

The edible caterpillar “Mikombidila”, one of the caterpillars consumed in the west of the Democratic Republic of Congo : Description, life cycle and breeding

Numbi Muya G. ^{1,2*}, Caparros Megido R. ¹, Francis F. ¹ & Kambashi Mutiaka B. ²

¹Université de Liège/Gembloux Agro-Bio Tech, Gembloux, Passage des déportés 2, 5030, Belgium, r.caparros@uliege.be

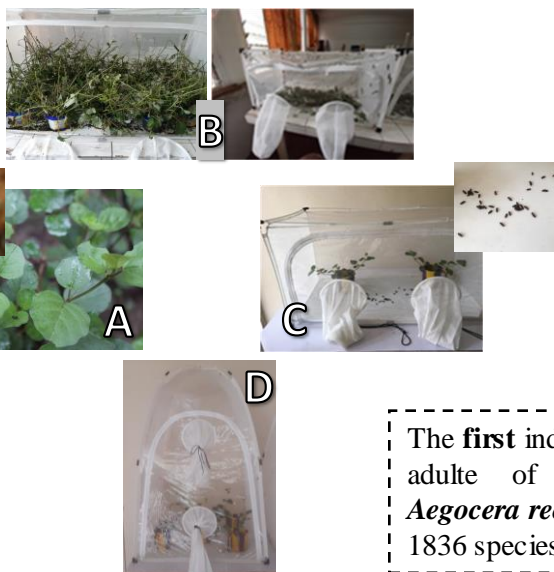
²Université de Kinshasa, route de Kimwenza N°01, Commune de Lemba, Democratic Republic of Congo, bkambashi@gmail.com

*Contact : gmmuya@doct.uliege.be

INTRODUCTION

Caterpillar consumption is part of the eating habits of the majority of the population in the DRC. The Mikombidila caterpillar, is one of the species consumed in the west of the country, but whose biology is unknown. The aim of our study is to achieve the breeding of this edible caterpillar through the control of its biological parameters.

MATERIALS AND METHOD



The first identification of the adulte of this cartepillar, *Aegocera rectilinea* Boisduval 1836 species

RESULTS AND DISCUSSION

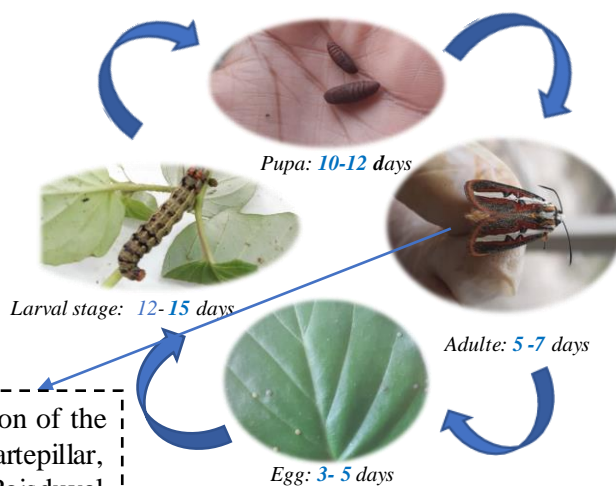


Figure 1. Life cycle of « Mikombidila » (Duration of each step)

A: Harvesting caterpillars in their natural environment on the host plant *Boerhavia diffusa*; **B:** Alimentation and Monitoring of larval growth under laboratory conditions (T° : 27,6 °C; RH: 80,7%); **C:** Monitoring of pupae evolution; **D:** Breeding cage: mating, egg-laying and hatching of young larvae and identification of adulte male and female of mikombidila.

The results obtained on the life cycle of the Mikombidila caterpillar reveal that it is a multivoltine species. This makes it an easily domesticated species. The complete cycle lasts about 30 days. This distinguishes it from the well-known edible caterpillar species *Cirina fonda* (Westwood, 1849) Westwood, 1849, which is a monovoltine species with a life cycle of about 357 days. ^{1,2}

CONCLUSION

The successful domestication of the Mikombidila edible caterpillar in a controlled environment and the advantages linked to its short development cycle and the availability of its host plant are a guarantee of its rearing and the sustainable production of animal proteins for the local population of western DRC.

REFERENCES

- Odeyemi, M. O., Fasoranti, J. O., Ande, A. T., & Olayemi, I. K. (2013). Influence of gamma irradiation on productivity indices of the edible Emperor moth caterpillar, *Cirina fonda* (Lepidoptera: Saturniidae). *Pakistan Journal of Biological Sciences: Pjbs*, 16(15), 735-738
- Cloutier, J. (2015). Insectes comestibles en Afrique: introduction à la collecte, au mode de préparation et à la consommation des insectes.