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Public Perception of Mudskipper Consumption in Some Fishing Communities of Rivers State, Nigeria

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ABSTRACT

This study is an attempt to evaluate public perception of mudskipper consumption, a delicacy in some fishing communities of Rivers State in Niger Delta area of Nigeria. One hundred and twenty structured questionnaires were randomly distributed in ten communities spread across three local governments. The results of the survey showed that consumption of mudskipper was more popular among the old people than the younger ones. A greater number of people 82.50% considered mudskipper as fish, 10% as nuisance, 4.17% as snake and 3.32% as pest. Also, 83.33% of the respondents were favorably disposed towards mudskipper 15.0% were negative and 1.67% were indifferent. The study revealed that there is no taboo in the consumption of mudskipper in these areas, any perceptions were observed personal to individual and not a communal affair.

Key words: Perception, mudskipper, food, fish, consumption, coastal communities, Niger delta

INTRODUCTION

Mudskippers of family Gobiidae, are amphibious fish that have features for successful adaptation in both land and water (Swanson and Gibb, 2004). They are particularly endemic to intertidal zones of brackish environment and are more visible and active during low tides (Al-Behbehani and Ebrahim, 2010). In Niger Delta region of Nigeria, mudskippers are one of the prominent aquatic animals found in most of the coastal communities especially in the mangrove forest swamp. According to Akinrotimi *et al.* (2007), mudskippers are one of the fishery products consumed in fishing communities in Niger Delta. The consumption pattern varies from one community to another depending on the perception of the people based on some beliefs, tradition, culture and mode of food intake of the populace in these coastal areas.

The pattern of nutritional intake of people living in fishing communities is determined majorly by availability, accessibility, type and quality of food, as well the income level of the consumers (Peng, 1981; Iyangbe and Orewa, 2009). In most fishing communities, fish is an important food item being consumed by many families, providing about 80% total protein intake to the populace (FAO, 2001). The production system of fish in these coastal communities is mainly artisanal with little aquaculture practice and fish is usually marketed and distributed through formal and informal channels, often with less promotional effort for the product (Ayanda *et al.*, 2005). The consumer perception on mudskipper consumption in fishing communities has not been studied empirically for prioritization of packaging, sizes and preservation methods to satisfy the needs of

consumers. According to Offiongodon (1989), no two people can perceive a product in the same way as their views and perception will be quite different. Therefore, empirical analysis on public perception of mudskipper, a delicacy in many fishing communities of Niger Delta is imperative to satisfy the consumer needs. Once this is achieved the demand for this species will rise and the fisher folks will be encouraged to increase production effort which will lead to the growth and development of fisheries subsector and the overall well-being of people living in these communities. This study therefore analyzed some perceptions and dispositions towards the consumption of mudskipper in some communities of Rivers State.

MATERIALS AND METHODS

Area of study: The study was conducted in 10 communities; covering three local government areas; Buguma, Ido, Abalama, Tema, Okpo and Ilelema (Asari Toru Local Government Area); Obuama and Degema (Degema Local Government), Abonnema and Obonoma (Akukutoru Local Government Area) all in Rivers State of Nigeria. These areas are surrounded by large water bodies, such as rivers and adjoining creeks. The vegetation in this area is predominantly mangrove swamp forest.

Sampling procedure and data collection: The sample for the study was collected randomly from the stated 10 communities. 12 respondents were randomly selected in each town to give a total sample size of 120. Data for the study were generated through structured questionnaires administered in these areas. Data collected include socio-economic characteristics such as sex, age, occupation and consumer perceptions towards consumption of mudskippers.

Analytical technique: Descriptive statistics involving the use of measure of central tendency such as frequency, percentage and chart were used to analyze the data (Wahua, 1999).

RESULTS AND DISCUSSION

The socio-economic factors of mudskipper consumers during the study were shown in Table 1. The data obtained indicated that the highest respondent (33.33%) was observed in the age bracket of 25-40 years while those in 10-15 years recorded the lowest (5.0%). This result further revealed that mudskipper consumption was more acceptable among the older people than the young ones. This corroborates the report of Al-Behbehani and Ebrahim (2010), in Kuwait bay who reported that mudskipper was more acceptable among the old than the younger ones. Out of these consumers 55.83% are male, while 44.17 are female and occupationally, their distribution indicated that fishermen had the highest percentage (20.00%) while lowest percentage (4.12%) were recorded in the retirees (Table 1).

The perception of mudskippers by the respondents indicated that 82.50% considered mudskipper as fish, 10% it as a nuisance, while 4.17% perceived it to be a snake and 3.33% as pest (Table 2). The different perceptions exhibited during the study revealed various ways in which people view at mudskipper in these communities. Their reasons may be based on individual personal opinion, which according to Shaw (1990), is a crucial element of decision in most fishing communities.

The general disposition towards mudskipper is highly favourable (83.33%), 15% were in the negative, while 1.67% were indifferent (Table 3). This disposition may be as a result of mudskipper being popular and acceptable among the older generation who are more in number in rural areas. Also this set of people is mature and experience in their assessment ability.

