ASSESSMENT OF CULTURED *CLARIAS GARIEPINUS* CONSUMPTION AND CHALLENGES AMONG PRINCE ABUBAKAR AUDU UNIVERSITY STAFF, ANYIGBA, KOGI STATE, NIGERIA

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Abstract
This research is aimed at assessing the consumption of cultured *Clarias gariepinus* and challenges among Prince Abubakar Audu Universtiy (PAAU) Staff, Anyigba, Kogi State, Nigeria. A multistage random sampling technique was used to collect data from the respondents. First stage a comprehensive list of 789 Staff was compiled as provided by various Heads of Departments and Deans of Faculties, secondly 50% of the Departments were randomly selected from each of the eight Faculties and finally 60% of Staffs were randomly selected from each Department with a sample size of 253 respondents. Structured questionnaire were used to obtain data analyzed through descriptive (frequency, percentages and mean). The results showed that majority (89.72%) of the Staff consumed cultured *Clarias gariepinus*, purchased from the market (48.62%), because of accessibility (41.5%) and in smoked form (63.64%). About 60% of the respondents consumed cultured *Clarias gariepinus* because of taste, understood Omega 3 as a good source of essential fats in the fish (69.17%) and good for child's brain development (99.21%). Price rate **($\bar{x}$=2.44) is a major challenge to the consumption of cultured *Clarias gariepinus* among the respondents.** The study recommended that fish farming inputs should be subsidized by the Government to reduce the cost of production there by reducing the market price of cultured *Clarias gariepinus* to make it affordable to the Staff for consumption.
Key word: Challenges, consumption, fish, income, Staff,

INTRODUCTION

In Nigerian economy, as in most African countries, fish farming plays a significant role in employment creation and income generation (Mulokozi *et al*., 2020). The current fish demand consumption in Nigeria stands at 1.4 million metric tons (Onyekuru *et al*, 2019), to satisfy the dietary requirement of its citizens but the total aggregate domestic fish supply from all sources (capture and culture fisheries) is less than 0.7 million metric tons per annum. The importance of the fisheries sector to the Nigerian economy, as well as the benefits that Nigerians gain from fish and other fish products resulted in high consumption and as a result, increased demand for fisheries products (Olalekan and Wahab, 2018). Fish plays a vital role in feeding the world's population and contributing significantly to the dietary protein intake of hundreds of millions of the populace. In Nigeria, 50 per cent of the total average intake of animal protein is attributable to fish (Liverpool-Tasie et al., 2021). Fish farming continued to grow gradually and catfish became the dominant fish culture in Nigeria and is currently responsible for the major aquaculture output of the country (FAO, 2017). There are many culturable catfish species but *Clarias gariepinus* is the most cultured fish in Nigeria and indeed Africa because of its ability to withstand variable environmental conditions (Limbu, 2020). It is expected that with increasing aquaculture production and declining consumer acceptability of frozen fish, perhaps consumer preference might shift towards the consumption of cultured fish (Tran *et al.*, 2019). Nigerian aquaculture industries rank second in Africa (Adeleke *et al.*, 2021, Food and Agriculture Organization, 2020), though, yet to reach the country's full production potential in terms of available natural, environmental and socio-economic factors (Adeleke *et al.*, 2020, Adeleke *et al.*, 2021). The fisheries and aquaculture industries have grown dramatically in recent decades, with overall production, trade, and consumption reaching new highs in 2018 (FAO, 2018). The invaluable source of food has been serving the people from times immemorial. The alarming sources of health and nutrition crisis can find answers in fish consumption, out of a large number of health benefits of eating fish, its contribution as a fabulous source of high-quality proteins is remarkable and is to be noted. This cannot be given or substituted by even a single vegetarian food (Okelola and Babalola 2022). The study therefore aimed at assessment of cultured *Clarias gariepinus* consumption and

challenges among Prince Abubakar Audu University Staff, Anyigba, Kogi State, Nigeria. Specific objectives are to: (i) investigate the consumption of cultured *Clarias gariepinus* among the respondents (ii) describe knowledge of cultured *Clarias gariepinus* (iii) examine factors affecting the consumption of cultured *Clarias gariepinus* (iv) identify challenges of cultured *Clarias gariepinus* consumption among the respondents.

MATERIALS AND METHODS

The study was carried out at Prince Abubakar Audu University (Formerly Kogi State University) located at Anyigba. It was established in 1999 by Prince Abubakar Audu, the pioneer Civilian Governor of the State. At the time of its establishment, it was known as Kogi State University, It was later named Prince Abubakar Audu University (PAAU) in 2002, after the then sitting Governor of Kogi State Ibrahim Idris renamed as Kogi State University (KSU) in 2003, subsequently renamed as Prince Abubakar Audu University (PAAU) in 2020 by the incumbent Governor Alhaji Yahaya Adoza Bello in respect of the founder late Abubakar Audu. It is located at Latitude: 7° 28' 51.39" Longitude: 7° 11' 14.86" E. A multistage random sampling technique was used to collect data from the respondents. First stage a comprehensive list of 789 Staff was compiled as provided by various Heads of Departments and Deans of Faculties, secondly 50% of the Departments were randomly selected from each of the eight Faculties and finally 60% of Staffs were randomly selected from each Department with a sample size of 253 respondents. Structured questionnaire and scheduled interview were used to obtain information.

