



## ASSESSMENT OF WILDLIFE RESOURCES FOR ECOTOURISM DEVELOPMENT IN TWO ZOOLOGICAL GARDENS IN SOUTHWESTERN NIGERIA.

\*Ayanniyi, O.A., Mustafa, M.O., Olowoyo, F.B., Ayeni, O.H., & Chiawa, O.C.

Department of Forest Technology, Federal College of Forest Resources Management Ishiagu

\*Correspondence: [ayanniyioluwadmilola@gmail.com](mailto:ayanniyioluwadmilola@gmail.com) 08055135826

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### Abstract

This paper focused on assessing the wildlife resources in zoological gardens for ecotourism development. Information was collected from visitors and staff at the University of Ibadan Zoological Garden (UIZOO) and Obafemi Awolowo University Zoological Garden (OAUZOO) through a structured questionnaire. A total of one hundred and thirty-eight copies of questionnaire was administered with eighty in (UIZOO) and fifty-eight in (OAUZOO) to visitors and staff. Data were analysed with the use of descriptive statistics. The result revealed that UIZOO has sixty different species of animals with a total of one hundred and fifty nine animals while OAUZOO has nineteen species of animals with a total of sixty five animals. Majority of the respondents at both zoological gardens were male UIZOO (55.7%) and OAUZOO (56%), they were in the age range of 15-25, and 26 to 36. A high percentage of the respondents at UIZOO (78.6%) and OAUZOO (84%) visit the zoo mostly for recreation and relaxation. The result revealed that UIZOO (50.0%) and OAUZOO (32%) were not impressed with animal species, population and infrastructural facilities in the two zoological gardens, there is need to increase the number of animals and also improve the standard and quality of infrastructural facilities in the two gardens as this will increase tourist influx. There is need to publicize zoological gardens in Nigeria to develop ecotourism.

**Keywords:** Zoological Garden, Ecotourism, Wildlife, Population, Animal species

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### Introduction

Nigeria is blessed with abundant wildlife species but it is bound to deplete if not managed on a sustainable basis (Ajayi and Ayodele, 1995). The development of ecotourism in Nigeria can be traced back to 1889, when the colonial government took steps to establish the first forest reserve in the colony of Lagos. Since then, the number of protected areas in Nigeria had increased greatly and expanded to include forest reserves, wildlife sanctuaries, game reserves, strict nature reserves communal forest and recently national parks (Aremu, 2001). The establishment of these protected areas came as a response to an adverse trend, especially within the last 80 years, when environmental degradation set in. By the mid-1980s, it had become an established fact that Nigeria had approximately lost 90% of her original tropical rain forest cover to logging, bush burning, virtually the remaining 10% of these important resources is now located in Cross River State of Nigeria (Aremu, 2001). The first national park in Nigeria, Kainji Lake National Park, came into being in 1979, and today we have seven national parks and over sixty game and forest reserves in Nigeria created in line with government policy on the preservation of our natural heritage (Ayodele and Falade, 1990). These resources constitute the major pillars of the Nigerian eco-tourism industry. Some eco-tourism facilities however exist other than those established by the government all over the country. These include nature conservation initiatives by Non-Governmental Organizations such as Lekki Conservation Centre in Lagos, the Gorilla Refuge and conservation Education Centre at Obudu Plateau, Obudu Mountain Resort, the Drill Rehabilitation and breeding Centre at Afi Forest, Zoological garden and Botanical garden (Ayodele and Falade, 1993).

Ecotourism involves encounter with non-domesticated animals either in their natural environment or in captivity. It includes a wide range of activities such as bird watching, whale watching, visiting zoos, recreational fishing and hunting (Melleye, 1991). Wildlife based tourism is non consumptive use of wild resources to benefit human population (Barnes *et al.*, 1992). Barnes *et al.* 1992) went further to note that wildlife tourism, if sensitively managed, offers a nation the chance to develop a high value added industry that simultaneously protect wildlife by removing or reducing the incentive or export wildlife for consumptive uses. Eco-tourism sensitizes people to the beauty of nature and also satisfies several general criteria including conservation of biological diversity and cultural diversity through ecosystem protection (Martha and Honey, 2000).

