

## INTISARI

### **HABITAT DAN POTENSI PERBURUAN SERTA PENGARUHNYA TERHADAP POPULASI IMAGO *Oryctes rhinoceros* DI PERKEBUNAN KELAPA SAWIT**

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Kumbang badak (*Oryctes rhinoceros*) merupakan hama utama kelapa sawit baik pada tanaman belum menghasilkan (TBM) maupun tanaman menghasilkan (TM). Penelitian ini bertujuan untuk mengetahui kelimpahan *O. rhinoceros* pada berbagai tempat peneluran, mengevaluasi kinerja orang berburu *O. rhinoceros* dan menganalisis dampak koleksi *O. rhinoceros* di tempat perkembangbiakan terhadap hasil koleksi imago *O. rhinoceros* dengan perangkap feromon. Kajian dilakukan di Perkebunan Sawit Sei Silau PTPN III, Kabupaten Asahan, Sumatera Utara. Penelitian meliputi tiga tahap. Pertama, kajian habitat dan potensi *breeding sites* *O. rhinoceros*. Kedua, kajian kelimpahan dan struktur umur *O. rhinoceros* pada berbagai *breeding sites*. Ketiga, evaluasi kinerja orang berburu *O. rhinoceros* di perkebunan kelapa sawit. Keempat, kajian pengaruh koleksi *O. rhinoceros* di tempat perkembangbiakan terhadap hasil tangkapan imago *O. rhinoceros* menggunakan perangkap feromon. Hasil penelitian menunjukkan bahwa kelimpahan *O. rhinoceros* pada lokasi TBM relatif sama dengan TM dan keduanya signifikan lebih tinggi daripada tumpukan tandan kosong yaitu berturut-turut 1.427, 1.350 dan 565 ekor/2 jam. Komposisi stadia *O. rhinoceros* didominasi oleh instar III (54,00%) diikuti instar II (17,68%), instar I (17,34%), pupa (5,02%), imago (3,92%) dan telur (2,04%). Kemampuan koleksi kumbang badak oleh Laki-laki Remaja, Laki-laki Dewasa, Perempuan Remaja, dan Perempuan Dewasa, berturut-turut sebanyak 153,60±27,82; 179,00±39,08; 80,80±23,05; dan 214,80±46,01 ekor/2 jam. Gender tidak berpengaruh signifikan, tetapi umur berpengaruh signifikan dan interaksi antar Gender dan Umur juga berpengaruh signifikan terhadap potensi berburu kumbang badak. Kemampuan berburu *O. rhinoceros* oleh perempuan remaja signifikan paling rendah. Koleksi kumbang badak (larva, pupa dan imago) di tempat perkembangbiakan berpengaruh signifikan terhadap pengurangan jumlah imago yang tertangkap dengan perangkap feromon.

Kata kunci: *breeding site*, gender, kelapa sawit, koleksi, *Oryctes rhinoceros*

## ABSTRACT

### **HABITAT AND POTENCY OF HUNTING AND ITS EFFECT ON POPULATION OF *Oryctes rhinoceros* ADULT IN OIL PALM PLANTATION**

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*The rhinoceros beetle (*Oryctes rhinoceros*) is a major pest of oil palms on immature plants (IP) and mature plants (MP). This research aimed to determine the abundance of *O. rhinoceros* in various breeding sites, to evaluate the performance of *O. rhinoceros* hunters and to analyze the impact of *O. rhinoceros* collection at breeding sites on the collection result of *O. rhinoceros* adult with pheromone traps. The research was conducted at PTPN III Sei Silau Oil Palm Plantation, Asahan Regency, North Sumatra. The research comprised of three steps. First, study on the habitat and potency of *O. rhinoceros* breeding sites. Second, the study on abundance and age structure of *O. rhinoceros* at various breeding sites. Third, study on the evaluation of people performance to hunt *O. rhinoceros* in the oil palm plantations. Fourth, study on the effect of *O. rhinoceros* collection at breeding sites to the catch of *O. rhinoceros* adult using pheromone traps. Results showed that the abundance of *O. rhinoceros* at IP locations was relatively the same as MP and both were significantly higher than at empty fruit bunches, namely 1,427, 1,350 and 565 individuals/ 2 hours, respectively. The composition of the *O. rhinoceros* stages was dominated by 3<sup>rd</sup> instar (54.00%) followed by 2<sup>nd</sup> instar (17.68%), 1<sup>st</sup> (17.34%), pupa (5.02%), adult (3.92%) and egg (2.04%). The abilities to collect rhinoceros beetles by Adolescent Boy, Adult Men, Adolescent Girl, and Adult Women, were  $153.60 \pm 27.82$ ;  $179.00 \pm 39.08$ ;  $80.80 \pm 23.05$ ; and  $214.80 \pm 46.01$  individuals/2 hours, respectively. Gender had no significant effect, but age had a significant effect and the interaction between Gender and Age also had a significant effect on the potential for hunting rhinoceros beetles. The hunting ability of *O. rhinoceros* by adolescent girls was significantly the lowest. The collection of rhinoceros beetle (larvae, pupae and adults) in the breeding sites had a significant effect on reducing the number of adult caught with pheromone traps.*

**Keywords:** *breeding sites, collection, gender, oil palm, *Oryctes rhinoceros**