

Visitors' perception on avitourism in Finima Nature Park, Bonny Island, Rivers State, Nigeria

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ABSTRACT

Although Finima Nature Park (FNP) has over 122 wild birds, it's best known for its tourism appeal and zero toll gate fees. This study conducted an assessment of the perception of avitourism activities in FNP and determined visitors' profiles, avian attractions, and challenges to avitourism activities in the park. Random sampling techniques were used to select the respondents. Primary data were obtained with a semi-structured questionnaire, which was administered to 145 park visitors using convenience sampling techniques. In addition, secondary data on birds was collected from the management of FNP. Data were analysed using descriptive and inferential statistics at $p < 0.05$. The majority of visitors were students (75.2%), with more than half (52.4%) female and the majority within the age category of 20 years and below (62.8%). Most respondents (86.9%) perceived FNP as having lots of birds. The dry season had more bird sightings, as indicated by 59.3% of the respondents. Habitat destruction (36.6%) was the predominant factor affecting birds. The knowledge of respondents is significantly related to age and religion. The pond for canoe rides (43.5%) ranked as the greatest tourist attraction in the FNP. The majority of the respondents perceived insecurity (84.0%) around the coastal beach as the major challenge faced, and improved security (80.7%) was the highest mitigation needed. The majority of the respondents visited FNP for ecotourism purposes (78.6%), and avitourism (5.5%) was the least popular. However, 74.5% of the respondents perceive that FNP has great potential that is yet untapped.

Keywords: Avian, nature conservation, tourism, perception, FNP

INTRODUCTION

Tourism is often referred to as the temporary movement of people, both local and international, to destinations away from their usual place of habitation for at least 24 hours, the activities embarked upon during their stay in that destination, and the facilities developed to provide for their needs (Parks and Recreation Management, 2012). According to the World Tourism Organization (UNWTO, 2016), tourism comprises the activities of persons

traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business, and other purposes. There are different types of tourism: leisure, adventure, cultural, ecotourism, business, medical, sports, and educational. Ecotourism, also known as ecological tourism, is responsible travel to natural areas that conserves the environment and sustains and improves the well-being of local people through interpretation and education (TIES, 2015;

Triarchi and Karamanis, 2017). It is a type of tourism that has been recently popularized as a way of protecting and conserving biodiversity and indigenous cultures (Ijeomah *et al.*, 2019) and has become one of the fastest-growing forms of the tourism industry (Miller, 2001; Triarchi and Karamanis, 2017). Challenges in ecodestination include security challenges (eco-terrorism), a lack of man-made infrastructure and basic amenities, socio-political instability, arduous environmental conditions, access issues due to the land tenure system, and a lack of information. These are some of the major challenges of avitourism development in Nigeria. Ijeomah and Duke (2016), Ijeomah and Odunlami (2016), Yilma *et al.* (2016), and Nimmak *et al.* (2020) have also surveyed challenges in nature-based destinations, and some of the parameters include insect bites, frequent rainfall, long distances, insecurity, slippery walkways, lack of convenience, destruction of wildlife species (poaching), unauthorized deforestation, and inadequate infrastructure to cater for all tourism activities. However, despite these numerous challenges, there are always peculiarities in every eco-destination.

Tourists' sociodemographic characteristics, motivation, and satisfaction can be used to predict tourist visitation patterns and travel behaviors, and this has long been studied (Rafael, 2017; Anson *et al.*, 2018; Fauziah *et al.*, 2019; Wambani *et al.*, 2020). Aspects of the social demographic characteristics of tourists in ecotourism destinations have also been surveyed by Oladeji *et al.* (2012), Ajayi and Eveso (2017), and Ijeomah and Duke (2016). Key parameters such as gender, age, nationality, marital status, place of residence, religion, occupation, level of education, level of income, and household size have been used to elicit information regarding the social demographic characteristics of tourists in order to determine any relationship and predict tourist visitation behavior and pattern. Avitourism, also called bird tourism, is travel to destinations that focuses on the explicit purpose of sighting birds and highlights local birding opportunities (Triarchi and Karamanis, 2017; Oyegbami *et al.*, 2018). Avitourism is a rapidly growing and environmentally mindful segment of ecotourism (Oyegbami *et al.*, 2018). Many tourist destinations promote birding festivals, hotspots, trails, reserves, parks, and other locations to

encourage birders to visit the area. When visiting bird eco-destinations, birders spend hundreds of dollars or more in travel costs, accommodations, dining, and other incidental expenses, thus generating income for the host community.

