

Species Composition and Socioeconomic Status of the Fisherfolks of the of in Coastal Waters of Lagos State Nigeria

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ABSTRACT

A survey of species composition of Ofin waterside, Lagos lagoon, Nigeria conducted for 6 months (July - December, 2015) which falls within the late rainy season revealed the predominance of seven fishes viz Chrysichthys nigrodigitatus, Tilapia aurea, Polydactylus quadrifilis, Mugil cephalus, Pomadasys jubelini, Cynoglossus cynoglossus and Sphyraena piscatorum. There was comparatively lower catches of fish in October especially Polydactylus quadrifilis probably due to increased water level and lowered salinity. Study of socioeconomic characteristics of the fisher folks showed high level of illiteracy among the male-dominated fishing population(most of whom are Yorubas). 72.5% of them are between age of 21 and 41years. This is also reflected by the high level of fisher folks that claimed ignorance of fishing laws (95%). Over 40% of the fisher folks used cast nets, 37.5% used gillnets with mesh sizes lower than 1 inch, thus resulting in indiscriminate catching of fishes. 92% of the fisher folks are into full-time fishing mainly in the rainy season. Half of the fisher folks used motorised boats which enables deeper entry inshore. Nearly 70% fish in pairs while a mere 4% fish singly. Major challenges include stormy/windy weather, erosion, restricted access to credit, inadequacy of fishing inputs, poor infrastructures and poor storage facilities, hence the need for more governmental intervention especially in terms of training, extension services and provision of infrastructural facilities.

Keywords: Species composition, fisherfolks, socioeconomics, infrastructure, challenges, lagoon.

CHAPTER ONE

INTRODUCTION

Fish plays an important role in the development of a nation. Apart from being a cheap source of highly nutritive protein, it also contains other essential nutrients required by the body (Sikoki and Otobotekere, 1999; Balogun, 2015).

Nigeria is blessed with abundant natural aquatic resources in marine, estuarine and freshwater environments. The marine components are within the Nigerian 200 nautical miles Exclusive Economic Zone (EEZ) and the coastal waters. The estuarine resources are found in the extensive mangrove ecosystem estimated to cover an area of about 858,000ha. The freshwater components are within extensive river systems, lakes, flood plains and reservoirs scattered over the entire land surface area of over 4,212,500ha (Ita, 1993, Obasohan and Oransaye , 2006).

The artisanal fisheries sector is important in Nigerian fisheries industry being the major contributor to the domestic supply of fish. Despite the importance of the coastal areas of

Nigeria and the artisanal fisher folks, the standard of living is far from being enviable, hence the need to study the socioeconomic status of the fisher folks with a view to coming up with appropriate management strategies. There is a dearth of information on socioeconomic status on the artisanal fisher folks of Lagos State. There have been past works by authors like Williams (1998), Omitoyin and Fregene (2008) and others on the neglect of artisanal fisher folks of Nigerian coastal waters.

The bulk of poverty-stricken Nigerians are in the coastal areas characterized by intense anthropogenic activities and dearth of infrastructural facilities, hence the need for this present study.

The purpose of this study is to determine the species composition and socioeconomic status of the fisher folks of Ofin waterside, Lagos lagoon. They are useful in decision making on utilisation, management and conservation of the resources in coastal waters of Lagos State (Agboola and Anetekhai, 2008; Bolarinwa *et.al*, 2016). There is therefore a need to study the

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socioeconomic characteristics of the fisher folks of Lagos State coast. Baseline data to be generated could help in rational evaluation of necessary management practices.

MATERIALS AND METHODS

The Study Area

This study was carried out in Ofin waterside in Igbogbo/Bayeku Local Government Area of Ikorodu in Lagos State Nigeria. Ofin waterside lies between the latitude of 33°11'E and a longitude of 28°27'N degree. The location is situated 628km south west of the approximate centre of Nigeria and 528km south west of the capital of Abuja. It opens into the gulf of Guinea through the Lagos harbour which is the only opening to the sea for the entire western lagoons of Nigeria. The lagoon sediments range between mud, sandy mud, muddy sand, and sand

(Soyinka and Kusemiju, 2007). Occupation of the people is fishing. Some engage in full-time fishing while some are part-time with farming, sawmilling, oil palm processing, and canoe construction as supplements.

