

*Oriolowo, O. B., John, O. J. and Haruna S.- Department of Biology, Federal College of Education P.M.B 39 Kontagora, Niger State, Nigeria

Introduction

The practice of human feeding on insects or entomophagy is common in Africa, Asia and South-America. In Africa, over 524 species of insects have reported to be consumed by humans (van Huis, 2003). The practice is an integral part of the peoples' cultural heritage and it being transmitted from one generation to the other among many tribes in Nigeria (Adegbola et al., 2013). People feed on insects not only because of their balanced nutritional contents, but because of tradition, fashion or culture (sociology) because every human diet carries a symbolic significance alongside its bundles of nutrients (Vane-wright, 1991; Chang et al., 2010). Thus in many culture in Nigeria, insects food are highly prized and much sought after not only to just ward off starvation (Agbidye et al, 2009).

Food socialization, entomophagy inclusive begins from birth and continues throughout life as it is being modified to a certain degree by school, peer group, religion, mass-media etc. This therefore suggests the possibility of a decline or shift in certain food intake such as insects among various human populations (Yen,

Methodology

The research was a descriptive survey which employed the use of questionnaire to elucidate responses from one hundred (100) biology students on their entomophagy status and how insect could alleviate the challenge of food insecurity.

Moreover comparative nutritional analysis was carried out on some commonly consumed insects and some common conventional animal protein sources.

Data collected were analyzed using descriptive statistics of percentages, pie charts and bar chart in order to answer the research questions

Results

Table 1: summary of responses to entomophagy and food security questions

ITEM	Yes (%)	No (%)	Not sure
1 There is extreme poverty in Nigeria	89	10	1
2 The cost of food has increased in the last 5years	86	12	2
3 Nigeria finds it difficult to produce sufficient food	58	41	1
4 There is a general inadequate animal protein in our diet	73	22	5
5 Insect food could be an alternative to animal protein	79	20	1
6 There is high cost of animal protein	88	12	0
7 Many children are suffering from malnutrition	91	09	0
8 Infant mortality could be a result from malnutrition	87	10	3
9 Humans can obtain many nutrients food insect food	79	17	4
10 Insect food can supplement high cost of animal protein	73	22	5
11 Insect sale could be a good source of family income	69	26	5
12 Government should encourage the eaten of insects	53	31	16