Avitourism also draws attention to local avifauna, which can be beneficial for raising conservation issues and promoting a more sustainable culture and environmental appreciation (Oyegbami *et al.*, 2018). It is important to stress that birds are easier to see and occur in most habitats where other vertebrates have been eliminated by humans, either for the threats they pose, because they serve as food for humans, or because they are unable to adapt to the human-modified landscapes. According to Nicolaides (2013), Africa is a top priority for birding activities for many avid birdwatchers, and abroad, avitourism is a rapidly growing niche tourism market. However, this is not the case for Africa's avitourism, which is yet to reach its full potential (Conradie, 2015). Despite human wildlife conflicts that involve some avian species, people's love for birds due to their aesthetic beauty is unmatched compared to other groups of vertebrates. Understanding the attitudes and perceptions of people towards birds and their conservation is a primordial factor and strategy. According to Ebua *et al.* (2011), the success of wildlife conservation depends on the attitudes of the local population and their perception of the concepts and strategies put forth by conservation organizations. Tourists' perceptions towards birds have been surveyed by Owusu (2008), Mmassy and Rskaf (2013), Belaire *et al.* (2015), Bilah *et al.* (2018), and these surveys reveal local people can recognize birds and their importance.

The Finima Nature Park (FNP) was established and sponsored by the Nigerian Liquefied Natural Gas Company (NLNG) since 1999 with the primary objectives of protecting the integrity of the forest and providing a refuge for wildlife threatened or displaced by oil and gas industry activities (Akani and Luiselli, 2010). FNP is home to some wildlife species of high conservation value, including a variety of birds (Table 6), over 42 plant species, 17 mammals, 18 amphibians, and 36 reptiles, including crocodiles and snakes (FNPBA 2019). The

success of the tourist location is largely dependent on the community's attitude and perception toward tourism (Stojkovi *et al.*, 2020). Demographic characteristics such as gender (Nunko and Gursoy, 2012), age (Látková and Vogt, 2012; Tepavevi *et al.*, 2019), education level (Papastathopoulos *et al.*, 2019), and length of period of residence or nativity (Khoshkam *et al.*, 2016; Liang and Hui, 2016) have been reported to impact local populations' attitudes and perceptions towards tourism development.

Although a lot of publications address ecotourism potential (Ijeomah and Duke, 2016; Ijeomah *et al.*, 2019) as a vital niche area of tourism, little available online publication has been made on avitourism and its potential in Nigeria. Nigeria, with over 900 species of birds, has the potential to be an avitourism area. According to Nicolaidis (2013), Africa is a top priority for birding activities for many avid birdwatchers, and abroad, avitourism is a rapidly growing niche tourism market. However, this is not the case for Africa's avitourism, which is yet to reach its full potential (Conradie, 2015). While the ecotourism potentials of the FNP have been reported by Ijeomah and Duke (2016) and Ijeomah and Odunlami (2016), and the diversity and abundance of birds have been reported by FNPBA (2019) and Bunza *et al.* (2021) no survey has highlighted the avitourism potentials of the FNP despite the area being home to over 122 species of birds and key biodiversity areas for Palearctic migrants. More importantly, FNP has been approved and certified by the Ministry of Culture and Tourism, River State, as an ecotourism hotspot in the state, and surveying the avitourism potential of the region will add value to the tourism potential of the region. The survey was therefore designed to determine the demographic characteristics of tourists in FNP, visitors' perceptions towards birds, challenges and mitigations of touring in the study area, and a significant relationship between the demographic characteristics of respondents and their knowledge and affinity for birds.

MATERIALS AND METHODS

Study area

The study was conducted at Finima Nature Park, Bonny Island, Rivers State, Nigeria in 2019. The park once covered a total land area of 1000 hectares (3.9 sq mi) of freshwater swamp forest at the onset in 1999 (Akani and Luiselli, 2010; Ijeomah and Duke, 2016). However, habitat encroachment and fragmentation have reduced the park core area to approximately 634.43 ha, which can easily be categorized into three regions: the eastern (375.68ha), the Hippo Creek (30.76 ha), and the western block (228.08ha) (Agorye *et al.*, 2016). The park lies on latitudes 4° 23' 7" N to 4° 24' 7" N and longitudes 7° 8' 5" E to 7° 11' 30" E (Agorye *et al.*, 2016; FNP 2019). FNP is bordered by the bight of Bonny to the south and surrounds the NLNG residential area (RA) on all four sides. The park also shares borders on the northwest with New Finima Settlement, while the industrial establishments and Bonny Town are directly to the north of the park (FNP, 2019; FNPBA, 2019). The narrow vegetation strip to the south of the RA is mainly mangrove, while freshwater swamps are to the east and west. The OGGS gas pipeline forms the park's northeastern boundary, while the community of Agaja is northeast and the Sebekiri community is northwest (FNPBA, 2019). FNP is characterized by an equatorial climate type, with the wet season from May to October with an average annual rainfall of 3200mm and the dry season from November to April (Barbour *et al.*, 1982; Akani and Luiselli, 2010). The relative humidity is high (from 65% in the dry season to 98% in the wet season) (Akani and Luiselli, 2010).

