ABSTRAK

TINGKAT KEPADATAN TANAH TERHADAP PERILAKU *DUNG BEETLE* DI BLOK LINDUNG HUTAN PENDIDIKAN KONSERVASI TERPADU UNIVERSITAS LAMPUNG PADA TAHURA WAN ABDUL RACHMAN

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Dung beetle merupakan anggota kelompok *Coleoptera* dari suku *Scarabaeidae*. *Dung beetle* hidup dan berkembang di dalam kotoran satwa, perilaku *dung beetle* tersebut memiliki peran dalam menyebarkan dan penyelamatan benih. Penelitian ini bertujuan untuk mengetahui perilaku *dung beetle* terhadap kepadatan tanah dan mengetahui sifat fisik tanah pada habitat *dung beetle* di Arboretum VII, IX dan XI di Blok Lindung Hutan Pendidikan Konservasi Terpadu Universitas Lampung pada Tahura WAR. Penelitian ini telah dilakukan pada bulan Agustus-November 2020. Penelitian menggunakan metode observasi langsung dan analisis laboratorium kekerasan tanah. Hasil menunjukkan perilaku *dung beetle* ukuran besar mampu menggali tanah lebih dalam mencapai 84 mm dan membawa *feces* lebih banyak daripada *dung beetle* ukuran sedang dan kecil yaitu hanya mencapai 68 mm dan 41 mm dengan kadar air tanah 33,22% hingga 51,65%. Semakin dalam *dung beetle* menggali tanah, maka semakin banyak benih yang dibawa dan diselamatkan oleh *dung beetle*. Arboretum VII, IX dan XI memiliki kadar air rata-rata di lapangan 36,65%, 33,22% dan 42,10%, berat jenis rata-rata tanah 2,36 gr, 2,47 gr dan 2,33 gr, berat volume tanah kering rata-rata ($\gamma_{d\ rata\text{-}rata}$) sampel sebesar 1,27 gr/cm^3, 1,39 gr/cm^3 dan 1,28 gr/cm^3, persentase lolos saringan No.40 dengan diameter saringan 0,475 adalah sebesar 86,99%, 79,60% dan 83,57% serta pemadatan tanah standar didapatkan nilai kadar air optimum 20,19%, 26,96% dan 31,36%.

Kata kunci: *dung beetle*, tanah, kadar air.

ABSTRACT

THE LEVEL OF SOIL DENSITY ON THE BEHAVIOR OF DUNG BEETLE IN A FOREST PROTECTED BLOCK FOR INTEGRATED CONSERVATION EDUCATION AT THE LAMPUNG UNIVERSITY IN TAHURA WAN ABDUL RACHMAN

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Dung beetle is clasified as a group of Coleoptera and the family of Scarabaidae. Dung beetle live and thrive in animal droppings, the behavior of the dung beetle has a role in spreading and saving seeds. This research aims to determine the behavior of the dung beetle on soil density and to determine the physical properties of the soil in the habitat of the dung beetle in Arboretum VII, IX and XI in the Integrated Conservation Education Forest Protected Block, Lampung University at Tahura WAR. This research was conducted in August-November 2020. The research used direct observation and laboratory analysis of soil hardness. The results showed the behavior of large dung beetles capable of digging deeper into the soil up to 84 mm and carrying more feces than medium and small dung beetles, which only reached 68 mm and 41 mm with a soil moisture content of 33.22% to 51.65%. The deeper the dung beetle digs into the soil, the more seeds the dung beetle will carry and save. Arboretum VII, IX and XI have an average water content of 36.65%, 33.22% and 42.10%, the average density of soil is 2.36 g, 2.47 g and 2.33 g, The average dry soil volume weight (γd average) of the sample is 1.27 gr/cm^3, 1.39 gr/cm^3 and 1.28 gr/cm^3, the percentage that passes the No.40 sieve with a sieve diameter of 0.475 is 86, 99%, 79.60% and 83.57% and standard soil compaction obtained the optimum water content values of 20.19%, 26.96% and 31.36%.

Keywords: dung beetle, soil, water content.