Wildlife conservation in zoo and game reserve are sources of revenue, aesthetic recreation, education, employment and scientific value (Adams and Salome, 2014). The number of animal species whose existence is threatened is increasing at an alarming rate mostly due to rapid world population increase, hence there is need to conserve the environment and the diversity of species. This gives enough justification of our conservation of plants and animal species ex-situ by botanical and zoological garden (Ayodele *et al.*, 1999). Zoological garden is a form of ex-situ conservation, which involves conserving and maintaining the genetic resources outside its area of origin or occurrence (Ayodele *et al.*, 1999). Zoo can be defined as a place where wild animals and strange domestic animals are kept and exhibited to the public (Ajayi and Ayodele, 1995). They are educationally planned and oriented life animal displays, presented to the visitors in the most aesthetically pleasing, interesting

and naturalistic context. The role of zoo has changed structurally by responding to the pressure on wildlife and also on cultural values (Sterling *et al.*,2007). The objectives of zoological garden are recreation, education, captive breeding, and economic research.

Therefore, the assessment of wildlife resources in zoological gardens is very crucial for the promotion of eco-tourism. Effective management of wildlife resources and their habitat must be taken with utmost seriousness to obtain maximum returns and at the same time preserve them sustainably for future generations (Buckey, 2014). This research work seeks to assess the wildlife resources and ecotourism potentials of University of Ibadan and Obafemi Awolowo Zoological gardens.

**Materials and Methods**

**Study Areas**

**University of Ibadan Zoological Garden**

The University of Ibadan Zoological Garden is situated some 3km to the North of the city of Ibadan, Oyo state, Nigeria at latitude 7°26' N and longitude 3°53' E and a mean altitude of 227m above sea level. The garden was established in 1948 primarily as a menagerie, and it later became a full-fledged zoo in 1974. The garden welcomes a large number of visitors from far and near all year round and is home to a wide array of animals comprising mammals birds, reptiles, about 95% are native to Africa. The animals are housed in metal and concrete cages in small units and according to behavioural patterns and species. The topography of the University of Ibadan zoological garden is both sandy-loam and loamy soil (Aderenle, 1993), further observations shows that soil under the tree canopies would be expected to be rich in potassium since leaching or erosion is reduced to the barest minimum by the canopy cover. The kind of soil found in a location within the zoo determines the site selection for particular species of animal. For example, lion (*Panthera leo*) is located in a bit rocky side of the zoo while the paddock's of herbivores are sited close to the stream due to ecological reasons. The zoo opens 7days a week, 365 days a year from 8am to 6:30pm (Student Information Handbook, 2012)

**Obafemi Awolowo Biological Garden**

Obafemi Awolowo University is situated in Ile-Ife, an ancient city in the South Western part of Nigeria (OsunState). The zoo lies on latitude 7.4669°N and longitude 4.5669°E. The vegetation in its natural state consists of tall trees with thick undergrowth of shrubs and intertwining climbers, which make it impenetrable. The area lies in the dry deciduous forest zone. Obafemi Awolowo University zoological garden was established in 1956 to support the Department of Zoology and it was opened to visitors in 1964 for recreation, education and other related purpose (Olawuyi, 2021). The zoo is located in front of faculty of Environmental Design and Management.

**Data Collection**

Information was collected from visitors and staff at both zoological gardens through the use of structured questionnaire. The secondary source includes oral interview, extraction of information from materials such as books, journals and the internet.

**Sample and Sampling Techniques**

The population studied comprised of visitors and staff of University of Ibadan and Obafemi Awolowo University gardens in South-West, Nigeria. Simple random sampling was used to select the staff and visitors in the University of Ibadan and Obafemi Awolowo University zoological gardens. A total number of one hundred and thirty eight (138) respondents were used for the study, with seventy in University of Ibadan zoological garden due to the fact that the garden has the highest flock of visitors and fifty in Obafemi Awolowo zoological garden also ten staff was selected from University of Ibadan zoological garden and eight from Obafemi Awolowo University zoological garden (this is because the number of staff are not up to ten)

**Data Analysis**

Data obtained from the staff and visitors were analysed using descriptive statistics. The analysis of research questions was done using the formula

$$\text{Percentage\%} = \frac{\text{number of responses}}{\text{Total no. administered}} \times 100$$

**Result**

**TABLE 1: Demographic characteristics of UI and OAU staff**

Variables	Frequency UI (n=10)	Percentage (100%) UI	Frequency OAU (N=8)	Percentage (100%) OAU
<b>Sex</b>				
Male	8	80	5	62.5
Female	2	20	3	37.5
<b>Educational status</b>				

