



Chemical composition of the flesh and mucus of land snail species (*Archachatina marginata* (Swainson), *Archachatina marginata* (Suturalis), *Achatina fulica*, *Achatina iostoma*, *Limicolaria spp*) in Gabon: Case of the Haut-Ogooué Province

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Submitted on 3rd September 2021. Published online at www.m.elewa.org/journals/ on 30th November 2021
<https://doi.org/10.35759/JABs.167.9>

ABSTRACT

Objective: The objective of this study was to contribute in the improvement of knowledge on protein sources entering in animal feeding. It was conducted with the aim to determine the chemical composition of the flesh of the snails (*Archachatina marginata* (Swainson), *Archachatina marginata* (Suturalis), *Achatina fulica*, *Achatina iostoma*, *Limicolaria spp*).

Methodology and results: A sample of 60 snails, considering the different species, were slaughtered and the proportions of the mucus, flesh, visceral organs and shell were determined as well as the chemical composition of the flesh and mucus. It emerges that the species identified were *Achatina fulica*, *Achatina iostoma*, *Limicolaria spp*, *Archachatina marginata* (Swainson) and *Archachatina marginata* (Suturalis). The proportions of flesh and shell were respectively 24.90 and 14.88 in *Achatina fulica*; 29.98 and 15.69 in *Archachatina marginata*; 25.40 and 15.80 in *Achatina iostoma* and 44.84 and 17.47 in *Limicolaria spp*. The rates of proteins and fats contained in the mucus were respectively 41.61 and 1.87 in *Achatina fulica*; 44.58 and 1.26 in *Archachatina marginata* (Swainson); 45.21 and 1.03 in *Archachatina marginata* (Suturalis); 42.83 and 4.11 in *Achatina iostoma* and 41.96 and 4.00 in *Limicolaria spp*. Moreover, rates of proteins, fats and ash were respectively 58.34, 0.9 and 3.06 in *Achatina fulica* ; 53.6, 1.15 and 1.56 in *Archachatina*

marginata (Swainson); 72.70, 2.63 and 3.31 in *Archachatina marginata* (Suturalis); 54.36, 2.38 and 1.37 in *Achatina iostoma* and 79.68, 2.37 and 4.68 in *Limicolaria spp*.

Conclusion and application of results : In view of the results, in addition to the two major genera of snails of interest in Heliciculture (*Archachatina* and *Achatina*), having protein levels varying from 53.6 to 72.70%, the genus *Limicolaria* can be used in animal feeding as source of proteins (79.68%).

Keywords: Snails, identification, proportion, flesh, mucus, chemical composition.