

# Chemical adjustments during aestivation by the giant African land snails, *Archachatina marginata* and *Achatina achatina*

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## ABSTRACT

The effects of duration (0, 2, 4 and 6 weeks) of dormancy of two species of giant African land snails on the chemical adjustment to aestivation were determined in groups of matured snails. The results indicate that the overall % CP content of *A. marginata* was  $53.48 \pm 1.82$  % which was not significantly ( $P > 0.05$ ) higher than that of *A. achatina* ( $49.50 \pm 2.03$  %). Duration of aestivation did not have any significant ( $P > 0.05$ ) change in the CP in both species. Analysis indicates that both species maintained constancy of fat (lipid) over a measured period of first 4 weeks. Compared to control, the % EE was significantly lower ( $P < 0.05$ ) in snails that aestivated for 6 weeks. While the % EE of *A. marginata* decreased by 39.9 % of the awake snails in 6 weeks, *A. achatina* only retained 52.6 % of the original EE of the awake snails after 6 weeks of dormancy. The ash and the NFE were not significantly affected ( $P > 0.05$ ) by species and duration of aestivation except for crude fibre that declined ( $P < 0.01$ ) with duration of aestivation.

## Keywords:

Chemical adjustments, Dehydration, Starvation, Giant African land snails; *Archachatina marginata*, *Achatina achatina*.