Variables	Frequency UI (n=10)	Percentage (100%) UI	Frequency OAU (N=8)	Percentage (100%) OAU
Secondary	3	30	2	25
Tertiary	7	70	6	75
<b>Age</b>				
21-30 years	2	20	1	12.5
31-40years	7	70	5	62.5
41-50years	1	10	2	25
51 and above	0	0	0	0
<b>Marital status</b>				
Single	3	30	2	25
Married	6	60	6	75
Divorced	1	10	0	0
Widow/widower	0	0	0	0

Source: Field Survey (2021)

Table 1 shows the result obtained of the demographic characteristics of the sampled staff respondents from the both zoo. The result revealed that 80% of University of Ibadan Zoo staff were male and 20% were female. Also, 62.5% of Obafemi Awolowo University Zoo staff were male and 37.5% were female.

In terms of educational status, majority of the University of Ibadan Zoo staff had tertiary education (70%) and the remaining 30% had secondary education. Similarly, 75% of OAUZOO staff had tertiary education while 25% had secondary education. In terms of age, 70% of University of Ibadan staff falls between age 31 and 40 years while 20% were between 21 and 30 years and 10% were between age 41 and 50 years. The result shows that the majority of University of Ibadan (60%) and Obafemi Awolowo (70%) zoo staff were married. Also, 30% of UIZOO staff were single and 10% divorced while 25% of OAU zoo staff were single.

**Table 2: Feeding regime of animals in UI and OAU zoological garden**

	UI zoo	OAU zoo
Birds	Once per day	Once per day
Primate	Twice per day	Twice per day
Herbivore	Twice per day	Once per day
Carnivore	Thrice per day	Once/twice per day
Reptile	Twice per week	Once per week

Source: Field Survey (2021)

The result shows the feeding regime of the two gardens. Birds (granivorous) were fed with grains and are fed once per day, Carnivorous birds were fed with flesh or intestine of goats. Some birds were also fed with cooked beans, boiled yam and palm oil. Primates like Monkey, Baboon, and Chimpanzee were majorly fruit eaters (frugivore) are fed twice daily in the morning around 9:00am and in the afternoon around 3pm with varieties of fruits like banana, pineapple, pawpaw, apples, oranges, and watermelon etc at the two gardens. Herbivores such as horse, giraffe and donkey are fed twice per day, in the morning and evening with grasses (elephant grass, Bahamas grass, etc), shrubs and herbs.

Carnivorous animals(animals that feed on flesh of other animals) animals like Lion, Hyena, Jackal etc, Lions are fed with slaughtered goats and are fed thrice a week (Monday, Wednesday and Saturday) around 10am in the University of Ibadan zoological garden. In ObafemiAwolowo University zoological garden, Lions are fed once and twice a week and this is due to unavailability of enough funds to support the zoo, Reptiles are fed twice per week in UIZOO with a day old chick, eggs, white rat. In OAUZOO, reptiles are fed once a week. In University of Ibadan Zoological garden, there are Warthogs and Domestic Pig which are fed with both flesh and fruits because they are Omnivorous animals.

**Table 3: Increase or decrease in animals.**

		UI ZOO	OAU ZOO
Number of Animals	Increasing	7(70%)	2(25%)
	Not Increasing	3(30%)	6(75%)

Source: Field Survey (2021)

The result revealed that animals of University of Ibadan were increasing over the years. Most (70%) of the staff agreed that the animals were increasing while 30% said the animals were not increasing. But OAU zoo animals seem not to be increasing, 75% of the staff said they were not increasing while 25% oppose that they were increasing.

**Table 4: Suggested animals that can attract visitors**

		UI zoo	OAU zoo
Suggested animals that can attract visitors	Elephant	8 (80%)	8 (100%)
	Antelope	5 (50%)	-----
	Hippo	2 (20%)	4(50%)
	Gorilla	4 (40%)	6 (75%)
	Leopard	8(80%)	1(12.5%)
	Zebra	4(40%)	2(25%)

Source: Field Survey (2021)

Table 4 shows the list of animals suggested by the staff that could possibly increase the tourist/ visitor's influx. Majority( 80%) of the University of the Ibadan zoo staff stated that if the management could bring in Elephant, the rate at which visitors will patronize the garden will increase, 40% said gorilla,80% said leopard, and 40% said Zebra, 50% said antelope, 20% said hippopotamus, All Obafemi Awolowo University zoo staff indicated that having an elephant in the garden will increase the tourist influx, 50% said Hippopotamus,75% said gorilla, 12.5% said leopard, while 25% said Zebra.