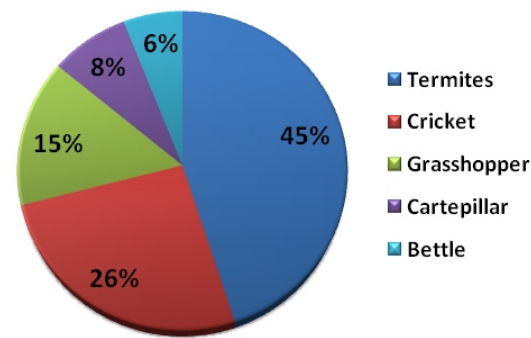


Fig 1: Types of insect consumed

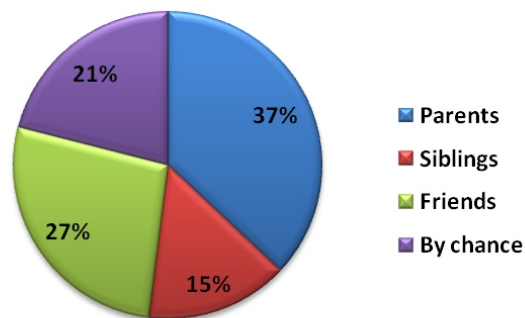


Fig 2: Introduction to entomophagy

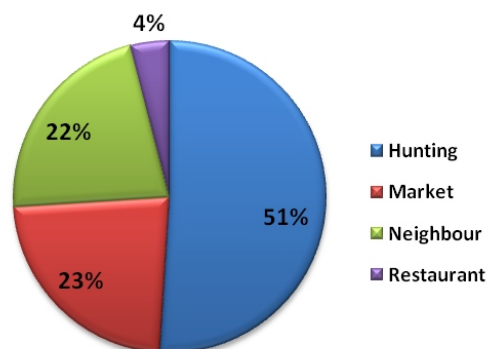


Fig 3: Sources of insect

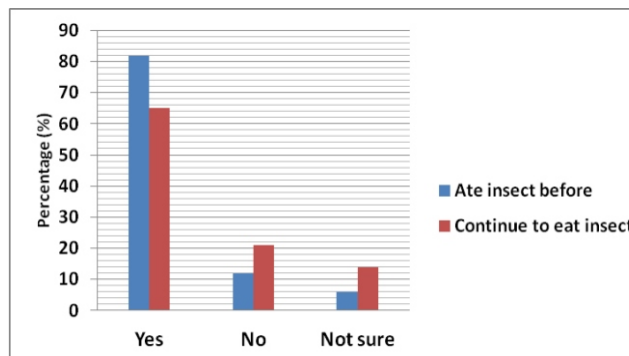


Fig 4: Responses to eating of insect

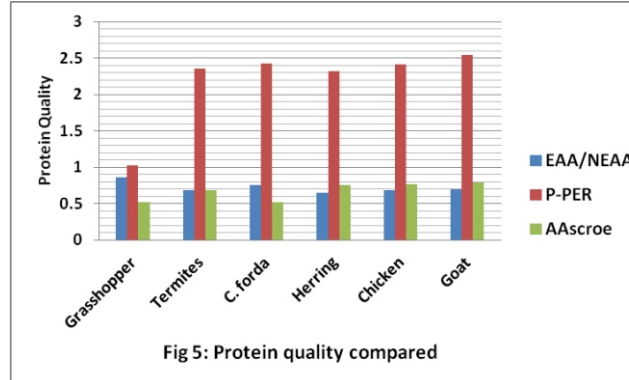


Fig 5: Protein quality compared

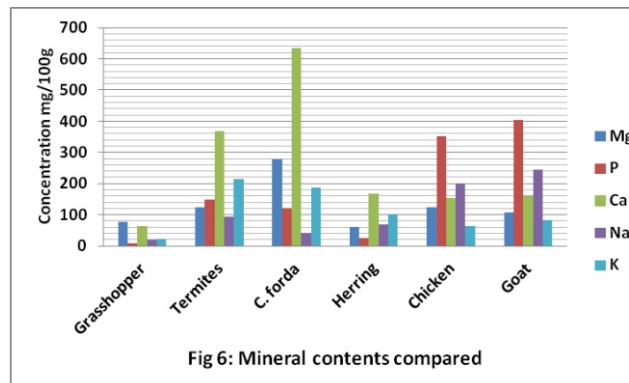


Fig 6: Mineral contents compared

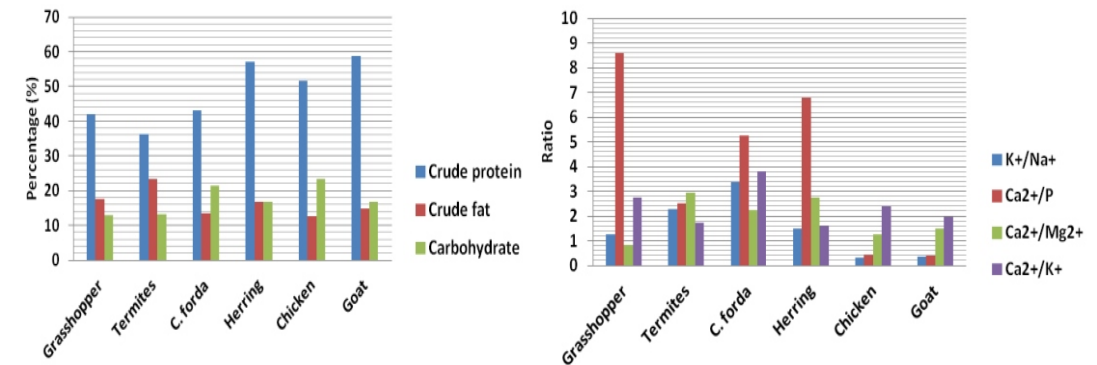


Fig 7: Macro nutrients comparison

Fig 8: Mineral ratio compared

CONCLUSION

- Entomophagy has cultural heritage among different tribes in Nigeria and is an acceptable practice, it cuts across every social strata and is practiced among both major religions.
- Insects compared favourably with other conventional animal protein in term of nutrient contents.
- However, there is a gradual decline in the practice of entomophagy among students which may be attributed to the influence of western culture.

RECOMMENDATION

- This study therefore recommended intensification of research and enlightenment on the usefulness of entomophagy so as to preserve its cultural heritage as well as boost in human food security.
- People should be encouraged to rear insects for sale in order to

REFERENCES

Adegbola, A. J., Awagu, F. E., Arowora, K., Oluekaiye, O. & Kashetu, Q. R. (2013). A panacea for protein-deficiency malnutrition and food insecurity in Nigeria. *Journal of Agriculture Science*. 5(6): 25-31

Agbidye, F. S., Ofuya, T. I. & Akindelele, S. O. (2009). Some edible insects species consumed by the people of Benue State, Nigeria. *Pakistan Journal of Nutrition*. 8(7): 946-950

Chang, R. C. Y., Kivela, J., & Mak, A. H. N. (2010). Food preferences of Chinese tourists. *Annals of Tourism Research*, 37(4): 989-1011.

Van Huis, A. (2003). Insects as food in sub-Saharan Africa. *Insect Science and its Application*, 23(3): 163-185.

Vane-Wright R.I (1991). Why Not Eat Insects? *Bulletin of Entomological Research*. 81: 1-4

Yen, A. L. (2009): Entomophagy and insect conservation: Some thoughts for digestion. *J. Insect Conserv.*, 13(6): 667-670.