ABSTRAK

PERBANDINGAN KADAR HORMON *TRIIODOTHYRONINE* DAN *THYROXINE* KUDA BETINA (*Equus caballus*) DI *MINI ZOO* JOGJA EXOTARIUM

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Penelitian ini bertujuan untuk mengetahui pengaruh jumlah pengunjung (*peak season* dan *low season*) terhadap ratio kadar hormon *triiodothyronine* (T_3) dan *thyroxine* (T_4) pada feses kuda betina (*Equus caballus*) di *Mini Zoo* Jogja Exotarium. Penelitian ini menggunakan sampel feses yang dikoleksi tiga kali sehari selama satu minggu saat *low* dan *peak season.* Sampel feses dikeringbekukan selama 72 jam dan dilanjutkan dengan proses ekstraksi menggunakan methanol 80% sebelum dilakukan pengukuran kadar hormon T_3 dan T_4 menggunakan ELISA.

Hasil perhitungan ratio T_3/T_4 *low season* terendah 0,42 dengan jumlah pengunjung 2 orang dan ratio T_3/T_4 tertinggi 1,60 dengan jumlah pengunjung 7 orang. Rasio T_3/T_4 *peak season* terendah 0,51 dengan jumlah pengunjung 658 orang dan ratio T_3/T_4 tertinggi 0,69 dengan jumlah pengunjung 948 orang. Hasil penelitian didapatkan ratio T_3/T_4 tertinggi terjadi saat *low season* dengan ratio T_3/T_4 sebesar 1,60, sedangkan hasil ratio T_3/T_4 *peak season* tidak mengalami perubahan yang signifikan. Pada *low* dan *peak season*, ratio T_3/T_4 tertinggi saat siang hari dengan nilai rata-rata ratio T_3/T_4 secara berturut-turut sebesar 0,98 pada suhu 30,6^{o}C dan 0,64 pada suhu 31,1^{o}C. Hasil analis statistik menunjukkan jumlah pengunjung tidak berpengaruh signifikan ($p>0.05$) terhadap ratio kadar hormon T_3/T_4. Berdasarkan hasil penelitian dapat disimpulkan bahwa jumlah pengunjung tidak memengaruhi ratio kadar hormon T_3/T_4 kuda betina di *Mini Zoo* Jogja Exotarium baik saat *low* atau *peak season.*

Kata Kunci: ELISA, feses, kuda, *thyroxine*, *triiodothyronine*

ABSTRACT

RATIO OF TRIIODOTHYRONINE AND THYROXINE HORMONE IN MARE (Equus caballus) AT MINI ZOO JOGJA EXOTARIUM

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This study aims to determine the effect of the number of visitors (peak season and low season) on the ratio of triiodothyronine (T_3) and thyroxine (T_4) hormone levels in the feces of mares (Equus caballus) at Mini Zoo Jogja Exotarium. This study used fecal samples collected three times a day for one week during the low and peak seasons. Fecal samples were frozen for 72 hours and continued with the extraction process using 80% methanol before measuring T3 and T4 hormone levels using ELISA.

The lowest ratio of T_3/T_4 in low season is 0.42 with 2 visitors and the highest ratio of T_3/T_4 is 1.60 with 7 visitors. The lowest ratio of T_3/T_4 in peak season is 0.51 with 658 visitors and the highest ratio of T_3/T_4 is 0.69 with 948 visitors. The results showed that the highest T3/T4 ratio occurred during the low season with a T_3/T_4 ratio of 1.60. While the peak season T_3/T_4 ratio results did not experience significant changes. In the low and peak seasons, the T3/T4 ratio was highest during the day with an average T3/T4 ratio of 0.98 at 30.6oC and 0.64 at 31.1oC, respectively. The results of statistical analysis showed that the number of visitors had no significant effect ($p>0.05$) on the ratio of T3/T4 hormone levels. Based on the results of the study, it can be concluded that the number of visitors does not affect the ratio of mare T3/T4 hormone levels at Mini Zoo Jogja Exotarium either during low or peak season.

Keywords: ELISA, feces, horse, thyroxine, triiodothyronine