

KARAKTER KOMUNITAS SERANGGA BERDASARKAN PEMBUNGAAN CENDANA (*Santalum album* Linn.) DI DUSUN TLOGO, NGLANGGERAN, GUNUNGKIDUL

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Intisari

Pohon merupakan salah satu model habitat yang digunakan untuk melakukan penelitian serangga. Pada penelitian ini digunakan cendana yang tumbuh secara alami di Nglanggeran, Gunungkidul. Penelitian ini dilakukan untuk mengetahui komunitas serangga pada cendana dan pengaruh variasi karakter pembungaan cendana (jumlah, letak, dan fase) terhadap komunitas serangga. Informasi mengenai interaksi antarspesies pada level individu diperlukan karena dapat membentuk struktur komunitas.

Penelitian dilakukan pada puncak periode pembungaan yaitu pada bulan Februari 2015. Waktu pengamatan yang dipilih adalah *anthesis*, *anthesis to late anthesis* dan *late anthesis*. Penentuan kelompok tegakan cendana menggunakan metode *survey*, kemudian dipilih cendana yang memiliki warna bunga dan fase bunga yang sama. Metode yang digunakan untuk pengamatan komunitas serangga adalah *direct sampling*. Pencatatan dilakukan berdasarkan jenis dan letak serangga (Modifikasi metode Jones dan Little), dokumentasi dan koleksi. Identifikasi serangga dilakukan di Laboratorium Entomologi Fakultas Pertanian Universitas Gadjah Mada Yogyakarta. Data keragaman serangga diolah dengan menggunakan *Microsoft Excel* dan analisis statistik korelasi dengan SPSS versi 16.0. Pengaruh pembungaan terhadap komunitas diketahui dengan menggunakan analisis statistik MANOVA.

Komunitas serangga pada cendana di Dusun Tlogo, Nglanggeran, Gunungkidul terdiri atas 7 ordo dan 23 famili yang terdiri atas trofik level kedua yakni Hymenoptera (Formicidae, Xylocopidae, Apidae, Vespidae, Eumenidae, Scoliidae, Megachilidae); Diptera (Syrphidae, Muscidae); Hemiptera (Phyrroridae, Scutelleridae, Cicadellidae); Lepidoptera (Arctiidae, Hesperidae, Pieridae, Nymphalidae, Noctidae); Coleoptera (Tenebrionidae, Chrysomellidae); dan Orthoptera (Acrididae). Adapun trofik level ketiga adalah Hymenoptera (Formicidae, Vespidae, Eumenidae, Scoliidae, Megachilidae); Diptera (Syrphidae, Muscidae); Coleoptera (Lycidae, Coccinellidae); dan Odonata (Libellulidae). Beberapa serangga termasuk ke dalam kedua trofik level yaitu anggota ordo Hymenoptera dan Diptera. Pengaruh jumlah bunga signifikan terhadap Famili Formicidae, Vespidae, Eumenidae, Syrphidae, Muscidae, Hesperidae, dan Nymphalidae. Sedangkan strata bunga berpengaruh terhadap Vespidae, Eumenidae, Scoliidae, Hesperidae, Pieridae, Nymphalidae. Arah dan fase tidak memberikan pengaruh secara signifikan tanpa berinteraksi dengan faktor lain.

Kata kunci: *komunitas serangga, trofik level, pengaruh pembungaan, cendana*

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**CHARACTER OF INSECT COMMUNITY BASED ON SANDALWOOD
(*Santalum album* Linn.) FLOWERING PHASE IN TLOGO VILLAGE,
NGLANGGERAN, GUNUNGKIDUL**

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Abstract

Tree is a habitat for insect models used on research in insect community. This research was done using sandalwood which grows naturally in Nglanggeran, Gunungkidul. This research was conducted to determine the insect community in sandalwood and to determine the effect of variations of flowering sandalwood character (abundance, location, and phase) of the insect community. Information of interaction among species is needed on community structure formation.

The study was conducted at the peak of the flowering period in February 2015. The selected observation time is anthesis, anthesis to late anthesis and late anthesis. Survey method used to select the group of stands of sandalwood, and the individual that has the same floral color and same flowering phase were then selected. The method used for observation of the insect community is direct sampling. Recording was done based on the type and location of the insects (Modified of Jones and Little methods), documentation and collection. Identification of insect held at the Laboratory of Entomology, Faculty of Agriculture, University of Gadjah Mada. Insect diversity was processed using Microsoft Excel and statistical analysis of correlation with SPSS version 16.0. The influence of flowering phase to community was measured by MANOVA statistical analysis.

Insect communities in sandalwood in Tlogo Village, Nglanggeran, Gunungkidul consist of 7 orders and 23 families, consisted of the second trophic level: Hymenoptera (Formicidae, Xylocopidae, Apidae, Vespidae, Eumenidae, Scoliidae, Megachilidae); Diptera (Syrphidae, Muscidae); Hemiptera (Phyrrocidae, Scutelleridae, Cicadellidae); Lepidoptera (Arctiidae, Hesperidae, Pieridae, Nymphalidae, Noctidae); Coleoptera (Tenebrionidae, Chrysomellidae); and Orthoptera (Acrididae), and the third trophic level: Hymenoptera (Formicidae, Vespidae, Eumenidae, Scoliidae, Megachilidae); Diptera (Syrphidae, Muscidae); Coleoptera (Lycidae, Coccinellidae); and Odonata (Libellulidae). Some insects were included into two trophic levels: members of the order Hymenoptera and Diptera. Flower abundance was significantly influenced Family Formicidae, Vespidae, Eumenidae, Syrphidae, Muscidae, Hesperidae, Nymphalidae; while stratum affected the Vespidae, Eumenidae, Scoliidae, Hesperidae, Pieridae, Nymphalidae. The direction and the phase did not significantly influenced without any interaction with other factors.

Keywords: insect community, trophic levels, the effect of flowering, sandalwood

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