Artisanal fishers within the lagoon mainly exploit the fisheries using wooden/dug-out canoes ranging in size from 3m to 8m long. The canoes are either paddled or powered by small outboard engines, and manned by an average of two men. From these boats, the fishers operate their cast nets, hook and lines, gillnet, stow nets traps, lift nets, long line, basket traps etc (Adebawale *et.al*, 2008; Kumolu-Johnson and Ndimele, 2010). It is a populated place located in the area Lagos in Nigeria.

The lagoon form part of the continuous lagoon that stretches from Lake Nokoue in Benin republic to Lagos.

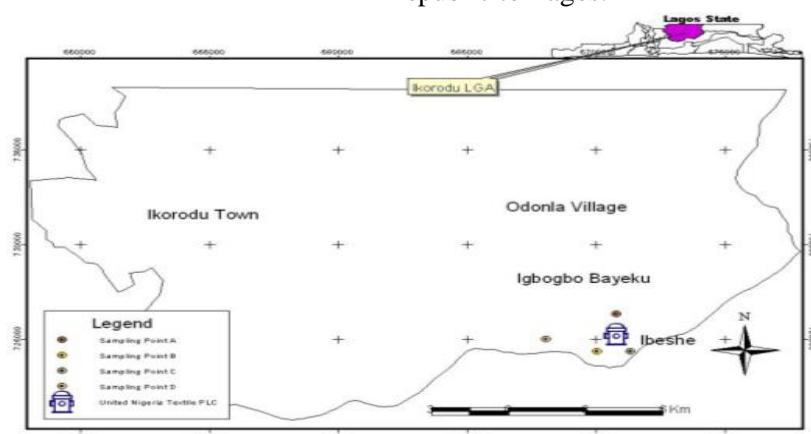


Figure1. Map of Lagos Coastal Villages

A census of all gears operating at the study area was undertaken on the first week of the study period by visiting landing sites very early in the morning and by asking questions from the fisher folks on the operating, frequency of usage and composition of catches of these gears.

Fish specimens were procured from artisanal fishers and middlemen at their landing site for the study. Sampling of landed catches was done for a period of 6 months (July, 2015 to December, 2015). The fishers used a wide range of fishing gear such as hook and line, long line, cast nets, gill nets and traps. From the catches, fish specimens were randomly chosen and identified using keys and descriptions by Holden and Reed (1972), Raji and Olaosebikan, 2010).

RESULTS AND DISCUSSION

The major fish species found in Ofin waterside of Lagos Lagoon are *Tilapia aurea* of family

'Cichlidae', *Pomadasys jubelini* (Ikekere), family' Pomadasyidae', *Mugil cephalus* of family 'Mugilidae, *Sphyraena pectorum(kuta)*' barracuda' of family 'Sphyraenidae', , *Chrysichthys nigrodigitatus* (Obokun) of family' Claroteidae', *Polydactylus quadrifilis*, (Ofan) of family' Polynemidae' and *Cynoglossus cynoglossus* (Abo) of family' Cynoglossidae'.

Data collected from the 162 questionnaires out of 200 administered to the fisher folks of Ofin were analysed, the results of which are stated below:

Majority of fishers folks in Ofin were within age 21-40 years (72.5%) while those within 41-60 years constituted 23.5% of the fishing populace. Merely 4% of the fisher folks were over > 60 years in age. The most active year group being 21-40 year range (Table 1). The fishing populace of Ofin waterside was male –

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dominated. 76% of the respondents were males while females are 24% (Table 2). About 63% of respondents were muslims, 34% were Christians and merely 3% belonged to traditional religion. Educationally, there was a high level of illiteracy among the fisherfolks of Ofin lagoon. About 67% of the fisher folks had primary education, 16% had secondary education, 11% had tertiary education, 6 % had no formal education.(Table1).This low level of literacy calls for urgent intervention by the government because of its negative effects on record keeping ability, respect for fishing laws and regulations and awareness and sensitization. This low literacy level might have been responsible for the disregard to fishing laws and regulations. Nearly 95% of respondents claimed ignorance of fishing laws, hence the use of low-meshed fishing nets for fishing. The survey also revealed most fisherfolks were married and polygamous (78%).

Above 90 % were into full-time fishing and 8% in part-time fishing. It was also observed those having tertiary education among the fisher folks were civil servants and teachers who were mainly part-time fisher folks. 70% of respondents fished in pairs mainly with friends, 26% fished in group of 3 men while merely 4% fished alone (Table 1).

