

ETHNO-ZOOLOGICAL KNOWLEDGE AND PERCEPTION OF THE VALUE OF INSECTS AMONG THE IJEBUS (SOUTH WESTERN NIGERIA)

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(Received 2 Dec. 2002; Revision accepted 29 July 2003)

ABSTRACT

An ethnozoological survey of insects among Ijebu people of Ogun State was carried out to examine the importance of insects and their by-products in the life and economy of the people. 260 questionnaires were administered among the rural based traditionalist and farmers majorly who fell between the age of 56 and above.

75% of the people confirmed the nutritive value of *Macrotermes nigeriense* while 70.4% reported the consumption of *Anaphae sp* as food items, 82.3% and 90% of the people confirmed the nutritional importance of *Macrotermes belliscossus* and *Anaphae sp* respectively. Other insects consumed for nutritional purposes are *Mallodon downesi*, Pupae of scarabaedae beetles and *Brachytrypes sp* despite certain taboos attached to the utilization of *Brachytrypes sp*; *Macrotermes nigeriense* and *Anapleptes trifaciata* equally, *Apis mellifera*; *Anapleptes trifaciata*; *Brachytrypes sp*; *Macrotermes nigeriense*; *Camponotini brutus* and *Cryptothelia rougeoti* are useful items for ritual purposes; while *Periplaneta americana*; *Macrotermes nigeriense*; *camponotini brutus*; *Brachytrypes sp*; & *Musca domestica* are essential materials for healing wounds, curing of ailments, spiritual protection, preparation of aphrodisiac for women and potency medicine for males.

KEY WORDS : Ethnozoological, Insects, Nutritive value, Ritual, Nigeria.

INTRODUCTION

The concept of ethnobiology with its two broad branches (ethnobotany and ethnozoology) has continued to gain people's attention and acceptance in the field of science. Plants and animals parts have been recognized as very important ingredients for nutritional, traditional and medicinal purposes among local people. (Adekoya 1983)

Some domestic and wild animals are being consumed for various purposes such as food or as materials for the preparation of preventive and curative medicines, fertility medicine for women, aphrodisiac and potency medicine for men, appeasing and invoking spirits and traditional gods, cultural or ritual purpose and for the other conditions (Sodeinde and Soewu, 1996). Moreover, arthropods most especially insects have also been noted to have constituted a considerable proportion among the animals locally utilized for nutritional medicinal and socio-cultural purposes.

A number of insects or their products were used as food in some large parts or tribes in Nigeria and are to a large extent being eaten as tit-bits or

exclusively by children (Ene, 1962). Most of the insects utilized for nutritional purposes are those which can be collected in large quantity/number such as locust (*Locusta migratoria*) in the gregarious phase. Others are the emerging alate termites (*Macrotermes nigeriense*) Caterpillars and the large African Cricket (*Brachytrypes sp*). Those eaten occasionally and which are sometimes referred to as delicacies are the fatty grubs such as the enormously distended queen termites and the larvae and pupae of Scarabacid beetles and African silkworm (*Anaphe sp*). Equally, the adult of variegated grasshopper (*Zonocerus variegates*) are consumed by people who are from the Eastern part of Nigeria (Nwachukwu, personal communications).

This research work is therefore basically geared towards two prominent purposes.

These are

- Finding the extent of medicinal and ritual values of insects among the Ijebus
- Examining some insects that are taboos for eating in some areas in Ijebu.

MATERIALS AND METHOD

A survey was carried out in which 260

questionnaires were administered to gather information from the traditionalists, farmers and those that trade on the insects.

The surveyed area was Ijebu land in Ogun State comprising of Ijebu North Local Government and Ijebu-North East Local Government areas; Ogun State Waterside Local Government; and Ijebu-Ode Local Government areas.

