

## INTISARI

### EVALUASI KEEFEKTIFAN PENGENDALIAN TIKUS SAWAH DENGAN BURUNG PREDATOR *Tyto javanica javanica* DI KABUPATEN BANTUL

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Gupon burung predator jenis Burung Serak Jawa (*Tyto javanica javanica*) di Kabupaten Bantul telah dipasang sejak tahun 2016 hingga tahun 2020 untuk pengendalian tikus sawah secara hayati. Penelitian bertujuan untuk mengevaluasi keefektifan pengendalian tikus sawah menggunakan Burung Serak Jawa. Lokasi penelitian dilakukan di tiga kecamatan yaitu Kecamatan Sedayu, Kasihan dan Pandak. Metode penelitian meliputi kajian data sekunder, kajian gupon, kajian persepsi dan sikap petani. Wawancara seputar hama tikus sawah dan peran burung predator dilakukan terhadap 42 petani padi responden yang diambil secara *purposive* dan *snow ball sampling*. Struktur, kondisi fisik, dan tingkat hunian gupon diamati pada 29 unit gupon yang diambil secara acak di tiga kecamatan. Uji  $t_{\alpha 0,05}$ , anova, dan analisis regresi linier ganda, dilakukan untuk menentukan signifikansi pengaruh berbagai faktor terhadap keefektifan pengendalian tikus sawah menggunakan Burung Serak Jawa. Hasil penelitian menunjukkan bahwa luas serangan tikus sawah berkurang signifikan dari 51 ha/tahun sebelum pemasangan gupon tahun 2016 menjadi seluas 20,88 ha/tahun setelah 2016. Tingkat hunian gupon sebesar 51,72%. Suhu di dalam gupon berpengaruh dan berkorelasi negatif terhadap tingkat hunian gupon. Penurunan hasil panen padi sebagai indikator keefektifan pengendalian tikus sawah dipengaruhi signifikan oleh dan berkorelasi dengan faktor pendidikan (-), luas lahan (+), sistem pengairan (-), pergiliran tanaman (-), pemahaman tentang Burung Serak Jawa (-), dan sikap petani (+).

Kata kunci: Burung Serak Jawa, gupon, tikus sawah, padi

## ABSTRACT

### EVALUATION OF THE EFFECTIVENESS OF RICE-FIELD RAT CONTROL WITH PREDATORY BIRD *Tyto javanica javanica* IN BANTUL REGENCY

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Nest boxes for predatory bird namely the Javanese Barn Owl's (*Tyto javanica javanica*) in Bantul Regency were already installed since 2016 until 2020 to biological control of rice-field rats. Objective of the research was to evaluate effectiveness of rice-field rats' control with this Javanese Barn Owl. This study was conducted in three districts namely Sedayu, Kasihan, and Pandak. The research methods comprised of analysis of secondary data occupy rate of the nest boxes by the bird, and study on the farmers' perceptions and attitudes. Interviews about pest of rice-field rat and role of the predatory bird were conducted to 42 respondents. The respondents were rice farmer and selected with purposive and snowball sampling methods. Samples of 29 nest boxes were taken randomly in the three districts. Statistical analyses of  $t_{\alpha,0,05}$  test, anova, multiple linear regression analyses were conducted to determine the significant influence of various factors on the effectiveness of biological control. Results showed that the area wide of the rice-field rat attack decreased significantly from 51 ha/year before to 20,88 ha/year after the nest boxes installation in 2016. The occupance rate of nest boxes by the bird was 51,72%. The temperature inside the nest box affected to and correlated negatively with the nest box occupancy rate. The decrease in rice yields as an indicator of the effectiveness of rice-field rat control was significantly influenced by and correlated with educational factors (-), land area (+), irrigation system (-), crop rotation (-), understanding of Javanese Barn Owl (-), and farmers' attitudes (+).

Keywords: Eastern Barn Owl, nest box, rice-field rat, paddy