



INTISARI

PERAN SIMFILID PADA EKOSISTEM TANAMAN NANAS

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Peran simfilid pada ekosistem tanaman nanas sebagai hama atau sebagai dekomposer dan faktor pendukung pertumbuhan populasinya belum diketahui pasti. Penelitian ini bertujuan untuk analisis signifikansi peran simfilid pada ekosistem tanaman nanas dan faktor-faktor yang mempengaruhi pertumbuhan populasi. Percobaan lapangan dilakukan di Kebun Nanas yang bergejala serangan simfilid milik PT. Great Giant Pineapple (GGP) Lampung. Percobaan pertama adalah uji preferensi umpan dan percobaan kedua adalah uji peran simfilid pada pertanaman nanas. Percobaan pertama menggunakan Rancangan percobaan RCBD dua faktor tiga blok. Faktor pertama adalah lima macam umpan; ubi kentang, daun pepaya, daun singkong, daun nanas, dan akar nanas sehat. Faktor kedua adalah tujuh hari pengamatan. Percobaan kedua menggunakan rancangan percobaan Split Plot enam ulangan. Plot Utama adalah stadia pertumbuhan nanas; vegetatif dan generatif. Sub Plot adalah umpan daun pepaya dan akar tanaman nanas sehat. Parameter pengamatan meliputi populasi fauna tanah termasuk simfilid, kadar C, N dan kadar air umpan. Anova $\alpha_{0,05}$ dilanjutkan DMRT dan uji Tukey dilakukan untuk analisis signifikansi preferensi umpan dan peran simfilid. Analisis multiregresi linier dilakukan untuk menentukan faktor-faktor yang berpengaruh terhadap dan berkorelasi dengan populasi simfilid. Hasil penelitian menunjukkan bahwa simfilid paling menyukai umpan kentang dan daun pepaya, sebaliknya simfilid paling tidak menyukai umpan akar tanaman nanas sehat. Simfilid dalam ekosistem tanaman nanas baik pada fase pertumbuhan vegetatif maupun generatif berperan sebagai dekomposer adapun sebagai hama sifatnya kondisional. Simfilid di pertanaman nanas percobaan termasuk dalam genus *Hanseniella*, famili *Scutigerellidae*. Diversitas dan dominansi fauna tanah di pertanaman nanas termasuk rendah. Diversitas fauna tanah pada umpan daun pepaya signifikan lebih tinggi daripada umpan akar nanas sehat. Kadar C umpan meningkatkan signifikan populasi simfilid sedangkan kadar N umpan menurunkan signifikan populasi simfilid.

Kata kunci: C/N, dekomposer, nanas, preferensi, simfilid

ABSTRACT

THE ROLE OF SYMPHYLIDS IN THE PINEAPPLE CROP ECOSYSTEM

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The role of symphyliids in the pineapple crop ecosystem, whether they are as a pest or decomposer, and the factors influencing their population growth remain not really understood. This study aimed to analyze the significance of the symphyliid role in the pineapple crop ecosystem and the factors affecting their population growth. The field experiment was conducted in a pineapple plantation exhibiting symptoms of symphyliid infestation, owned by PT. Great Giant Pineapple (GGP) in Lampung. The first experiment was bait preference test, while the second one was the role of symphyliids in pineapple plantations. The first experiment used a randomized completely block design (RCBD) with two factors and three blocks. The first factor consisted of five types of bait: potato tubers, papaya leaves, cassava leaves, pineapple leaves, and healthy pineapple roots. The second factor consisted of seven consecutive days of observation. The second experiment used a split-plot design with six replications. The main plot consisted of pineapple growth stages; vegetative and generative, while the subplot consisted of papaya leaves and healthy roots of pineapple seedling as a bait. Observation parameters were soil fauna populations including symphyliids, as well as carbon (C), nitrogen (N), and moisture content of the baits. Anova $\alpha_{0,05}$ followed by DMRT and Tukey's test, was conducted to analyze the significance of bait preference and the role of symphyliids. Multiple linear regression analysis was performed to determine the factors influencing and correlating with the symphyliid population. The results showed that the symphyliids most prefer baits of potato tubers and papaya leaves, while the bait of healthy pineapple plant roots was least preferred. Symphyliids in the pineapple crop ecosystem, both in the vegetative and generative growth stages, they acted as a decomposer, while their role as a pests was conditional. The symphyliids found in the experimental pineapple plantations belonged to the genus *Hanseniella*, family Scutigelleridae. The diversity and dominance of soil fauna in pineapple plantations were relatively low. The diversity of soil fauna in papaya leaf bait was significantly higher than in healthy pineapple root bait. The carbon (C) content in the bait significantly increased the symphyliid population, while the nitrogen (N) content significantly reduced the symphyliid population.

Keywords: C/N, decomposer, pineapple, preference, symphyliid