Majority of respondents in Ofin waterside claimed they have no access to credit from banks (92%) while 8% claimed they sought funds to purchase fishing inputs from friends and local money lenders. Low membership of a Cooperative Society was observed (11%) and attributed to lack of awareness of the benefits. This contributed to their low access to credit and fishing inputs given at concessionary rate. The

survey revealed dearth of social amenities in the coastal community. The most pressing needs of Ofin fisher folks were food, shelter, electricity, health facilities and water supply. Similar findings have been reported by past authors (Williams, 2006; Babale, 2008; Omitoyin and Fregene, 2008,).

About 38% of respondents in Ofin used gill nets , followed by cast nets locally called 'obiriki' (43%). Traps (used mainly by the women) accounted for 11%, hooks and line(6.5%) and spears used dexterously by the Ilaje fisher folks accounted for merely 1.5%.

The traps (used mainly by the women) could be made of cane, chicken wire or raffia. The cast nets are conical or funnel-shaped with body length of 6-8m are mostly used by the fisher folks closely followed by gill nets (encompassing and encapturing). Fishes like *Hepsetus odoe*, the tilapias and *Chrysichthys* spp are caught by hooks.

About 70% of Ofin fisherfolks fished in groups of 2. Major fishing partners were friends (81 %). About 12 % of them went on fishing expeditions with their children while nearly 7% fished with their spouses. Most of the spouses were involved in fish processing and marketing.

Over 40% of the respondents claimed the most commonly caught fishes by weight in Of in community are the Tilapias especially *Tilapia aurea* (41%) , followed by the grunter, *Pomadasys jubelini* (20.5 %), *Mugil cephalus* (12%), *Sphyraena pectororum* (10%), *Chrysichthys nigrodigitatus*, a claroteid (9.5%). *Polydactylus quadrifilis* and *Cynoglossus cynoglossus* accounted for 4 % and 3 % respectively.

Table1. Socioeconomic characteristics and fishing practices of Ofin Fisherfolks, Lagos lagoon, Nigeria

Features:	Frequency(%)
Gender:	
Male.....	76
Female.....	24
Age(Years):	
21-40.....	72.5
41-60.....	23.5
>60.....	4.0
Religion:	
Christianity.....	34
Islam.....	63
Traditional religion.....	3
Marital Status:	
Married.....	78
Single.....	12
Divorced.....	7

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Widow/Widower.....	3
Educational Status:	
Primary Education.....	67
Secondary education.....	16
Tertiary Education.....	11
No formal education.....	6
Access to credit:	
Have access.....	8
No access.....	92
Access to Fishing Input:	
No access	93
Have access	7
Type of Fishing Gears Used:	
Cast net.....	43
Gillnet.....	37.5
Traps.....	11
Hooks & Line.....	4
Spears.....	1.5
Commonly caught Fishes:	
<i>Tilapia spp.</i>	41
<i>Pomadasys jubelini</i>	20.5
<i>Mugil cephalus</i>	12
<i>Chrysichthys nigrodigitatus</i>	9.5
<i>Sphyraena pectororum</i>	10
<i>Polydactylus quadrifilis</i>	4
<i>Cynoglossus cynoglossus</i>	3
Knowledge of Fishing Laws:	
Yes.....	96
No.....	4
Fishing:	
Full-Time.....	92
Part-Time.....	8
Group Fishing:	
In pairs.....	70
Triple.....	26
Single.....	4
Membership of Cooperative Society:	
Yes.....	16
No.....	84

Source: Field Survey (2015)

CONCLUSION AND RECOMMENDATIONS

The study revealed obvious neglect of the artisanal fisher folks of Ofin waterside in terms of infrastructural facilities despite their immense contribution to the domestic fish output. There is therefore a need for governmental intervention in the area of provision of soft and hard infrastructural facilities, fishing inputs and credit at concessionary rates. The high level of illiteracy among the fisher folks might have been responsible for the lack of awareness of fishing laws and regulations which could result in overfishing of the waters, there is therefore a need for training and sensitisation of the rural populace.

By and large, there is a need for more in-depth study of the species composition and diversity of Ofin water side over a longer period of time. Ofin waterside is susceptible to pollution in view of its nearness to industrial areas of Ikorodu and Lagos metropolitan. Pollution studies to ascertain the water quality of the aquatic ecosystem should be conducted on a regular basis. Pollution could lead to loss of biodiversity.

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