ABSTRAK

KEANEKARAGAMAN SERANGGA NOKTURNAL DAN PERANANNYA TERHADAP KESEIMBANGAN DI PERTANAMAN JAGUNG DESA WAY URANG, KALIANDA, LAMPUNG SELATAN

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Jagung (*Zea mays* L.) merupakan salah satu tanaman pangan penting yang memiliki peran strategis dalam pembangunan pertanian serta perekonomian di Indonesia. Namun, produktivitas jagung seringkali terancam oleh serangan hama, khususnya serangga herbivor. Serangga nokturnal (aktif malam hari) memiliki peran penting dalam ekosistem pertanian, tidak hanya sebagai hama, tetapi juga sebagai polinator, predator, parasitoid, dan dekomposer yang mendukung keseimbangan ekosistem. Penelitian ini bertujuan untuk mengidentifikasi jenis, tingkat keanekaragaman, serta peranan serangga nokturnal pada fase pra musim tanam dan fase vegetatif (30 HST) pertanaman jagung di Desa Way Urang, Kalianda, Lampung Selatan. Penelitian dilaksanakan pada bulan Desember 2025 - Januari 2026 menggunakan metode *purposive random sampling* dengan alat perangkap kain lampu (*light sheet trap*). Analisis data dilakukan menggunakan indeks keanekaragaman Shannon-Wiener (H'), indeks kemerataan (E), dan indeks dominansi Simpson (C). Hasil penelitian menunjukkan bahwa pada fase pra musim ditemukan 40 individu serangga nokturnal yang terdiri atas 5 ordo, 11 famili, dan 15 spesies. Sementara itu, pada fase vegetatif (30 HST) ditemukan 85 individu yang terdiri atas 5 ordo, 15 famili, dan 20 spesies. Ordo Hymenoptera (famili Vespidae) merupakan kelompok yang paling mendominasi. Nilai H' pada fase pra musim sebesar 2,350 dan fase vegetatif (30 HST) sebesar 1,970 (kategori sedang). Nilai E pada fase pra musim sebesar 0,868 dan fase vegetatif (30 HST) sebesar 0,658 (kategori tinggi), sedangkan nilai C pada fase pra musim sebesar 0,126 dan fase vegetatif (30 HST) sebesar 0,298 (kategori rendah), yang menunjukkan bahwa komunitas serangga nokturnal berada dalam kondisi yang relatif stabil dan seimbang. Secara ekologis, ditemukan 12 spesies berperan sebagai herbivor (hama), 6 spesies sebagai polinator, 5 spesies sebagai dekomposer, serta masing-masing 2 spesies sebagai parasitoid dan predator.

Kata kunci: Jagung, Serangga Nokturnal*, Light Sheet Trap*, Keanekaragaman.

ABSTRACT

DIVERSITY OF NOCTURNAL INSECTS AND THEIR ROLE IN BALANCE IN CORN PLANTS IN WAY URANG VILLAGE, KALIANDA, SOUTH LAMPUNG

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Corn (*Zea mays* L.) is an important food crop that plays a strategic role in agricultural and economic development in Indonesia. However, corn productivity is often threatened by pest attacks, especially herbivorous insects. Nocturnal insects (active at night) play an important role in agricultural ecosystems, not only as pests, but also as pollinators, predators, parasitoids, and decomposers that support ecosystem balance. This study aims to identify the types, levels of diversity, and roles of nocturnal insects in the pre-planting season and vegetative phase (30 DAP) of corn cultivation in Way Urang Village, Kalianda, South Lampung. The study was conducted from December 2025 to January 2026 using a purposive random sampling method with a light sheet trap. Data analysis was carried out using the Shannon-Wiener diversity index (H'), evenness index (E), and Simpson dominance index (C). The results of the study showed that in the pre-season phase, 40 individuals of nocturnal insects were found consisting of 5 orders, 11 families, and 15 species. Meanwhile, in the vegetative phase (30 DAP), 85 individuals were found consisting of 5 orders, 15 families, and 20 species. The Hymenoptera order (Vespidae family) was the most dominant group. The H' value in the pre-season phase was 2.350 and the vegetative phase (30 DAP) was 1.970 (medium category). The E value in the pre-season phase was 0.868 and the vegetative phase (30 DAP) was 0.658 (high category), while the C value in the pre-season phase was 0.126 and the vegetative phase (30 DAP) was 0.298 (low category), which indicates that the nocturnal insect community is in a relatively stable and balanced condition. Ecologically, 12 species were found to act as herbivores (pests), 6 species as pollinators, 5 species as decomposers, and 2 species each as parasitoids and predators.

Keywords: Corn, Nocturnal Insects, Light Sheet Trap, Diversity.