Intisari

DISTRIBUSI SPASIAL, RESPON NUMERIK, DAN AGREGASI *Pardosa* sp. SEBAGAI PREDATOR WERENG PADI

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Penelitian ini bertujuan untuk menganalisis dan mendeskripsi cemiri ekologi predator *Pardosa* sp. dalam interaksinya dengan hama wereng, antara lain meliputi aspek distribusi spasial predator (*Pardosa* sp.) dan wereng di sawah, respon numerik *Pardosa* sp. terhadap wereng pada kondisi lapangan (sawah), agregasi *Pardosa* sp. pada rumpun padi dengan populasi mangsa yang tinggi. Jenis wereng meliputi wereng coklat (*Nilaparvata lugens* Stal.), wereng hijau (*Nephotettix virescens* Distant.) dan wereng punggung putih (*Sogatella furcifera* Horvath). Penelitian dilaksanakan pada bulan Februari – Mei 2016 di Kecamatan Moyudan, Kabupaten Sleman, Daerah Istimewa Yogyakarta, pada lahan padi. *Pitfall trap* sebanyak 30 unit dipasang secara acak selama 24 jam pada lahan pra tanam. Pengamatan predator dan mangsa pada pertanaman umur 7HST, 14 HST, 21 HST, bunting, berbunga dan masak susu dengan sampel 100 rumpun yang diambil secara acak. Hasil analisis menunjukkan bahwa *Pardosa* sp. memiliki pola sebaran acak di semua umur tanaman. Pola distribusi wereng pada pertanaman umur 7 HST, 14 HST, 21 HST, bunting dan masak susu adalah acak, pada stadia berbunga adalah mengelompok. *Pardosa* sp. di sawah menunjukkan respon numerik kuat terhadap mangsa wereng, ditunjukkan oleh nilai korelasi R = 0,766. *Pardosa* sp. juga menunjukkan agregasi pada rumpun padi dengan kepadatan mangsa yang tinggi pada padi stadia umur 21 HST, bunting, berbunga dan masak susu.

Kata kunci: Distribusi spasial, respon numerik, agregasi, *Pardosa* sp, wereng, padi.

Abstract

SPATIAL DISTRIBUTION, NUMERICAL RESPONSE, AND AGGREGATION OF *Pardosa* sp. AS A PREDATOR OF RICE PLANTHOPPER

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The purpose of this research was to analyze and describe the ecological characteristics of predatory *Pardosa* sp. in term of its interaction with rice planthopper, comprised of their spatial distribution, the numerical response of the predator against its prey, and aggregation of the predator on rice hill with highest population of prey in rice field. The rice planthoppers were brown planthoppers (*Nilaparvata lugens* Stal.), green leafhoppers (*Nephotettix virescens* Distant.) and white planthoppers (*Sogatella furcifera* Horvath). The research was conducted in February until May 2016 in Moyudan, Sleman, Yogyakarta, in the irrigated rice field. Pitfall traps as many as 30 units were installed randomly for 24 hours in field before days prior to transplanting. Observations of predators and prey were conducted at 7 DAT, 14 DAT 21 DAT, primordia, flowering and milky ripening with 100 hills which taken at random. Results showed that *Pardosa* sp. exhibited a random distribution pattern in all rice stages. Meanwhile, the rice planthoppers exhibited clumped distribution pattern at flowering stage and random at all other rice stages. The *Pardosa* sp. exhibited strong numerical response to densities of the rice planthoppers, such as showed by correlation value R = 0.766. At rice stages of 21 DAT, primordia, flowering and milky ripening, the *Pardosa* sp. aggregated to the rice hills with high population density of planthoppers.

Keywords : Spatial distribution, Numerical response, aggregation, *Pardosa* sp. Planthopper, rice.