

# KEANEKARAGAMAN ARTHROPODA PREDATOR PADA LAHAN PADI SAWAH KONVENSIONAL DAN ORGANIK DI KABUPATEN PADANG PARIAMAN

## ABSTRAK

Arthropoda predator berperan penting sebagai pengendali dan menurunkan populasi hama pada ekosistem pertanian, termasuk pertanaman padi. Perbedaan sistem budidaya tanaman padi dapat mempengaruhi keanekaragaman Arthropoda predator. Penelitian dengan tujuan mempelajari keanekaragaman Arthropoda predator pada lahan padi sawah konvensional dan organik ini dilaksanakan di Kabupaten Padang Pariaman dari Maret sampai Mei 2016. Pengambilan sampel dilakukan dengan dua metode yaitu metoda mutlak (pengamatan langsung) dan metode nisbi (jaring ayun dan *pitfall trap*). Arthropoda predator yang ditemukan terdiri dari dua kelas (Insekta dan Arachnida), 6 ordo (Coleoptera, Hymenoptera, Orthoptera, Odonata, Hemiptera, dan Araneae), 15 famili, 31 spesies dan 1.373 individu. Populasi Arthropoda predator pada sawah organik lebih tinggi (806 individu) dibandingkan sawah konvensional (567 individu). Jenis Arthropoda predator yang dominan ditemukan adalah *Tetragnatha javana*, *Pardosa pseudoannulata*, *Tetragnatha* sp., *Verania lineata*, *Ophionea nigrofasciata*, dan *Paederus fucipes*. Keanekaragaman dan kemerataan spesies Arthropoda predator lebih tinggi pada sawah organik ( $H' = 2,571$ ;  $E = 0,780$ ) dibandingkan sawah konvensional ( $H' = 2,431$ ;  $E = 0,746$ ). Nilai indeks dominansi tertinggi terdapat pada sawah konvensional di Kecamatan Ulakan Tapakis (0,288) dan terendah terdapat pada sawah organik di Kecamatan Batang Anai (0,116). Kesamaan komunitas pada sawah organik dan konvensional adalah diatas 50 %.

Kata Kunci : Keanekaragaman, Arthropoda predator, padi sawah organik dan konvensional



# ARTHROPOD PREDATOR DIVERSITY IN CONVENTIONAL AND ORGANIC RICE FIELDS IN PADANG PARIAMAN REGENCY

## ABSTRACT

Arthropod predators play an important role as controller and reduce the population of pests in agricultural ecosystems, including rice fields. Differences in rice cultivation system can affect the diversity of arthropod predators. The aim of research was studying the diversity of arthropod predators in conventional and organic rice field. Research was conducted in the district of Padang Pariaman from March to May 2016. Sampling was done by two methods: absolute method (direct observation) and the relative method (sweep nets and pitfall traps). Arthropod predators were found to consist of two classes (Insect and Arachnid), 6 orders (Coleoptera, Hymenoptera, Orthoptera, Odonata, Hemiptera, and Araneae), 15 families, 31 species and 1,373 individual. Arthropods predator populations at higher in organic (806 individual) than conventional rice fields (567 individual). The dominant type of predatory arthropods found was *Tetragnatha javana*, *Pardosa pseudoannulata*, *Tetragnatha* sp., *Verania lineata*, *Ophionea nigrofasciata*, and *Paederus fucipes*. Diversity and evenness predatory arthropod species higher on organic ( $H' = 2.571$ ,  $E = 0.780$ ) compared to conventional rice fields ( $H' = 2.431$ ;  $E = 0.746$ ). Dominance index was highest in conventional rice fields in District Ulakan Tapakis (0.288) and the lowest for the organic farm in the district of Batang Anai (0.116). Community similarity in organic and conventional rice fields was above 50%.

Keywords: Diversity, Arthropod predator, organic and conventional rice field

