[Conference Report]

An exploration study of entomophagy in North-Western Ghana for alternative and sustainable protein supply

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ABSTRACT

Objectives

Our goal is to improve household protein intake and to secure protein supply for especially children in Ghana. So, we are supporting the domestication of a large rodent called "grasscutter" in the Upper West region of Ghana. To look for alternative, relatively cheap and readily available sources of protein, we conducted a survey to identify types of insects eaten, determine the factors that influence entomophagy and identify negative impressions toward entomophagy.

Methods

A cross-sectional survey was conducted using a semi-structured questionnaire administered purposively to adults in the region. 802 adults were interviewed personally using KoboToolbox collect software and 783 valid responses were obtained after data cleaning.

Results

The results showed that six different insects (winged termites, shea tree caterpillars, palm weevil, locust, crickets, bee larvae) and one arachnid were eaten in the region. The mean age was 35.81. On a seven-point Likert scale rating, 'convenience of eating insects', 'insects are natural foods', 'my culture accepts edible insects', 'experience of eating insects', 'insects contain higher nutrients', 'insect food has medicinal properties' and 'it is pleasurable eating insects' were the factors that influence entomophagy. A binary logistic regression of socio-economic variables on acceptance of insects as food showed that age and gender were significant (p < 0.05) determinants for accepting insects as food. Major negative impressions were 'insect food is strange to eat', 'insect food is for the poor' and 'insect food is poisonous'.

Conclusion

The study provided useful information on entomophagy in the Upper West Region of Ghana that would assist government, researchers and Non-governmental Organizations who want to invest in projects on entomophagy in an effort to help address Sustainable Development Goals (SDGs): 1. No poverty, 2. Zero hunger and 3. Good health and well-being.

Key words: Insects; Entomophagy; Ghana