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Hemoglobin polymorphism and hematological profile of Geoffroy's side-necked turtle (*Phrynops geoffroanus*, Testudines) in the northwestern region of São Paulo State, Brazil

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ABSTRACT. Complete blood counts and hemoglobin isoform data were gathered from 36 specimens of the turtle species *Phrynops geof-*

froanus from the northwestern region of São Paulo State, Brazil. They were collected in an urban area. The hemoglobin profiles were obtained after red blood cell lysis and by electrophoretic migration in alkaline pH, acid pH, and neutral pH buffer. The hemoglobin components were confirmed using high-performance liquid chromatography (HPLC). Erythrogram analysis included hematocrit, total hemoglobin concentration, total red blood cell count, and red blood cell indices. The leukogram included a total white blood cell count and a calculation of the percent values of neutrophils, lymphocytes, monocytes, basophils, eosinophils, heterophils, and azurophils. HPLC analysis revealed three hemoglobin components; the first with a concentration of 5.5%, the second was a major component with an average concentration of 67.1%, and the third with a concentration of 28.5%. The hematological profile obtained for these specimens allowed us to establish a pattern for *P. geoffroanus* in São Paulo State Northwestern region. The average hematocrit values were 22.5% for females and 24.0% for males. For total hemoglobin, we found average values of 6.66 g/dL in females and 7.22 g/dL in males. The number of white blood cells was 2725 x 10^3/μL for females and 2775 x 10^3/μL for males. There was a predominance of heterophils, eosinophils, and monocytes in both sexes. No significant differences were found between males and females for hematological profile. The hematological results were compared to literature data for other Chelonia. They were similar to what is known for fresh water turtles.

Key words: *Phrynops geoffroanus*; Hemoglobin polymorphism; Hematological profile

