

Growth performance of the Snail *Archachatina ventricosa* in Urban Secondary Forest: The National Center of Floristics (NCF) of Abidjan, Côte d'Ivoire

Kouassi Jerome N'DRI^{1,3*}, Sidiki SANGARE², Kouadio Eugene KONAN¹.

¹Laboratory of Animal Biology and Cytology, UFR Sciences de la Nature, Nangui ABROGOUA University, Abidjan-Côte d'Ivoire

²Laboratory of Biology and Health, UFR Biosciences, Félix HOUPHOUET-BOIGNY University, Abidjan-Côte d'Ivoire

³Laboratory for Terrestrial Environment Study, Ecology Research Center, Abidjan-Côte d'Ivoire

*Corresponding Author: jeromekasb@yahoo.fr

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1 ABSTRACT

This study investigates the growth dynamics of *Archachatina ventricosa*, a terrestrial mollusk prevalent in West Africa, particularly in Côte d'Ivoire. Previous research indicates that environmental factors significantly influence its growth, making this study essential for understanding its biology within the unique climatic conditions of the NCF. Conducted from January 2017 to December 2018, the research utilized a capture-mark-recapture method to evaluate growth rates in juvenile snails with shell lengths under 4.5 cm. The study area, characterized by distinct rainy and dry seasons, facilitated a comprehensive assessment of the snails' growth in relation to environmental variations. The findings reveal an average recapture rate of 15.59%, with higher rates during dry seasons compared to rainy ones. Growth measurements indicated an increase in average shell length from 3.91 cm to 10.54 cm over two years, with significant growth occurring in the first year. The study also noted variations in growth rates, influenced by seasonal changes and food availability. The research highlights the importance of environmental factors on the growth of *Archachatina ventricosa*, suggesting that habitat management is crucial for their conservation. The results of this study are valuable because they constitute a scientific database allowing the breeding of this snail.