Data collection and analysis

Data for this study were collected using both primary and secondary sources. The primary data for the study was collected using a single set of semi-structured questionnaires, and the secondary data was a review of park records. A convenience sampling technique was used to administer the semi-structured questionnaire to 145 visitors to get a rapid appraisal of their perception of avitourism, avian attraction at the site, visitor profile, and touring challenges.

The questionnaire was written in English to avoid communication problems. In general, the questionnaire comprised questions eliciting information on the knowledge and experiences the respondents have concerning birds and avitourism, as used by Ajani and Pudie (2020) and Ijeomah and Duke (2016) in a similar study. A review of FNP data and publications on birds of the FNP (FNBA, 2019 and FNP, 2019) was done to complement the data obtained through the questionnaire.

Data from retrieved questionnaires was transformed into electronic form using appropriate coding and descriptively analyzed using frequency and percentages. Spearman rank correlation was used to investigate the significant relationship between demographic characteristics of respondents and their ability to identify birds and their love perception towards birds, which were measured dichotomously using Yes or No responses. Descriptive and inferential analyses were done using the

Statistical Package for Social Science (SPSS) version 23, while charts were plotted using Microsoft Excel (v. 2010).

RESULTS

Socio-demographic characteristics of the tourists in FNP

The result of the socio-demographic characteristics of the tourists in FNP is presented in Table 1. The table shows that 53.8% of the respondents that visited the park were natives of the community, and the majority were female (52.4%). Most of the respondents were less than 20 years of age (62.8%), followed by 20.7% in the 30-39 age category. Also, most of the tourists have lived in the community for between 11 and 15 years (35.2%). Christianity ranked as the religion of the majority (88.8%) of the respondents. Secondary school students (75.2%) mostly visited the FNP, followed by traders (8.3%), and the least were hunters (0.7%).

Table 1: Socio-demographic characteristics of tourists in Finima Nature Park

Parameters	Variables	Frequency	Percentage
Nativity	Native	78	53.8
	Non-native	67	46.2
Gender	Male	69	47.6
	Female	76	52.4
Age	<20	91	62.8
	20-29	12	8.3
	30-39	30	20.7
	40-49	6	4.1
	50-59	2	1.4
	60-69	1	0.7
	70 and above	3	2.1
Years of resident in the community	<5	20	13.8
	5-10	41	28.3
	11-15	51	35.2
	16-20	22	15.2
	21 and above	11	7.6
Religion	Christianity	128	88.3
	Muslim	9	6.2
	Traditional	4	2.8
	None	4	2.8
Occupation	Student	109	75.2
	Trader	12	8.3
	Self-employed	11	7.6
	Civil servant	4	2.8
	NLNG staff	4	2.8
	Farmer	2	1.4
	Fisherman	2	1.4
	Hunter	1	0.7

Avitourism potential of the FNP

The result of the avitourism potential of the study area is presented in Table 2, Figure 1, and Table 3. Table 2 shows that a greater percentage of the respondents found interest in bird watching (72.4%) and perceived birds to be attractive (80.0%). Most of the respondents (63.4%) believed they could visit the park just to view birds, mostly because of their genuine love for birds, their beauty, and to gain more knowledge about birds. However, only 45.5%

believed that other people visit the park just to view birds. Also, 74.5% of the respondents noted that the park has untapped potential that can be developed to become a stronger avitourism center. Figure 1 shows the pond for canoe rides (44.0%) ranked as the major tourist attraction center in the FNP, followed by the games (24.1%), while the airstrip and rest points were not perceived as attractions. Table 6 shows the bird checklist in FNP, with a total of 125 species belonging to 44 families.

Table 2: Respondents' perception of the potential of avian tourism in FNP

Parameters	Variables	Frequency	Percentage %
Why do you visit the park?	Ecotourism	114	78.6
	Avitourism	8	5.5
	Others	23	15.9
Do you find birds attractive/ beautiful?	Yes	116	80.0
	No	29	20.0
Do you have an interest in bird watching?	Yes	105	72.4
	No	40	27.6
Do you think the park can be a bird tourism center?	Yes	108	74.5
	No	37	25.5
Would you like to visit FNP to see bird?	Yes	92	63.4
	No	53	36.6
Do you think people visit FNP to view birds?	Yes	66	45.5
	No	79	54.5

