

ABSTRAK

PENGARUH JUMLAH PENGUNJUNG TERHADAP KADAR *CORTICOSTERONE* PADA FESES BURUNG KENARI (*Serinus canaria*) YANG DIBERI SUPLEMENTASI TEPUNG CANGKANG KERANG

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Burung kenari (*Serinus canaria*) merupakan salah satu burung kicau yang banyak dipelihara secara *ex situ* dan berpotensi mengalami stres akibat fluktuasi jumlah pengunjung. Respons stres pada aves dapat diukur melalui kadar hormon *corticosterone* yang dihasilkan melalui aktivasi sumbu *hypothalamic-pituitary-adrenal* (HPA). Penelitian ini bertujuan untuk mengetahui pengaruh jumlah pengunjung terhadap kadar *corticosterone* pada feses burung kenari (*Serinus canaria*) yang diberi suplementasi tepung cangkang kerang. Sampel penelitian berupa feses empat ekor burung kenari yang dibagi menjadi dua kelompok, yaitu kelompok kontrol yang diberikan pakan standar, serta kelompok perlakuan yang diberikan pakan standar dengan penambahan suplementasi tepung cangkang kerang darah.

Sampel feses dikoleksi satu kali seminggu pada hari Minggu selama tujuh minggu dan dianalisis menggunakan metode *enzyme-linked immunosorbent assay* (ELISA) untuk mengukur kadar *corticosterone*. Pada kelompok perlakuan, *corticosterone* tertinggi yaitu $6149,47 \pm 549,05$ ng/gr sampel pada rata-rata 267 pengunjung dan terendah yaitu $3959,55 \pm 1305,55$ ng/gr sampel pada rata-rata 240 pengunjung. Pada kelompok kontrol, *corticosterone* tertinggi yaitu $5861,42$ ng/gr sampel pada rata-rata 260 pengunjung dan terendah yaitu $3454,42$ ng/gr sampel pada rata-rata 240 pengunjung. Nilai delta kelompok perlakuan terbesar yaitu $1255,2$ ng/gr, sedangkan terkecil yaitu $77,04$ ng/gr. Pada kelompok kontrol, nilai delta terbesar yaitu 1339 ng/gr, sedangkan terkecil yaitu $0,01$ ng/gr. Hasil Uji Pearson menunjukkan nilai koefisien korelasi (r) sebesar $-0,18$ dan p -value sebesar $0,950$ yang menunjukkan hubungan negatif dan tidak signifikan antara jumlah pengunjung dan kadar *corticosterone*. Kesimpulannya adalah jumlah pengunjung tidak memiliki pengaruh terhadap kadar *corticosterone* feses burung kenari serta pemberian suplementasi tepung cangkang kerang belum menunjukkan efektivitas dalam mereduksi respons fisiologis.

Kata Kunci: Burung Kenari, *Corticosterone*, ELISA, Pengunjung, Tepung Cangkang Kerang

ABSTRACT

THE EFFECT OF VISITOR NUMBERS ON FECAL CORTICOSTERONE LEVELS IN CANARIES (*Serinus canaria*) SUPPLEMENTED WITH SHELL POWDER

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The canary (*Serinus canaria*) is a songbird commonly kept in captivity and is susceptible to stress caused by fluctuations in visitor numbers. Stress responses in birds can be measured by corticosterone levels, which are produced through activation of the hypothalamic-pituitary-adrenal (HPA) axis. This study aimed to determine the effect of visitor numbers on corticosterone levels in the feces of canaries (*Serinus canaria*) supplemented with oyster shell meal. The study samples consisted of feces from four canaries divided into two groups: a control group fed a standard diet and a treatment group fed a standard diet supplemented with oyster shell meal.

Fecal samples were collected once a week on Sundays for seven weeks and analyzed using the enzyme-linked immunosorbent assay (ELISA) method to measure corticosterone levels. In the treatment group, the highest corticosterone level was 6149.47 ± 549.05 ng/g of sample from an average of 267 visitors, and the lowest was 3959.55 ± 1305.55 ng/g of sample from an average of 240 visitors. In the control group, the highest corticosterone level was 5,861.42 ng/g sample with an average of 260 visitors, and the lowest was 3,454.42 ng/g sample with an average of 240 visitors. The largest delta value in the treatment group was 1,255.2 ng/g, while the smallest was 77.04 ng/g. In the control group, the largest delta value was 1,339 ng/g, while the smallest was 0.01 ng/g. The results of the Pearson test showed a correlation coefficient (r) of -0.18 and a p -value of 0.950, indicating a negative but insignificant relationship between the number of visitors and corticosterone levels. In conclusion, the number of visitors has no effect on corticosterone levels in canary feces, and the administration of oyster shell flour supplementation has not yet shown effectiveness in reducing the physiological response.

Keywords: Canary, Corticosterone, ELISA, Shell Powder, Visitors