Some of the areas villages visited among others were

- Irewon, Iloti, Molipa, Irawo in Ijebu-Ode Local Government Area.
- Ita-Otu; Lagade, Ilusin, Abigi, Ita-Ogun and Efire in Ogun Waterside Local Government Area.
- Odosenlu, Erunwon, Ogbogbo, Iworo, Ita-Marun in Ijebu North East Local Government Area.
- Oru, Ago-Iwoye, Atikori, Oke-Agbo, Mamu, Awa, Ilaporu and Ojow in Ijebu North Local Government Area.

All the insect specimen examined were collected and prepared for identification.

The identification of the insects was done at the Cocoa Research Institute of Nigeria (CRIN) in the Entomology Unit.

RESULTS

The Socio-economic characteristic of the people interviewed

Table 1: Show the Socio-economic characteristics

Table 1: The Socio—economic characteristics of the people interviewed

Characteristics	F (N = 260)	%
AGE		
15 – 25	4	1.53
26 – 35	24	9.18
36 – 45	16	6.12
46 – 55	36	13.8
56 and Above	180	68.9
MARITAL STATUS		
Single	8	3.06
Married	236	90.3
Divorced	8	3.06
Separated	8	3.06
Widow	-	-
SEX		
Male	220	84.2
Female	40	15.3
RELIGION		
Christianity	168	64.3
Islam	88	33.7
Traditionalists	4	15.3
EDUCATION		
Formal	100	38.8
Primary	108	41.3
Secondary	32	12.2
Tertiary	20	7.7

of the interviewed farmers traditionalists on the usage of insect for medicinal, nutritional and ritual purposes.

Most of the people interviewed fell within the age bracket of 56 and above (68.9%), majority of them are married (90.3%), they are mostly male (84.2%), and majority Christians (64.3%).

Most of them only attained primary education (41.3%) while few of them acquired secondary & tertiary education (12.2% and 7.7% respectively of all the people interviewed.

Edible Insects

Table 2: shows that certain insects like Queen termite (*Macrotermes nigriense*), alate termites (*Macrotermes bellicosus*), Ipe (*Anapleptes trifaciata*), the *Brachytrypes sp* and (silkworm)*Anaphe sp* are the most commonly eaten insects, while the *Mallodon downesii* and the pupae and adult of *Scarabaedae sp* are the least consumed for nutritional purpose among the people respectively.(figure 1)

Reasons For Eating Insects

Table 3: Shows that there are four main reasons given for eating these locally available insects. These reasons include their sweetness or delicacy, historical reasons are the primary considerations (41.3%).

Processing of Insects Before Eating

Table 4: Shows the local methods for process

Table 2: The edible insect among the people interviewed

Insects	(N = 260)	%
<i>Macrotermes nigriense</i> (Queen termite)	196	75.5
<i>Brachytypes sp</i> (Cricket)	236	90.3
<i>Anaphe sp</i> (silkworm)	188	71.9
<i>Anapleptes trifaciata</i> (Ipe)	236	90.3
<i>Macrotermes bellicosus</i> (Alate termite)	176	83.2
<i>Mallodon downesii</i> (Beetle)	64	24.5
<i>Scarabaeidae sp</i> (pupae)	40	15.3
<i>Scarabaeidae sp</i> (adult)	12	4.59

Table 3: Reason for Eating Insect

Reasons for Eating Insects	F (N = 260)	%
Sweetness	72	27.5
Vitamins	60	23.3
Historical Reasons	108	41.3
Meat supplement	16	0.06

Table 4: The Processing Method before Consumption

Processing Methods	F (N = 260)	%
Roasting	240	91.8
Frying	184	70.4
Boiling	64	24.5
Smoking	80	30.6

the insects before consumption. These are roasting, frying boiling and smoking, majority of the people claimed they prefer the roasting methods. Only few people preferred the boiling and smoking methods.

Taboo Associated With Some Insect, Eaten

94.9% of the people confirmed the existence of taboos associated with the eating of the insects. Only three insects have Taboos attached to their consumption as food items.

