

BLOOD GLUCOSE LEVELS IN THREE SPECIES OF *AGALYCHNIS SP.*

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Abstract

In the normal animal, the homeostatic level of blood glucose is maintained by the equilibrium between glucose supply and removal, as a result of a finely balance system of hormonal interactions.¹ Reference glucose values can vary depending of the sex, weight, management and feeding systems, among others.³ Several studies have analyzed blood parameters for frogs, however, no previous studies have been found for *Agalychnis sp.* in the wild. The goal of this study was to determine blood glucose levels in three frog species commonly kept in captivity, to evaluate its health and nutritional status. Twenty seven adult frogs (n=17 *A. callidryas*, n=5 *A. spurrelli* and n=5 *A. annae*) were collected from the wild. Morphometric measurements were taken (weight and length). Then the animals were anesthetized using a solution of isoflurane, with a dose of 0.03 ml/g of body weight, and blood samples were obtained from heart puncture. Glucose was determined using a portable Multicare in® kit. Glucose levels were 51.88, 47.60 and 54.33 mg/dl for *A. callidryas*, *A. spurrelli* and *A. annae* respectively. These values are similar to those found in *Rana catesbeiana*.^{2,3} Significant differences were found in *A. spurrelli* compared to the other species. Weights and lengths were 5.89, 6.98 and 6.46 g and 50.55, 53.77 and 58.00 mm for *A. callidryas*, *A. spurrelli* and *A. annae*. The study still continues determining other blood parameters used to evaluate nutritional status in *Agalychnis* frogs, and information will be used further to compare animal status in captivity.

Literature cited

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