#### Results on the demographic characteristics of the visitors at UI and OAU zoological garden

**Table 5: Demographic characteristics of visitors**

		UI zoo (n=70)	OAU zoo (n=50)
Sex	Male	39 (55.7%)	28(56%)
	Female	31(44.3%)	22(44%)
Educational status	Primary	2 (2.9%)	0 (0%)
	Secondary	13 (18.6%)	11 (22%)
	Tertiary	54 (77.1%)	36 (51.4%)
	Vocational	1 (1.4%)	3 (6%)
	No response	0 (0%)	0 (0%)
Age	15-25	34(48.6%)	21 (42%)
	26-36	27 (38.8%)	18 (36%)
	37-47	6 (8.8%)	7 (14%)
	48-58	2 (2.9%)	4 (8%)
	59 and above	1 (1.4%)	0 (0%)
Marital status	Single	46 (65.7%)	31 (62%)
	Married	20 (28.8%)	16 (32%)
	Divorced	0 (0%)	1 (2%)
	No response	4 (5.71%)	1 (2%)
Occupation	Students	44 (62.9%)	15 (30%)
	Teachers	5 (7.1%)	4 (8%)
	Researchers	8 (11.4%)	7 (14%)
	Retirees	1 (1.4%)	0 (0%)
	Corp member	8 (11.4%)	13 (18.8%)
	Clergy	1(1.4%)	2 (4%)
	Others	3 (4.3%)	7 (14%)
Nationality	Nigerian	68 (97.1%)	50 (100%)

Non Nigerian	2(2.9%)	0(0%)
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Source: Field Survey (2021)

Table 5 shows the results of the demographic characteristics of the respondents from both zoos. Majority of the respondents were male at both zoological gardens; UIZOO (55.7%) OAUZOO (56%) while female were (44.3%) in UIZOO and(44%) in OAUZOO. In terms of educational qualifications, most of the respondents were literate with (77.1%) having tertiary education at UIZOO and (51.45%) at OAUZOO, while for secondary education, (18.6%) in UIZOO, (22%) in OAUZOO and the least were primary. Most of the respondents were single with (65.7%) in UIZOO and (62%) in OAUZOO, followed by married people with UIZOO (28.8%) and OAUZOO (32%). For the age categories, the age range 15-25 has the highest percentage at both zoos with UIZOO (48.6%) and OAUZOO (42%) followed by 26-36 UIZOO (38.8%) and OAUZOO(36%). This means most of the respondents were youth. The respondents were mostly students UIZOO (62.9%) and OAUZOO (30%) followed by corp members UIZOO (11.4%) and OAUZOO (18.8%).This means that the students visit the zoo more for educational purposes. In terms of nationality, majority of the respondents at both zoos were Nigerian UIZOO (97.15%) and OAUZOO (100%).

**Table 6: Visitation rate and visitors perception**

		UI zoo (n=70)	OAUzoo (n=50)
<b>Frequency of visit</b>	Once in a while	33 (47.1%)	19 (38%)
	Often	8 (11.4%)	1 (2%)
	Rarely	4 (5.7%)	3 (6%)
	First time	25 (35.8%)	27 (54%)
<b>Purpose of visit</b>	Recreation and relaxation	55 (78.6%)	42(84%)
	Education and research	8 (11.4%)	7(14%)
	Know about the garden	5 (7.1%)	1 (2%)
	Others	2 (2.9%)	0 (0%)
<b>Visit to other zoos</b>	Yes	49 (70%)	42 (84%)
	No	21 (30%)	8 (16%)
<b>Visitors view</b>	Impressed	35(50%)	16 (32%)
	Not impressed	35 (50%)	34 (68%)
<b>Visitors satisfaction</b>	Satisfactory	57 (81.4%)	31(62%)
	Unsatisfactory	13 (18.6%)	19(38%)

Source: Field Survey (2021)

The result shows that 47.1% of the respondents of UIZOO and 38% of OAUZOO visits once in a while, 35.8% of the respondents of UIZOO and 54% of OAUZOO were visiting for the first time. For the purpose of visit, 78.6% of respondents of UIZOO and 84% of OAUZOO visit for recreation and relaxation, 11.4% in UIZOO and 14% in OAUZOO visits for research and educational purpose. Majority of the respondents visits for recreational purpose. Most (70%) of the respondents at UIZOO and 84% of OAUZOO have visited other zoos, 30% of respondents of UIZOO and 16% OAUZOO stated that they have not visited any other zoo. Also, 50% of UIZOO and 32% of OAUZOO respondents were impressed with the species and population of animals sighted in the zoo while 50% of UIZOO and 68% of OAUZOO respondents said they were not impressed. In addition, 81.4% of UIZOO and 62% OAUZOO respondents were satisfied with the tourist facilities in the zoo while 18.6% of UIZOO and 38% of OAUZOO respondents said they were not satisfied with the tourist facilities.