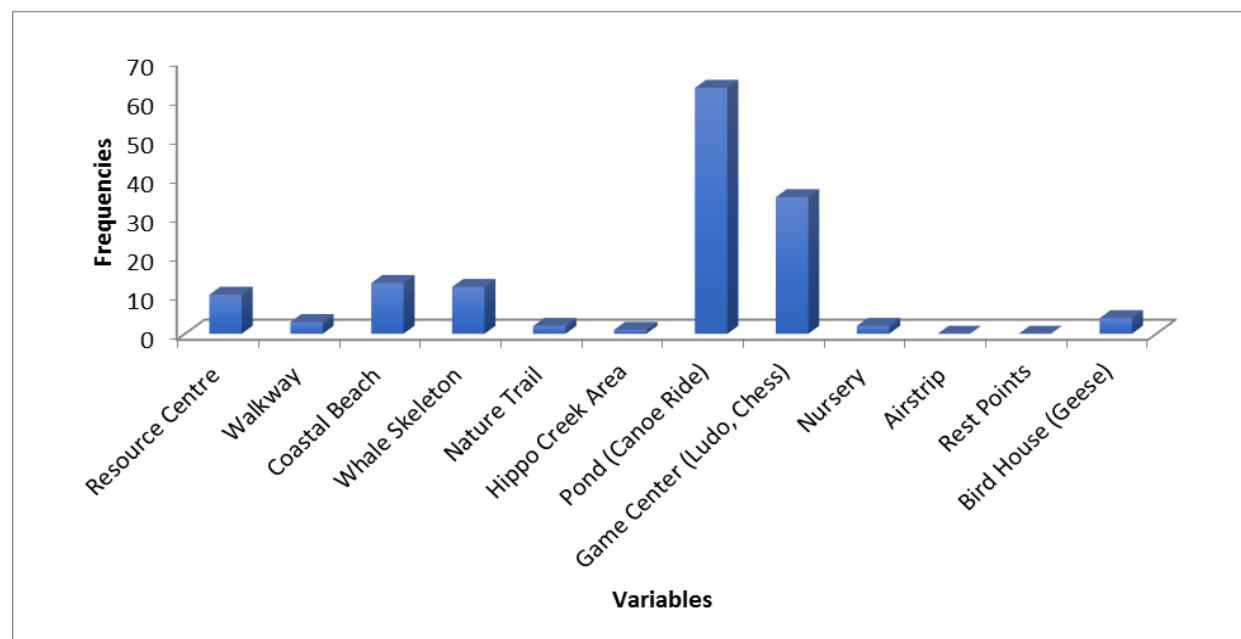


Figure 1: Selected attractions of Finima Nature Park

Table 3: Checklist of birds at FNP

SN	Family	Species	Scientific names	W	AC	AN	AM	AG	IA	N	P	E
1	Phalacrocoracidae	Reed Cormoran	<i>Phalacrocorax africanus</i>				+		+			+
2	Anhingidae	African Darter	<i>Anhinga rufa</i>				x					
3	Ardeidae	Black Heron	<i>Egretta ardesiaca</i>	+			+					
4		Black-headed Heron	<i>Ardea melanocephala</i>	+	+	+	+		+	+	+	+
5		Great Egret	<i>Ardea alba</i>	+	+							
6		Green-backed Heron	<i>Butorides virescens</i>			+						+
7		Grey Heron	<i>Ardea cinerea</i>	+						+		
8		Intermediate Egret	<i>Egretta intermedia</i>		+		+		+		+	+
9		Little Egret	<i>Egretta garzetta</i>		+							
10		Striated Heron	<i>Butorides striata</i>	+		+						+
11		Western Cattle Egret	<i>Bubulcus ibis</i>		+	+	+	+	+	+	+	
12		Western Reef Heron	<i>Egretta gularis</i>	+	+		+		+	+		+
13		Purple Heron	<i>Ardea purpurea</i>									+
14	Scopidae	Hamerkop	<i>Scopus umbretta</i>	+								
15	Ciconidae	Woolly-necked Stork	<i>Ciconia episcopus</i>		+		+		+			
16		Africa Openbill Stork	<i>Anastomus lamelligerus</i>		x				x			
17	Threskiornithidae	Sacred Ibis	<i>Threskiornis aethiopica</i>						x			
18	Anatidae	White-faced Whistling Duck	<i>Dendrocygna viduata</i>				+				+	
19		African Pygmy-Goose	<i>Nettapus auritus</i>			*						
20		Geese	<i>Branta Canadensis</i>		+							
21	Pandionidae	Osprey	<i>Pandion haliaetus</i>									+
22	Accipitridae	African Fish Eagle	<i>Haliaeetus vocifer</i>	+								+
23		African Goshawk	<i>Accipiter tachiro</i>			+						
24		Hooded Vulture	<i>Necrosyrtes monachus</i>				+					
25		Palm-nut Vulture	<i>Gypohierax angolensis</i>	+	+		+			+		+
26		Yellow-billed Kite	<i>Milvus migrans</i>	+	+	+	+	+	+			
27		Shikra	<i>Accipiter badius</i>			+						
28	Falconidae	Common Kestrel	<i>Falco tinnunculus</i>	+	+							
29	Phasianidae	Peafowl	<i>Pavo cristatus</i>		+							
30	Rallidae	African Crane	<i>Crex egregia</i>		x							
31		Black Crane	<i>Amaurornis flavirostra</i>		x							
32		White-spotted Flufftail	<i>Sarothrura pulchra</i>		+	+		+				

