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## Community Perceptions, Practices and Knowledge of Insects for Food in Kenya: A Case of Saturniidae

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### Abstract

Edible insects form a natural and renewable source of food with about 1,900 insect species being eaten worldwide by over 2 billion people. Over 60 % of edible insects in Africa belong to the order Lepidoptera, including saturniids. Despite consumption of saturniids in Kenya, documented information on the extent of consumption, perception and knowledge among communities in Kenya are lacking which is the focus of this study. It was carried out in 11 counties in Kenya, namely: Homabay, Siaya, Kakamega, Vihiga, Kitale, Kilifi, Kwale, Machakos, Kitui, Nyeri and Nakuru. Semi-structured questionnaires were used to collect information from communities on knowledge, availability, consumption and potential for rearing of saturniids for sale and local consumption. Based on the feedbacks, we recorded the availability of seven saturniid species including *Gonimbrasia zambesina*, *Naudarelia krucki*, *Bunaea alcinoe*, *Holocrina angulata*, *Imbrasia belina*, *Cirina forda* and *Epiphora bauhiniiae*. Among the respondents, more than 87 % indicated that they have collected insects for food. Termites, grasshoppers, crickets, compost grubs, saturniids and lake flies were collected by 83, 37, 14, 6, 4 and 3 % of the respondents, respectively. The Giriama people in Kilifi, coastal Kenya, were found to consume *G. zambesina* and *N. krucki*. In Kakamega, western Kenya, respondents >75 years of age indicated that they used to consume saturniids, while younger respondents refused to consume saturniids. However, more than 58 % of the respondents expressed interested in mass rearing of saturniids for business to regions where they are already consumed. Some respondents were ready to taste saturniids if processed and packaged. Lack of rearing protocols, ready markets and community acceptance were perceived as challenges by 88, 74 and 14 % of respondents, respectively. The main motivation for respondents to rear saturniids was to generate income. Enhanced awareness on the nutritional benefits of consuming saturniids, feasibility of mass rearing and opportunities for trade will be critical to mainstream saturniids among the edible insects in Kenya.

**Keywords:** Edible insects, mass rearing, saturniids