Table 1: Distribution of socio-economic characteristics of respondents

Socioeconomic variables	Frequency	Percentage
Age (Years)		
10-15	6	5.00
15-25	26	21.67
25-40	40	33.33
40-60	35	29.17
60 and above	13	10.83
Total	120	100.00
Gender		
Male	67	55.83
Female	53	44.17
Total	120	100.00
Occupation		
Petty trader	15	12.50
Student	16	13.33
Applicant	7	5.83
Civil servant	16	13.33
Retiree	5	4.17
Craftsman	14	11.67
Fisher folk	24	20.00
Businessmen	14	11.67
House wife	9	7.50
Total	120	100.00

n = 120

Table 2: Perception of mudskippers by the respondent

Variables	Frequency	Percentage
Fish	99	82.50
Nuisance	12	10.00
Snake	5	4.17
Pest	4	3.33
Total	120	100.00

n = 120

Table 3: Disposition of respondents to mudskipper

Disposition	Frequency	Percentage
Favourable (positive)	100	83.33
Unfavourable (negative)	18	15.00
Indifferent	2	1.67
Total	120	100.00

n = 120

The consumption trend of mudskipper indicated that 87.50% of the respondents consume mudskipper, 10.83% do not consume and 1.67 were indifferent (Table 4). The interesting finding of the survey was the fact the high consumption pattern of mudskippers confirmed that there is no taboo in eating mudskippers like in some other areas of the state where it is culturally forbidden to eat it. As Akinrotimi *et al.* (2011) noted that taboo and cultural barriers are the major factors influencing the consumption of fishery products in most part of Niger Delta region in the country. Consumer preference of mudskipper to fish were analyzed, 30% in the positive, 61.66% while 8.34% prefer both fish and mudskipper (Table 5). The reason some prefer mudskipper to fish is the belief

Table 4: The distribution of respondents by consumption of mudskipper

Variables	Frequency	Percentage
Consume mudskipper	105	87.50
Do not consume	13	10.83
Indifferent	2	1.67
Total	120	100.00

Table 5: Distribution of respondent preference of mudskippers to fish

Variables	Frequency	Percentage
Prefer mudskipper to fish	36	30.00
Prefer fish to mudskipper	74	61.66
Prefer both fish and mudskipper	10	8.34
Total	120	100.00

n = 120

that mudskipper is more tasty, highly nutritious and medicinal. While those who prefer fish to mudskipper gave reasons as small size, bulging eyes and bony head as major factors for this preference.

This result is in line with that of Ironi and Oyaide (2007) in some fishing communities of Delta State, Nigeria, who observed that fish is more preferable than other aquatic animals. However, Akinrotimi and Edun (2011) reported that in some coastal communities of Rivers state, consumers prefers other aquatic products to fish because of other advantages being derived from their consumption.

CONCLUSION

Public perception of mudskipper consumption in some fishing communities is an attempt to identify some perceptions affecting mudskipper consumption and wrong opinions formed about consumption of this species in some coastal communities. This study should be conducted in other fishing communities in the country with a view to assess perception, pattern and preference of mudskipper consumption. It is only when consumer interest and needs are adequately assessed that fisheries section can be fully developed and poverty reduced in the rural areas.

REFERENCES

Akinrotimi, O.A. D.N. Onukwo, P.T. Cliffe, P.E. Anyanwu and O.O. Orokotan, 2007. The role of Fish in the nutrition and livelihood of families in Niger Delta, Nigeria. Int. J. Trop. Agric Food Syst., 1: 344-356.

Akinrotimi, O.A. and O.M. Edun, 2011. Consumer disposition towards Mangrove Oyster (*Crassostrea gasar*) consumption in selected fishing communities of rivers state, Nigeria. Cont. J. Agric. Econ., 5: 41-46.

Akinrotimi, O.A., P.T. Cliffe and I.F. Ibemere, 2011. Integration of rural aquaculture into small scale farming systems in Niger delta region of Nigeria. Global Approachs Extension Pract., 7: 43-48.

Al-Behbehani, B.E. and H.M.A. Ebrahim, 2010. Environmental studies on the mudskippers in the intertidal zone of Kuwait Bay. Nat. Sci., 8: 79-89.

Ayanda, J.O., A.A. Tafida and E.O. Nwabeze, 2005. Consumer preference of fish species and products in Kainji lake basin and its relevance to aquaculture development in Nigeria. Proceedings of the 20th Annual Conference of the Fisheries Society of Nigeria, November 14:218, 2005, Port Harcourt, Nigeria.

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- FAO, 2001. Market infrastructure planning: A guide for decision makers. FAO Agricultural Services Bulletin No. 151, Pp. 38.
- Ironi, O.E. and W.J. Oyaide, 2007. Socio-economic analysis of artisanal fishing in the south agro-ecological zone of Delta state, Nigeria. Agric. Trop. Sub-Trop., 40: 135-149.
- Iyangbe, C.O. and S.I. Orewa, 2009. Assessment of the calorie-protein consumption pattern among rural and low-income urban households in Nigeria. Middle-East J. Sci. Res., 4: 288-269.
- Offiongodon, A.M., 1989. Marketing Management for Manager. Jos University Press Ltd., Nigeria, Pages: 201.
- Peng, K.K., 1981. Consumer action: A third world approach. FAO Rev. Agric. Dev., 81: 31-34.
- Shaw, S.A., 1990. Marketing: A Practical Guide for Fish Farmers. John Wiley and Sons, New York, ISBN: 9780852381762, Pages: 96.
- Swanson, B.O. and A.C. Gibb, 2004. Kinematics of aquatic and aquaculture and terrestrial escape responses in Mudskippers. J. Exp. Biol., 207: 4037-4044.
- Wahua, T.A.T., 1999. Applied Statistics for Scientific Studies. African Links Books, Aba, Nigeria.