



University of Zabol
Graduate School
Faculty of Veterinary
Department of clinical Sciences

The Thesis Submitted for the Degree of DVM

Hematological and Biochemical Parameters of Desert Monitor
(*Varanus griseus*)

Supervisor:

Dr Mehdi Jahantigh

Advisor:

Dr. Seyyed Hadi Hashemi

By:

Fateme ghazagh

Summer 2023

Abstract:

Measuring biochemical and hematological parameters can be a valuable tool to evaluate and monitor the health of wild reptile populations. However, a major obstacle to conducting wildlife health assessments is the lack of baseline data against which new data can be compared. Without understanding species-specific (taxon-specific) variation in biochemical and blood parameters, researchers are unable to identify the potential effects of disease, injury, pollutants, or other changing environmental conditions. This issue is especially important for areas with a large number of native species that are experiencing rapid changes, such as Sistan region, so in this study, the biochemical factors and hematological parameters of the desert vulture (*Varanus griseus*) in Sistan region were investigated. Findings In the current study, the average hematological variables of Hematocrit, Lymphocytes, Heterophils, Monocytes, Eosinophils, and Basophils were respectively equal to 38.43, 72.45, 17.96, 7.31, 2.21, and 1.61 percent and standard deviation. They are 3.78, 6.32, 2.71, 2.64, 0.18, 0.11 percent. The mean \pm standard deviation of RBC and WBC were measured as 1123000 ± 127630 and 6340 ± 1937 , respectively. Also, the mean \pm standard deviation of the Hgb variable was reported as 12.62 ± 1.28 g/dL. The average biochemical variables of Total Protein, Lymphocytes, Albumin and Globulin are respectively equal to 68.5, 25.0, 43.5 g/liter and their standard deviation is 37, 1.7, 2.1 g/liter. Glucose mean \pm standard deviation was measured as 7.9 ± 0.7 mmol/liter. Also, the mean \pm standard deviation of AST variable was reported as 437 ± 65.7 international units per liter.

Key words: Keyword: parameters Biochemical – parameters Hematological - Desert Monitor.