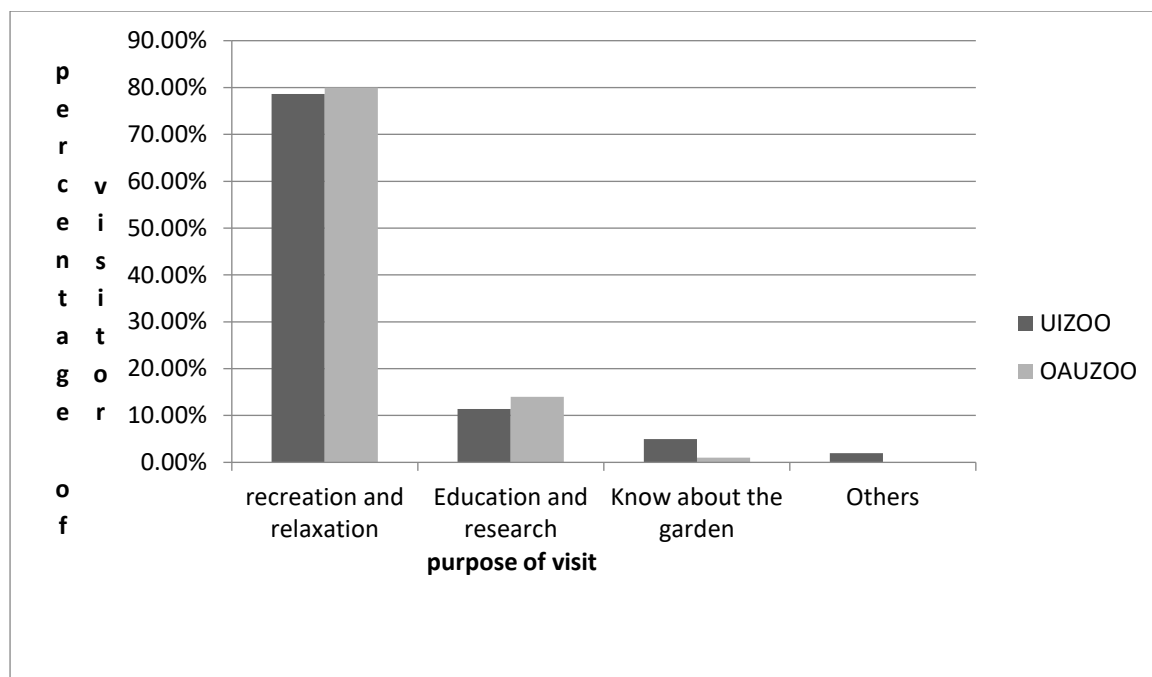


Figure 1: purpose of visiting the zoological garden

Table 7: Visitors perception about the animal

		UI zoo (n=70)	OAU zoo (n=50)
<b>Animals that attracted the respondents</b>	Snake	4 (5.7%)	6 (12%)
	Lion	32 (45.7%)	18 (36%)
	Monkey/Baboon/Chimpanzee	10 (14.3%)	10 (20%)
	Birds	9 (12.9%)	3 (6%)
	Ostrich	2 (2.9%)	3 (6%)
	Donkey	6 (8.7%)	0 (0%)
	Others	7 (10%)	10(20%)
	<b>Animals the visitors would love to see on their next visit</b>	Elephant	33 (47.1%)
Zebra		10 (14.2%)	6 (12%)
Gorilla		5 (7.1%)	5 (10%)
Hippopotamus		2 (2.9%)	1 (1.4%)
Neutral		20 (28.6%)	13 (26%)
<b>Tendency to revisit</b>	Yes	51 (72.9%)	29 (58%)
	No	19(27.1%)	21 (42%)

Source: Field Survey (2021)

For the animals that attracted the visitors, results showed that majority of the respondents of both zoos came to zoo to see the lion; UIZOO 45.7% and OAUZOO 36%.Most of the respondents of the two gardens got attracted to the lion because of its scary look, while some came to see how the lion run after, catch, kill and feed on its prey. Also majority of the respondents of the two zoos would prefer to see an elephant on their next visit to the zoo, UIZOO (47.1%) and OAUZOO (56%).Majority of

the respondents in UIZOO (72.9%) and OAUZOO (38%) said they would like to revisit the zoo, while some respondents in UIZOO (11.4%) and OAUZOO(14%) OAUZOO respondents said they would not like to revisit the zoo due to inadequate animal, poor tourist facilities or poor infrastructural development.

