

INVESTIGATION OF BLOOD PARAMETERS OF THE BLACK SEA DOLPHINS (*Tursiops truncatus ponticus*) KEPT AT THE LITHUANIAN SEA MUSEUM

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Abstract. The purpose of this investigation was to determine blood morphological and biochemical values of clinically healthy Black Sea dolphins (*Tursiops truncatus ponticus*) kept at the Lithuanian Sea Museum depending on their sex and age. Male dolphins were divided into groups according to their age: dolphins 2–5 years old and over 5 years old. Female dolphins were divided into three groups: 2–5 years old, over 5 years old and under two years old. In 2003–2010, the analysis of blood samples of the eight clinically healthy Black Sea dolphins showed that the average amount of leukocytes amounted to $6.9 \times 10^9/L$ and erythrocytes to $4.1 \times 10^{12}/L$, respectively. Reticulocytes accounted for 2.60%. The concentration of haemoglobin was 163.70 g/L. Packed cell volume was 43.50%. Erythrocyte sedimentation rate was 1.85 mm/h. Segmented neutrophils accounted for 45.3–57.3%, lymphocytes 13.7–33.60%, monocytes 3.20–4.80%, and eosinophiles for 15.40–21.70% of leukocytes. The urea content was 16.82 mmol/L, creatinine level 125.35 $\mu\text{mol}/L$, and glucose level 5.72 mmol/L. Activities of enzymes studied consisted of aspartate aminotransferase – 220.65 U/L, alanine aminotransferase – 38.65 U/L, gamma-glutamyl transferase – 43.80 U/L, and alkaline phosphatase – 1200.85 U/L, respectively. The level of sodium amounted to 156.48 mmol/L, potassium 3.44 mmol/L, chlorine 118.28 mmol/L, and iron 29.94 $\mu\text{mmol}/L$. The total level of proteins in blood serum was 71.39 g/L. Albumins accounted for 61.62%, α_1 globulins 5.32%, α_2 globulins 8.94%, β_1 globulins 4.80%, β_2 globulins 5.34%, χ globulins 15.37%, and fibrinogen 1.82 g/L. During growth periods, the hematopoietic dynamics of male and female animals were similar and their sex and age did not demonstrate clear or significant influence on alterations of blood parameters.

Keywords: Black Sea dolphins, blood, sex, age.