33	Heliornithidae	African Finfoot	<i>Podica senegalensis</i>		x	x		X				
34	Jacaniae	African Jacana	<i>Actophilornis africanus</i>		+	+				+	+	
35	Burhinidae	Senegal Thick-knee	<i>Burhinus senegalensis</i>	+				+				
36		Water Thick-knee	<i>Burhinus vermiculatus</i>	+		+			+			
37	Glareolidae	Collared Pratincole	<i>Glareola pratincola</i>									
38	Charadriidae	Grey Plover	<i>Pluvialis squatarola</i>	+								
39		Spur-winged Lapwing	<i>Vanellus spinosus</i>					+		+		
40		White Fronted Plover	<i>Charadrius marginatus</i>	x		x						
41		Kittlitz's Plover	<i>Charadrius pecuarius</i>							x		
42	Scolopacidae	Common Sandpiper	<i>Actitis hypoleucos</i>	+		+		+		+		+
43		Eurasian Curlew	<i>Numenius arquata</i>	+								
44		Little Stint	<i>Calidris minuta</i>	+								
45		Marsh Sandpiper	<i>Tringa stagnatilis</i>					+				
46		Pectoral Sandpiper	<i>Calidris melanotos</i>	+								
47		Sanderling	<i>Calidris alba</i>	+								
48		Bar-tailed Godwit	<i>Limosa lapponica</i>	+								
49		Whimbrel	<i>Numenius phaeopus</i>	+								
50		Common Greenshank	<i>Tringa nebularia</i>			x						
51	Laridae	Common Tern	<i>Sterna hirundo</i>	+								
52		Damara Tern	<i>Sternula balaenarum</i>	+								
53		Kelp Gull	<i>Larus dominicanus</i>	+								
54		Royal Tern	<i>Sterna maxima</i>	+								+
55	Columbidae	African Green Pigeon	<i>Treron calvus</i>					+				+
56		Blue-spotted Wood Dove	<i>Turtur afer</i>		+	+						+
57		Laughing Dove	<i>Spilopelia senegalensis</i>	+	+							
58		Red-eyed Dove	<i>Streptopelia semitorquata</i>	+	+			+		+		
59		Tambourine Dove	<i>Turtur tympanistria</i>								+	
60		Feral pigeons	<i>Columba livia</i>		+							
61	Psittacidae	African Grey Parrot	<i>Psittacus erithacus</i>					X		x		
62	Cuculidae	Blue Malkoha	<i>Ceuthmochares aereus</i>							+		
63		Diederik Cuckoo	<i>Chrysococcyx caprius</i>							+		
64		Senegal Coucal	<i>Centropus senegalensis</i>					+				
65	Strigidae	African Wood Owl	<i>Strix woodfordii</i>			+			+			+

66	Apodidae	African Palm Swift	<i>Cypsiurus parvus</i>				+					
67		Little Swift	<i>Apus affinis</i>			+						
68	Alcedinidae	Blue-breasted Kingfisher	<i>Halcyon malimbica</i>	+		+	+			+	+	+
69		Giant Kingfisher	<i>Megaceryle maxima</i>				+			+		
70		Pied Kingfisher	<i>Ceryle rudis</i>					+				
71		Malachite Kingfisher	<i>Alcedo cristata</i>					x			x	
72		Woodland Kingfisher	<i>Halcyon senegalensis</i>	+		+	+	+		+		
73	Meropidae	White-throated Bee-eater	<i>Merops albicollis</i>	+			+					
74	Coraciidae	Broad-billed Roller	<i>Eurystomus glaucurus</i>	+			+					
75	Bucerotidae	African Pied Hornbill	<i>Tockus fasciatus</i>						+	+		
76		Piping Hornbill	<i>Bycanistes fistulator</i>				+	+	+	+	+	
77	Capitonidae	Red-rumped Tinkerbird	<i>Pogoniulus atroflavus</i>						+		+	
78		Yellow-fronted Tinkerbird	<i>Pogoniulus chrysoconus</i>							+		
79		Yellow-rumped Tinkerbird	<i>Pogoniulus bilineatus</i>							+		
80		Yellow-throated Tinkerbird	<i>Pogoniulus subsulphureus</i>			+	+		+	+	+	
81	Picidae	Buff-spotted Woodpecker	<i>Campethera nivosa</i>							+		
82	Hirundinidae	Common House Martin	<i>Delichon urbicum</i>	+		+		+				
83		Ethiopian Swallow	<i>Hirundo aethiopica</i>	+						+		
84		Pied-winged Swallow	<i>Hirundo leucosoma</i>				+					
85		White-bibbed Swallow	<i>Hirundo nigrita</i>			+						
86	Motacillidae	Plain-backed Pipit	<i>Anthus leucophrys</i>	+				+		+		+
87		Yellow-throated Longclaw	<i>Macronyx croceus</i>					+				
88	Pycnonotidae	Common Bulbul	<i>Pycnonotus barbatus</i>	+		+	+	+		+		
89		Little Greenbul	<i>Andropadus virens</i>			+	+	+	+	+	+	
90		Little Grey Greenbul	<i>Andropadus gracilis</i>						+			
91		Red-tailed Greenbul	<i>Criniger calurus</i>							+		
92		Swamp Palm Bulbul	<i>Thescelocichla leucopleura</i>				+					
93		Yellow-whiskered Greenbul	<i>Andropadus latirostris</i>	+					+		+	
94	Sylviidae	Chattering Cisticola	<i>Cisticola anonymus</i>	+			+			+		+
95		Rattling Cisticola	<i>Cisticola chiniana</i>					+			+	
96		Grey-backed Camaroptera	<i>Camaroptera brevicaudata</i>						+			+
97		Green Crombec	<i>Sylvietta virens</i>							+		
98		Green Hylia	<i>Hylia prasina</i>			+	+		+			