**Table 8: fauna resources in University of Ibadan zoological garden**

S/N	Name of animal	Scientific name	Total
	Aves		
1	African grey Parrot	<i>Psittacuseri thacus</i>	1
2	Purple Swamp hen	<i>Porphyro porphyro</i>	5
3	Owl	<i>Athene noctua</i>	4
4	Spur-winged Goose	<i>Plectropterus gambensis</i>	3
5	White Geese	<i>Chen caerulesucens</i>	4
6	Brown Pelican	<i>Pelecanus occidentalis</i>	2
7	Marabou Stork	<i>Leptoptilos crumeniferus</i>	2
8	Lizard Buzzard	<i>Kaupifalco monogrammicus</i>	1
9	Budgerigar	<i>Melopsiitacus undulates</i>	4
10	Senegal Parrot	<i>Poicephalus senegalus</i>	4
11	Mallard Duck	<i>Anas platyrhynchos</i>	6
12	White Peacock	<i>Pavocristatus muticus</i>	2
13	Vulture	<i>Necrosyrtes monachus</i>	1
14	Laughing Dove	<i>Spilopelia senegalensis</i>	3
15	Speckled Pigeon	<i>Columba guinea</i>	2
16	Rose- Ringed Parakeet	<i>Psittacula krameri</i>	2
17	Emu	<i>Dromaius novaehollandie</i>	1
18	Ostrich	<i>Struhio camelus</i>	3
19	Peafowl	<i>Pavo cristatus</i>	3
20	White Stork	<i>Ciconia ciconia</i>	3
21	Crown Cane Bird	<i>Balearica pavonina</i>	2
22	Rose- faced Bird	<i>Agapornis roseicollis</i>	2
	MAMMALS		
23	Camel	<i>Camelus aromedarius</i>	1
24	Horse	<i>Equus caballus</i>	4
25	Giant eland	<i>Taurotragus derbianus</i>	2
26	Donkey	<i>Equus asinus</i>	2
27	Maxwell duiker	<i>Cephalophus maxwelli</i>	2
28	Dorcas Gazelle	<i>Gazellae dorcas</i>	2
29	Warthog	<i>Phacochoerus africanus</i>	1
30	Giraffe	<i>Giraffa camelopardalis</i>	1
31	Lion	<i>Panthera leo</i>	5
32	Chimpanzee	<i>Pan troglodytes</i>	2
33	Spotted Hyena	<i>Crocota crocuta</i>	1
34	Stripped Hyena	<i>Hyaena hyaena</i>	2
35	Common Jackal	<i>Canis aureaus</i>	2
36	Domestic Pig	<i>Sus scrofa</i>	9
37	Mona Monkey	<i>Cercopithecus mona</i>	3
38	Rabbit	<i>Oryctolagus cuniculus</i>	2
39	Cane rat	<i>Thryonomys swinderianus</i>	3
40	Crested Porcupine	<i>Hystrix hystrix</i>	2
41	Giant Rat	<i>Cricetomysgambianus</i>	2
42	Civet Cat	<i>Civettictis civetta</i>	1
43	Drill Monkey	<i>Mandrillus synix</i>	2
44	Patas Monkey	<i>Erythrocebus patas</i>	5
45	Mangabey Monkey	<i>Cercocebus torquatus</i>	3
46	Green Monkey	<i>Cercocebuss abaeus</i>	8
47	White Monkey	<i>Cercopithecus erythrogaster</i>	1
48	Anubis baboon	<i>Papio anubis</i>	6
	REPTILES		
49	Royal python	<i>Python regius</i>	3
50	Monitor Lizard	<i>Varanus veranus</i>	4
51	Gaboon Vipers	<i>Bitis gabonica</i>	1

