and 12 days, respectively. The GOS area around the Banjarbaru city settlement is covered by 61% dense vegetation, with an OPI index *Ae. aegypti* and *Ae. Albopictus* reaches 100% after 6 days of ovitrap insertion. The conclusion of this study is that *Txsplendens* are still found in the rubber plantation area of Banjarbaru City which is able to prey on *Ae. aegypti* larvae and *Cx. quinquefastiatus* and GOS around the settlement of Banjarbaru City become the habitat of *Ae. aegypti* mosquitoes and *Ae. albopictus*.

keyword: *Ae. aegypti* and *Ae. albopictus*, ovitrap, Green Open Space, *Tx. splendens*, vegetation