N/B: AC; Access.Road, **AM;** Agalanga Nature Trail, **AG;** Agaja Market Road, Agaja Trail, **W;** Western Beach, **IA;** Industrial Area, **N;** Nature Trail, **P;** Pipeline, **E;** Eastern Beach +; sighted from resent study, x; possible habitat; Source: Adapted from Bunza et al. 2021 and FNPBA, (2019)

Respondents' perception towards birds in FNP

The result of respondents' perception of birds in the study area is presented in Table 4, Figure 2 and Table 5. The Table showed that 79.3% of the respondents love birds, while 66.9% can distinguish one bird from another. The Majority of the respondents (86.9%) perceived the FNP has a lot of birds and in support of the latter, more respondents have sighted at least four bird species in the park (54.5%) with highest sightings in the dry seasons (59.3%). Figure 2 shows that habitat destruction (37.0%) was the prevalent factor affecting birds while diseases (2.1%) are perceived as the least factor. Table 5 shows that age and religion had a positive correlation with respondents loving birds and similarly age and religion to respondent ability to identify birds. Hence, there was a significant assortment of respondents' perception with age

and religion at $p < 0.05$ while no significant correlation was observed with their love for birds against gender at $p > 0.05$ as observed in Table 5.

Perceived avitourism challenges and needs in Finima Nature Park

The results of perceived avitourism challenges and needs at FNP are presented in Figure 3 and Table 6, respectively. Majority of respondents perceived that insecurity (84.0%) around the coastal areas was a major challenge faced by the FNP. Others include inadequate tourist attractions (5.0%), bad roads (1.0%), fear of drowning (1.0%), slippery bridge (1.0%), low probability of sighting birds (1.0%) and staff attitude (1.0%). Table 3 shows improved security (80.7%) as the highest perceived mitigation needed in the FNP while avitourism research and road construction (0.7%) were the least.

Table 4: Respondents' perception towards Birds in FNP, Rivers State

Parameters	Variables	Frequency	Percentage %
Do you love birds?	Yes	115	79.3
	No	30	20.7
Can you identify birds?	Yes	97	66.9
	No	48	33.1
Do you think Finima Nature Park have a lot of birds	Yes	115	86.9
	No	19	13.1
Average birds' sightings per trip	1	9	6.2
	2	16	11.0
	3	41	28.3
	4 and above	79	54.5
Season with most bird sighting?	Rainy	45	31.0
	Harmattan	14	9.7
	Dry	86	59.3