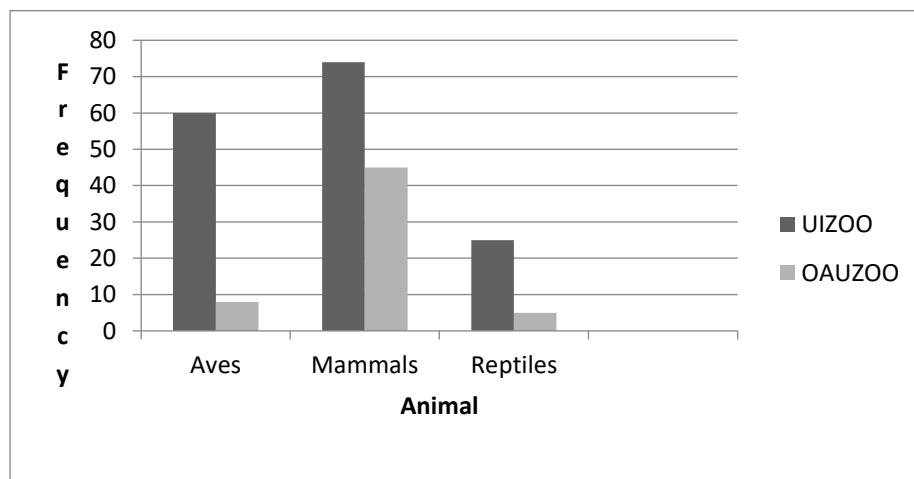
S/N	Name of animal	Scientific name	Total
52	African crocodile	<i>Osteolamus tetraxis</i>	1
53	Nile Crocodile	<i>Crocodylus niloticus</i>	4
54	Land Tortoise	<i>Terrapene carolina</i>	1
55	Water Snake	<i>Nerodiar hombifera</i>	1
56	Black Cobra	<i>Naja naja</i>	1
57	Black Splitting Cobra	<i>Naja nigricollis</i>	1
58	Common adder	<i>Causus rhombeatus</i>	2
59	Soft Shelled turtle	<i>Trionyx trionyx</i>	3
60	African Python	<i>Python sebae</i>	2

Source: Field Survey (2021)

**Table 9: fauna resources in Obafemi Awolowo zoological garden**

S/N	NAME OF ANIMAL	SCIENTIFIC NAME	TOTAL
<b>AVES</b>			
1	Ostrich	<i>Struthio camelus</i>	1
2	Guinea fowl	<i>Numida meleagris</i>	1
3	Peacock	<i>Pavo cristatus</i>	2
4	White geese	<i>Chen caerulesucens</i>	1
5	Duck	<i>Porphyrio porphyrio</i>	2
6	Crown crane bird	<i>Baleari capavonica</i>	1
<b>REPTILES</b>			
7	Rock python	<i>Python sebae</i>	1
8	Soft –Shell turtle	<i>Trionyx triungus</i>	2
9	Tortoise	<i>Terrapene carolina</i>	1
10	Dwarf Crocodile	<i>Osteolamus tetraxis</i>	1
<b>MAMMALS</b>			
11	Mona Monkey	<i>Cercopithecus mona</i>	2
12	Stripped Hyena	<i>Hyaena hyaena</i>	1
13	Civet cat	<i>Civettictis civetta</i>	1
14	Baboon	<i>Papio anubis</i>	1
15	Rabbit	<i>Oryctolagus cuniculus</i>	12
16	White/Albino rat	<i>Rattus albus</i>	22
17	Patas Monkey	<i>Erythrocebus patas</i>	1
18	Maxwell Duiker	<i>Cephalophus maxwelli</i>	1
19	Lion	<i>Panthera leo</i>	2

Source: Field Survey (2021)



**Figure 2: Frequency distribution of animal population in UIZOO and OAUZOO**

Figure 2 shows the total number of animals in University of Ibadan and Obafemi Awolowo zoological gardens. In UIZOO, there are 60 birds, 74 mammals (primates, herbivores and carnivores) and 25 reptiles making a total of 159 animals in UIZOO. There are 12 birds, 45 mammals (primates, herbivores and carnivores) and 8 reptiles making total of 65 animals



#### **Flora Species in University of Ibadan zoological garden**

The dominant species within University of Ibadan Zoological Garden includes: *Musa sapientium*, *Hura crepitans*, *Elaeis guineensis*, *Mangifera indica*, *Terminalia catapa*, *Bambusa vulgaria*, *Eucalyptus globulus*, *Elaeis species*