RESULTS AND DISCUSSION

Table 1indicated that 89.72% of the respondents consumed Cultured *Clarias gariepinus*, only 32% consumed it twice a week, 35.57% consumed 1kg and above 5kg as household respectively. Only 48.62% purchased cultured *Clarias gariepinus* form the market because of accessibility (41.50%) and 63.64% consumed it in smoked form. Households make choice out of various food items available at their disposal and this in turn determines the level and extent to which consumption would be based. High percentage household consumption of fish among the respondents could be attributed to affordability and cheapness compared to other sources of animal protein. Fish is a nutritious animal protein and is believed to be a comparatively cheaper and available source of animal protein in most countries around the world (Idris *et al,* 2018). Smoked fish consumption has also been reported by Jimoh *et al*, (2021).

Table 1: Consumption of *Clarias gariepinus*

Variable	Frequency	Percent
Do you and your household Consume *Clarias gariepinus*?		
Yes	227	89.72
No	26	10.28
How often do you and your Household consume *Clarias gariepinus*?		
Once a month	27	10.67
Once every 2 weeks	40	15.81
Once a week	63	24.90
Twice a week	81	32.01
Every day	42	16.60
What quantity of *Clarias gariepinus* do you and your Household consumes at each meal?		
1kg	90	35.57
2kg	33	13.04
3kg	23	9.09
4kg	17	6.72
5kg above	90	35.57
Where do you normally buy your cultured *Clarias gariepinus*?		

Market	123	48.62
Fish farm	88	34.78
Fish shop	30	11.86
Door-to -door seller	12	4.74
Why do you buy from these places?		
Cheap	35	13.83
Fresh fish available	71	28.06
More accessible	105	41.50
Hygienic	42	16.60
What type of cultured *Clarias gariepinus* Do you consume?		
Fried	3	1.19
Canned	0	0
Smoked	161	63.64
Fresh	70	27.67
Dried	22	8.70

Source: Field Survey, 2022

Table 2 showed that 54.15% of the respondents indicated that taste was a major factor that affected their consumption of cultured *Clarias gariepinus*, 23.32% indicated freshness while 7.51% attributed it to its health benefit. An analysis of consumer preference for type of fish is important and this may be useful for fish production, distribution and marketing. in order to maximize profit. Okelola and Babalola (2022) in a similar study reported taste as an important factor that affects fish consumption.

Table 2: Factors that affect the consumption of Cultured *Clarias gariepinus*

Variables	Frequency	Percentage
Freshness	59	23.32
Good quality	20	7.91
Affordable	5	1.98
Like the taste	137	54.15
Easy to prepare	13	5.14
Health benefits	19	7.51

Source: Field Survey, 2022

Knowledge of Cultured *Clarias gariepinus*

Table 3 showed the knowledge of respondents on cultured *Clarias gariepinus*, 69.17% identified omega 3 as essential fats, 26.09% do not know, 99.21% were aware that its consumption is good for child brain development while 39.13% and 27.27% identified heat and Bacteria respectively as means of fish spoilage. Knowledge of what to consume affects consumers' choice of food this is because it enables them to know the health benefits and other implications of such food item. In a similar study, Okelola and Babalola (2018) opined that fish consumption is helpful in the growth and mental development of children till they reach the adult stage.

Table 3: Knowledge of Cultured *Clarias gariepinus*

Variables	**Frequency**	**Percent**
***Clarias gariepinus* is a good source of omega 3. What is omega 3?**		
Protein	12	4.74
Essential fats	175	69.17
Don't know	66	26.09
Is eating Cultured *Clarias gariepinus* good for a child's brain development?		
Yes	251	99.21

No	2	0.79
What makes Fish spoil or go bad?		
Heat	99	39.13
Bacteria	69	27.27
Enzymes/chemical	41	16.21
Don't know	44	17.39

Source: Field Survey, 2022

Challenges of PAAU Staff on consumption of cultured *Clarias gariepinus*

Table 4 indicated the challenges of PAAU Staff on consumption of cultured *Clarias gariepinus.* Price rate (**$\bar{x}$=2.44) was rated higher than all other challenges. Income ($\bar{x}$=1.65), availability of fish ($\bar{x}$=1.22), cultured environment ($\bar{x}$=1.46) and non-conventional feed ($\bar{x}$=1.19).**

Table 4: Challenges on consumption of cultured *Clarias gariepinus*

Challenges	Very Sever	Sever	Not Sever	MEAN SCORE
Price rate	193	48	12	2.44*
Availability of fish	21	49	183	1.22*
Income	55	102	96	1.65*
Religious belief	0	0	253	0.90
Level of fat content	0	18	235	0.96
Cultured environment	36	88	129	1.46*
Non-conventional feed	17	49	187	1.19*

Source: Field Survey, 2022

CONCLUSION AND RECOMMENDATIONS

In conclusion, cultured *Clarias gariepinus* is highly consumed among Prince Abubakar Audu Staff mostly in smoked form and price rate is a major challenge to its consumption. The study recommended that fish farming inputs should be subsidized by the Government to reduce the cost of production there by reducing the market price of cultured *Clarias gariepinus* to make it affordable to the Staff for consumption.

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