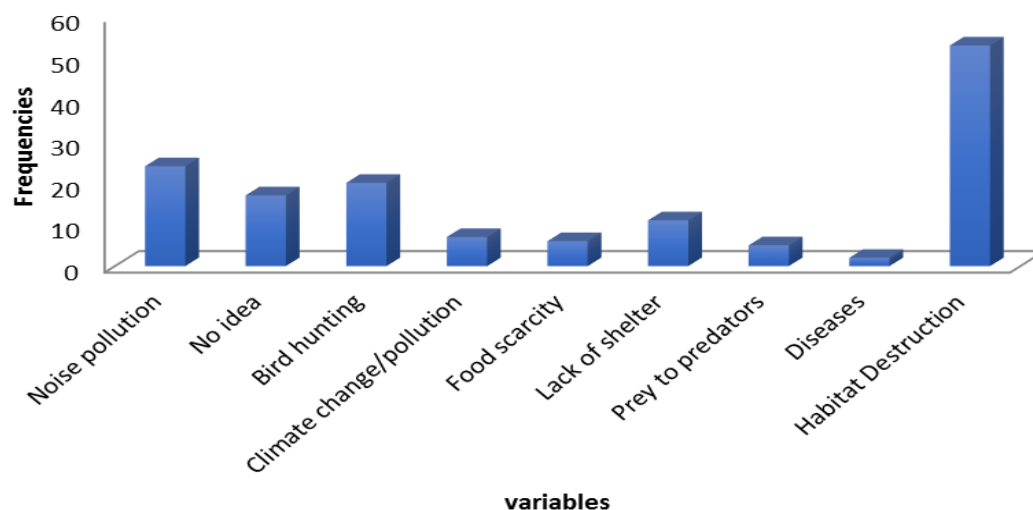
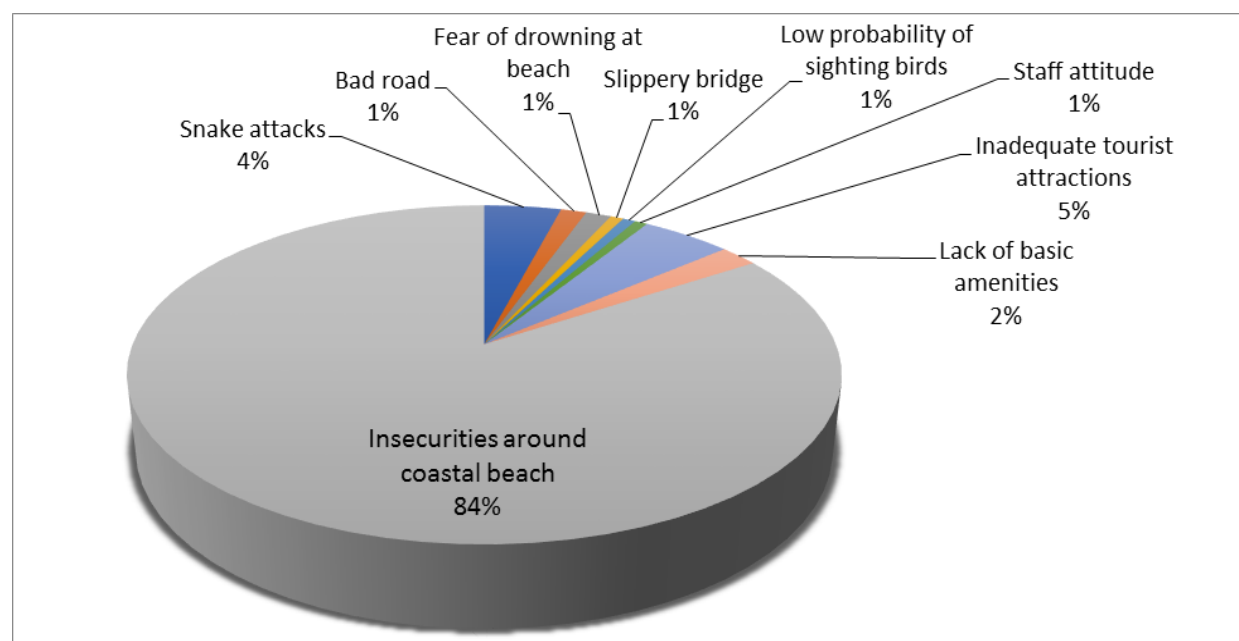


Figure 2: Respondents perceived factors affecting birds at FNP

Table 5: Correlation test of relationship

Variable	Spearman Coefficient of correlation (r)	Sig.
Gender+Do you love birds?	-0.102	0.244
Age+Do you love birds?	0.450	0.000*
Age+Bird identification	0.310	0.000*
Religion+Do you love birds?	0.362	0.000*
Religion+Bird identification	0.393	0.000*

NB: * shows significance at $p < 0.05$

**Figure 3:** Challenges of avitourism in FNP**Table 6:** Needs for improved avitourism by respondents in FNP, Rivers State

Variable	Frequency	Percentage
Birdhouse/zoo	12	8.3
Literature on nature	6	4.1
Souvenirs	4	2.8
Provision of shelter	2	1.4
Improved staff attendance	2	1.4
Avitourism research	1	0.7
Road construction	1	0.7
Improved Security	117	80.7

DISCUSSION

The result of the demographic characteristics of the tourists that visited FNP shows the majority of the respondents were mostly females and natives of Bonny Island who have lived in the community for over a decade and were less than twenty years of age. The implication of the

result of the demographic characteristics of the tourists that visited FNP, who were mostly female students and natives who have lived over a decade in the Bonny Island, shows that there is a growing need for tourism activities among youths and that the gender bias towards the girl child as popularly reported in Africa is gradually

eroding. More importantly, religion was a significant factor in bird watching, as reflected by the result, but this does not imply that other religions other than Christianity don't engage in birding activities. Rather, the result is a reflection of a group with Christianity as the major religion, as seen in other parts of southern Nigeria.