Brachytypes sp is forbidden for blacksmiths or people from the blacksmith lineage.

The grievous consequence of this according to the interviewed people is professional failure arising from sudden breakage metals and irons used in the blacksmith work.

Also, this nocturnal Cricket (*Brachytypes sp*) is

prohibited for eating among the male children in Ogun Waterside Local Government because it encourages impotence in male adults. The enormously distended queen termites (*Macrotermes nigriense*) can be swallowed raw but with special care to avoid the human teeth touching it. The negligence of this is likely to pose serious danger to the health of erring persons. This was confirmed by the people in all the four Local Government Areas visited. Beside, this is Irewon, a town in Ijebu North Local Government Area, the convenient made by the ancestors of this town has made the insect Ipe (*Anapleptes trifaciata*) a forbidden food for people in the town till date.

Rearing of Insects

Insect; like *Apis mellifera* (honey bee); *Anapleptes trifaciata* (ipe) and *Anaphe sp* (silkworm) are those reared among the Ijebu people. This is confirmed by 45.9% of the people.

Insect Used For Rituals

Table 5: Shows that insects like *Macrotermes nigriense* (Queen termites); *Camponotini brutus* (giant soldier ant); *Anapleptes trifaciata*(ipe); *Brachytypes sp* (Crickets) are commonly used for ritual purposes among the Ijebu people. For example, *Apis mellifera* is used for coronation, chieftaincy, wedding and child naming rituals in Ijebu-Ode local government areas, Ogun Waterside local government areas and Ijebu North Local Government areas, while *Anapleptes trifaciata* is also used for coronation rituals in Ijebu-Ode local government areas and Ijebu-North East Local Government areas.

Insects Used For Treating Ailments

Tables 6: Shows the insects used for the traditional treatment of ailment which include; *Macrotermes nigriense* (Queen termite) *Camponotini brutus* (Giant Soldiers ant);

Table 5: Insects used for rituals

INSECTS	PURPOSES
<i>Apis mellifera</i>	Coronation, chieftaincy, wedding and naming ceremonies.
<i>Anapleptes trifaciata</i>	Coronation rituals
<i>Brachytypes sp</i>	Coronation and money rituals
<i>Macrotermes nigriense</i>	Appealing to gods and witches
<i>Cryptothelia rougeote</i>	For rituals against enemies
<i>Camponotini brutus</i>	For rituals against enemies

Table 6: Insect for treating Ailments and Allied Problems.

INSECTS	TYPES OF AILMENTS AND ALLIED PROBLEMS
<i>Macrotermes nigriense</i>	Protection, Appealing to Witches and Promotion
<i>Camponotini brutus</i>	Business, success, Ear defect, Pregancy (Anti-natal) prosperity, eye defect.
<i>Periplanata americana</i>	Healing wounds, kleptomaniac trait, Ear defects.
<i>Brachytypes sp</i>	Healing wound, Prenatal Care Infants development, Appealing to witches, mental development
<i>Musca domestica</i>	Eye defect, Weight gain, infant fever, spiritual protection, prosperity, anti-infection

Periplanata americana (cockroaches); *Musca domestica* (Housefly)

Macrotermes nigriense is used for spiritual protection against witches and wizards in Ogun Waterside local government areas, and Ijebu North East Local Government areas while in Ijebu North Local Government areas is used for appealing to witches in Ijebu North Local Government areas and for the preparation of medicinal concoction to aid promotion and progress *Macrotermes nigriense* are also utilized for healing of wounds in Ijebu North East Local Government areas.

Camponotini brutus is traditionally consumed in preparing business success concoction in Ijebu North East Local Government areas.

It is used for curing ear defect, in Ogun Waterside and Ijebu North Local Government Areas. Also in Ogun Waterside Local Government, it is used in preparing pregnancy concoction and prosperities medicine, while in Ijebu North Local Government areas it is employed for the treatment of eye defects.

