



Some bio-ecological aspects of *Haplozana nigrolineata* Aurivillius (Lepidoptera; Notodontidae): an edible insect in the Republic of Congo

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1 SUMMARY

Called "Batsini or Atsiere" in the Téké language and "Bitsina" in the Lari language, *Haplozana nigrolineata* is a protein-rich insect, consumed in its larval stage. It is of considerable socio-economic interest in the Republic of Congo. The aim of this study was to determine the insect's development cycle and ecology with in view of its domestication. In the Odziba area, near Brazzaville, ovipositing female imagos were spotted on the underside of the leaves of *Eriosema glomeratum* and *Eriosema psoraleoides* plants. For 19 days, the eggs were counted and monitored regularly until they hatched. After hatching, the larval development of the neonates was monitored in semi-captivity before the caterpillars buried themselves to pupate. In order to determine the other host plants of *H. nigrolineata*, 100 m² plots were delimited and a floristic inventory was carried out. Oviposition took place only on the leaves of *Eriosema glomeratum* and *Eriosema psoraleoides* plants. A female laid an average of 343±63.68 eggs with a hatching rate of 85.33%. The average incubation period was 19 days. Larval development lasts 58.48 days, with a long hypogeal phase lasting around 10 months. After the 3rd moult, the caterpillars leave the feeder legumes to migrate to grasses. In terms of other host plants, 16 families and 41 species have been identified in dicotyledons, compared with 8 families and 26 species in monocotyledons. This knowledge of the bioecology of *H. nigrolineata* will enable it to be conserved for sustainable use of the resource and facilitate its domestication.