Our finding, however, disagree with Ijeomah and Duke (2016) on the prospects and sustainability of ecotourism in Finima Nature Park, Bonny Island, Rivers State, Nigeria, which had more male visitors who visited the park from the bordering communities and were within the age bracket of 21–40 years old, while age 20 years was the second most prevalent age category. More so, the student was second only to fishing as an occupation for people who visited the park. This disparity may be attributed to the fact that Ijeomah and Duke (2016) considered the socioeconomic demographics of the tourists from park-bordering communities, while this result specifically surveyed those who were present at the park at the time of the survey.

In addition, secondary school students who visited the park most as a result of extracurricular activities in our survey may be responsible for the age and occupational disparity. Nevertheless, the result agrees with Ijeomah and Duke (2016) on the nativity of the tourists who have visited FNP. The result on gender and occupation of respondents in the study may be a reflection on the communities bordering the park, and this agrees with Oladeji *et al.* (2012) survey at Old Oyo National Park and Ajayi and Eveso's (2017) survey at Okomu National Park, which showed that tourist gender who patronized the various parks was skewed towards female and that the occupation of tourists was mostly secondary school students.

The research's findings imply that the study area has significant potential for avitourism. Avitourism, which includes leisure activities based on bird viewing, is a burgeoning sector that draws nature lovers and bird enthusiasts from all over the world. The majority of survey participants thought that observing birds was an appealing and fascinating hobby. This is an important finding since it indicates that the study area may have a market for avitourism. This potential is further strengthened by the fact

that many respondents really appreciated birds' beauty and expressed a wish to learn more about them. Also, the majority of respondents believe that the park has untapped potential that can be developed to become a stronger avitourism center. To realize this potential, however, more development and marketing of the park and its attractions are required. This suggests that there is a need for further development and promotion of the park as an avitourism destination. It is worthy of note that Finima Nature Park Bird Club organizes birding activities and educates its members on birds and conservation. The park's large number of wild birds and few introduced birds make it a good place for bird viewing and research. The park has a variety of microhabitats that are favorable to birds and relaxation.

The result of respondents' knowledge and perception of birds in the study area shows that the majority of the respondents love birds and can differentiate one bird from another, which may be attributed to the fact that local people have a good knowledge of their environment and what is available therein. The tourists perceived habitat destruction as the most prevalent factor affecting birds compared to other factors. This conforms with Agorye *et al.* (2016), who reported the park's core area reduction to 634.43ha due to habitat encroachment and fragmentation. Nevertheless, the park management has intensified efforts to curb this menace by engaging in reforestation and policing. Also, the ability of most respondents to differentiate one bird from another and the identification of habitat destruction as the most prevalent factor affecting birds may imply that tourists can learn more and cohabit with birds, thereby having the consciousness to protect birds and birding activities.

The result of the most prevalent perceived challenges in Finima Nature Park was insecurity around the coastal beach, followed by inadequate tourist attractions, and improved security was perceived as the greatest mitigation needed in the FNP. This finding agrees with Ijeomah *et al.* (2014), who identified insecurity as one of the many other challenges facing coastal tourism. However, the result disagrees with Ijeomah and Duke (2016) and Ijeomah and Odunlami (2016), who identified insecurity as

the least challenging challenge of the FNP as perceived by tourists. This variation may be attributed to the different periods of the survey, as insecurities (kidnapping, sea piracy, and organized armed robbery) have continually increased in the Niger Delta Region in recent times.

CONCLUSIONS

Birding is an important tourism event for nature lovers. The whistling, singing, and colorful nature of birds, unlike other wildlife, has placed them on a higher pedestal of admiration. The park has numerous bird species of high conservation value, such as the Hooded Vulture and African Grey Parrot. The Palearctic migrants around the western beach and the relatively high number of bird species in the park add to the avian tourism potential of the FNP. The park operates on a free gate fee for visitors as one of their mandates is to educate local people on ecological conservation education, and there has been high patronage of the park by tourists, especially secondary school students. This raises hope for avitourism as an effective management and conservation tool for avifaunal resources in the park. Very little is known by visitors to FNP about avitourism, though a bird club has been established at the park for over two years. There is a need to boost visitors' awareness of the avitourism richness of the site via tour guides who will provide needed interpretation. The study recommends improved security, especially around the coastal beach, the creation of more tourist attractions such as the hanging bridge, and the promotion of the park as an avitourism destination.

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