#### **Facilities and structures in University of Ibadan zoological garden**

Tourists facilities and structures at University of Ibadan zoological garden include Museum, picnic site, restaurant and children zoo

#### **Flora resources in ObafemiAwolowo University zoological garden.**

*Terminalia ivorensi*, *Gmelina arborea*, *Eucalyptus torrelliana*, *Triplochiton scleroxylon*, *Millicia excels*, *Mangifera indica*

#### **Facilities and structures in Obafemi Awolowo University zoological garden**

The relaxation site is located at the extreme part of the zoo with several bamboo chairs for tourist/ visitors to rest

#### **Discussion**

This paper focused on the assessment of wildlife resources for ecotourism development in zoological gardens and the selected zoological gardens were University of Ibadan zoological garden (UIZOO) and Obafemi Awolowo zoological garden(OAUZOO). According to findings, majority of the respondents were male, UIZOO(55.7%) and OAUZOO (56%) and they were in the age range 15 to 25 UIZOO (48.6%), OAUZOO (42%)and 26-36, UIZOO (38.8%) and OAUZOO (36%) this means majority of the respondents were youth, and this could be due to the fact that , the youths are in their active years are more adventurous and fun seeking than the older ones and it agrees with Yager *et al.* (2015) findings which says people at that stage are curious to learn and pursue their interest. From the study, it was shown that students, UIZOO (62%) and OAUZOO (30%) visit the zoo more compared to other professions like teachers, researchers etc., It could be due to the fact that both zoological gardens are situated in a University premises. Also, from the findings, it is shown that most of the respondents in UIZOO (78.6%) and OAUZOO (84%) visit the zoo mostly for recreation and relaxation and (11.4%) in UIZOO, 14% in OAUZOO for education and research. This also agrees with Puan and Zakaria (2007) findings that despite the public understanding that zoos can be centres of conservation, the top motivation for visiting the zoo is still for recreational purpose. In this study, it is shown that majority of the respondents, UIZOO (70%) and OAUZOO (84%) have visited other zoos, while, 30% of UIZOO and 16% in OAUZOO have not visited other zoological gardens. There is need to publicize most zoological gardens in Nigeria to develop ecotourism. Also, among the sections indicated by the respondents, Visitors mostly preferred the carnivore section the most as they love to watch the animals especially when they are being fed, followed by other sections such as the herbivore, reptile, primate due to different factors such as behaviour, appearance and display. In terms of abundance of species on display, UIZOO has sixty (60) different species of animals with a total of one hundred and fifty-nine (159) animals while OAUZOO has nineteen (19) species of animals with a total of sixty-five (65) animals. This abundance of species is due to the fact that the management of UIZOO is more effective than OAUZOO. Also UIZOO has more sponsors than OAUZOO and this generate more funds, which helps in acquiring and feeding the animals.

#### **Conclusion**

The assessment of wildlife resources in University of Ibadan and ObafemiAwolowo University zoological garden shows that the two gardens have high eco-tourism prospects. Though most visitors wished for some species of animals like elephant, gorilla, hippopotamus, zebra to be in the zoological gardens as these animals are absent at the moment. It can be said that the level of ecotourism at the two zoological garden is at the developing stage as there is still a lot to be done. The facilities and structures in the duo gardens must be well constructed and of high standard which will increase the influx of tourist. The walkways, animal displays cages, restaurant should be improved. Lastly the two gardens need to be stocked with more exotic and indigenous wild animals since visitors are always enthused to view the animals.

#### **Recommendations**

Improvement in the standard and quality of infrastructural facilities so as to attract visitors and give them satisfaction. Animal cages need to be refurbished to improve the health of the animals in captivity as well as make it appealing to the tourists, picnic sites should be beautified by planting ornamental plants. Obafemi Awolowo University zoological garden needs to publicize the garden using mass media, the road network should be improved by clearing grasses and leaf debris to prevent snakes and other harmful things from injuring the tourists. Also Lavatory and dust bins should be put at specific places in the garden for visitor use. More so, construction of office blocks for staff and employment of more staff for better service and management. Zoological gardens should not only be for game viewing, other recreational activities like swimming, indoor games such as table tennis, snooker, scrabbles, ludo and chess can also be introduced. The use of visitors feedback comment card on the zoological garden services should be encouraged, first aid boxes should be made available at both zoological garden. There is need for acquisition of animals both exotic and indigenous that are not present as this will increase the influx of tourists into the zoological garden.

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