Periplanata americana is utilized for healing fresh wounds in the entire four local government areas. However, while it is employed for the treatment of

ear defects in Ijebu-North east local government areas and Ijebu North Local Government areas, it is also utilized for suppressing an uncontrollable trait for stealing among our children (Kleptomaniac in Ijebu-ode Local Government areas)

The *Bracytypes sp* are used for promoting mental development and pre-natal care purpose in Ijebu North East Local Government areas. In Ijebu North Local Government areas they are used for accelerating child development while in Ijebu-Ode local government areas and they are employed for appealing to witches of all the insects utilized for traditional medicinal purposes among the Ijebus. The *Musca domestica* (Housefly) is being used for preparing eye defects antidotes in all the four Local Government Areas. Also, in Ijebu-North East Local Government, *Musca domestica* is employed to encourage weight gain, and for spiritual protection and prosperity. In Ijebu North Local Government areas is also used for the treatment of infant fever and weight loss, while in Ogun Waterside Local Government, it is used for the preparation of prosperity medicine. *Musca domestica* is also used to confers immunity (when mixed with eyebrows and applied to the eyelids) against

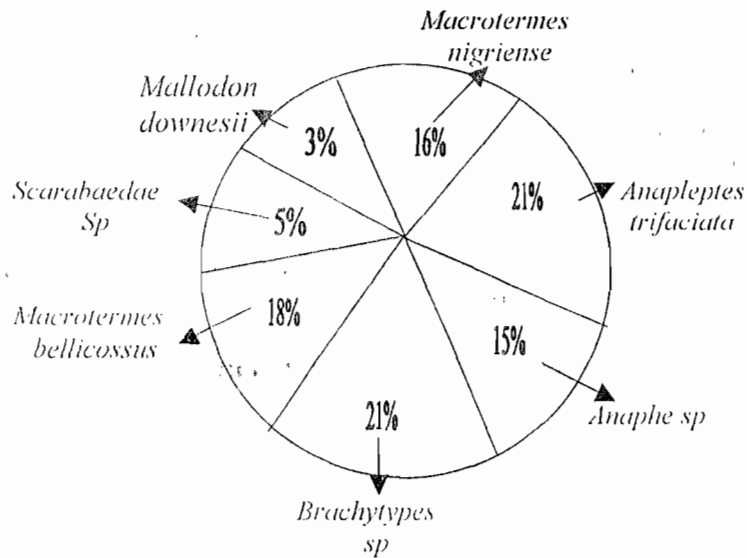


Fig 1: Levels at which the insect are consumed

infectious diseases in Ijebu-North Local Government areas.

DISCUSSION

According to Gbile (1985), the daily encounter between man and his surrounding plants and animals from the regime of the early man has made him to adopt general and particular ways of utilizing plants and animal in his environment for medicinal, nutritional and other socio-economic purposes. This was confirmed by the findings made during this research work. Local farmers and traditionalists interviewed even went further by buttressing the specific uses of living organisms most especially animal for their survival. For instance, not less than 75% of the people confirmed that insects like Queen termites *Macrotermes nigriense* silkworm (*Anaphe sp*); Cricket (*Brachytypes sp*); Alate termite (*Macrotermes bellicosus*) Beetle (*Mallodon downesii*) and Ipe (*Anapleptes trifaciata*) are consumed as food item in Ijebu-Land. This ultimately validates the opinion registered in previous literature by scientists who reported the consumption of animals generally as food items. (Ene 1962, Afolayan 1980, Sodeinde and Adedipe 1994, and Brautigam et al, 1994)

The reasons given by the farmers and traditionalists interviewed for consuming insect as food vary from one person to another and from place to place. While some opined that insect consumption is basically anchored on the sweetness or delicacy of the insect, other were of the opinion that some of the insects consumed contain vitamins and proteins and are usually used as meat supplement in soup. However, a vast majority of the people interviewed attributed the consumption majorly to historical reasons by

implying that insect consumption is part of the culture handed down to them by their forefathers. Moreover, before these insects are consumed, they are usually processed in many local ways by the Ijebu people. (South Western Nigeria) Among these methods, frying, boiling, smoking on fire and roasting (with salt) were mentioned.

The results gotten during this research revealed that majority of the people preferred the roasting and frying methods respectively as the major processing methods. This also confirmed the earlier observation made by Ogunfeyibo (1998) who reported the boiling and roasting methods as the major ways of processing bush meat before consumption Adeola (1992) reported the use of some wild animals or parts of the animals for cultural and religious festivals in Nigeria. Examples in this context are the uses of the feathers of parrots (*Psittacidae*) as materials for making marks for masquerades in Irun-Akoko, Ogbagi-Akoko, Ado-Ekiti, all in Ekiti State. (South Western Nigeria).

The research revealed that some insects are employed in the performance of certain cultural/ritual rites like coronation ceremonies, fortune-making rituals and wedding ceremonies in which these insects are offered to traditional gods as sacrificial items. Some of the insects mentioned relating to these purpose, are *Apis mellifera*; *Anapleptes trifaciata*; *Macrotermes bellicosus* and *Camponotini brutus*. Also *Brachytypes sp* is used as sacrificial items for money rituals. Just as the tusks and skin of elephants, lion and leopard are used for the installation of traditional rulers and are worn during cultural festivals (Adeola 1992), the enormously distended queen termite

(*Macrotermes nigriense*) and *Apis mellifera* are used for the same purpose.

Asibey and Child (1990); Sodeinde and Soewu (1996) and Ogunfeyibo (1998) reported the traditional use of wild life for the prevention and cure of diseases such as fever and leprosy, making good luck charms, prevention of accidents preparations of aphrodisiacs, fertility medicine for women and potency medicine for men. Gorilla was reported for utilization in the most diverse number of ways including the protection of males against thunderbolt (Magun). This is in line with the finding in this research work that insects *Macrotermes nigriense*; *Periplanata americana*; *Brachytypes sp*; *Camponotini brutus*; *Cryptothelia rougeoti* and *Musca domestica* are used in the preparation of the concoction used for the healing of wounds, appealing to witches and in the preparation of pre-natal and post natal problems. Not less than 80% of the interviewed people confirmed this fact. This was also confirmed in this research work as regards to the utilization of *Camponotini brutus* as medicinal items for curing ear defects, for the preparation of pregnancy medicine for women, prosperity medicine and for the treatment of eye defects.

While *Camponotini brutus* is used for preparing business success concoction, curing of ear defects and healing of eye defect, *Periplanata americana* is employed for healing fresh wounds and treating ear defects, *Brachytypes sp* are used in appeasing to witches, , *Brachytypes sp* are on the other hand consumed to aid mental development, pre and post-natal care purposes and *Musca domestica* is being used for preparing eye defects antidotes for encouraging weight gain, spiritual protection and prosperity medicine, treatment of infant fever and for the conferment of immunity (when mixed with eyebrows and applied to the eyelids) of the people. Adekoya (1983) reported that the medicinal use of animal vary from place to place inspite of generalized uses.

CONCLUSION

Insects owing to their diversity and abundance both in rural and urban regions have occupied a significant lace in the survival of man, most especially among the people resident in the rural environment. The multi dimensional impacts and consumption of insect among certain tribes the world over has prompted myriads of research into the scientific and economic evaluation of some of these insects, which are locally available for use. In this survey carried out among the Ijebus on the utilization of many insects for nutritional, ritual and medicinal purposes insects were confirmed to be

of immense value to the extent that about 75% of the people interviewed confirmed their importance. That the insects are used for traditional medicinal purposes which include spiritual protection, business success concoction, preparation of prosperity medicine, appeasing witches; preparation of love medicine, treatment of eye and ear defects prevention and control of convulsion, treatment of whitlow and disease disinfection.

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