RELATIONSHIP AND PATTERN OF ADULTS AND MINORS VISITOR AT THE FEDERAL UNIVERSITY OF AGRICULTURE ZOO PARK, ABEOKUTA, OGUN STATE

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ABSTRACT

Population influx and the relationship between adults and minorsvisitantsto the Federal University of Agriculture Zoological Park were investigated within six months. This was necessary in order to determine their population difference and relationship. Total population of two thousands, four hundred and twenty-nine (2,429) visitors majorly made up of one thousand, eight hundred and twenty-nine (1,829) minor visitors and six hundred (600) adults visitors were recorded in the Zoo Park within period of six months.Monthly visitation pattern from December, 2012 – May, 2013 showed that the highest peak occurred in the Month of May, 2013 followed by March, 2013. Total mean population of adults and minors visitors within the six months was 100±21 adults and 304±115 minors respectively. A chi-square test of independence was performed to examine the relationship between adults and minors visitors. The relationship between these variables was significant, X^2 (5, N = 2429) = 232, p <0.05and revealed that minors are found of visiting the zoo more than the adults within the period of study. It was concluded that notable public holiday and mid-term might be factor responsible for the minors' attendants. Improved exhibitions and educational programs that encourage adult visitants and as well improve minors visit are recommended.

Key Words: Zoo Park, Visitants, Pattern, Relationship

INTRODUCTION

Zoo can be described as a permanent or temporary establishment where animals are kept in captivity for different purposes and it could be owned by the federal government, the state or by private organizations. Smith-Jackson and Hall (2002) detailed that every year wilderness areas and recreation centers are visited by millions of visitants and the World Association of Zoo and Aquarium-WAZA (2011, as sited in Lancaster, 2013) stated that zoos around the world host around 700 million visitants every year and its equivalent 10% of the global population. In case of zoos motivations for visitors visiting a zoo could be different but Turley study in 1999 revealed that main drive is pleasure. He further statedthat out of the

three main objectives; recreation, education and conservation of establishing zoos, conservation is the least influence the desire of the public to visit. Zoo providing form of informal learning has benefits it offers and in this light, Connell (2005) emphasized importance of zoo considering public interest in eco-tourism and wildlife experiences which are on increasing side and its ability to influence and encourage change in society. Provision of informal learning settings where outdoor firsthand educational experience at moderately more convenient to the public is made possible by zoos (Kiyui, 2005). Falk and Dierking (2002) informed that average formal education constitutes around 3% of average citizens' life span and informal learning experiences are very important. Falk, *et al*. (2009) reported that in order to constantly update and improve public understanding and knowledge of their present environmental challenges access to free-choice learning experiences

becomes essential. The study aims at determining trends and relationship of adults and minors visitant to the zoo. The specific objective of the study was to determine visitors' population and their proportion on monthly basis in the zoo. It was hypothesized that there were no difference between adults and minors groups visit to the zoo groups.It is expected that the information obtained from this study will contribute to management of the zoo and visitors programmes by the zoo.

Many surveys on the public perception of zoo revealed that zoos are visited mostly with the main reason to have a day out filled fun (Briseno-Garzon, Anderson and Anderson, 2007).Considering careless usage of our environment and effect on wildlife, Göktepe (1998a) stated that the prospect of human-beings will depend on effective environmental protection and extensive education.

MATERIALS AND METHODOLOGY

Study Area

The study area was conducted at the Federal University of Agriculture Abeokuta Zoo Park which was commissioned and opened for public view in the year 2010. The zoo was established by the University on 62 hectares of land and located along Alabata road to the University main campus. The zoo vegetation is a derived savanna. The zoo is the first in Ogun State and has been attracting visitors from across the state.

Methodology

In this study, secondary data already collected by the Federal University of Agriculture Abeokuta Zoo Park from December, 2012 to May, 2013. Daily records of number of visitors to the zoo recorded for six months basically collected data on the two groups of adults and minors population during the period. Adult group was defined as age above 18 years and below 18 years of age was classed minor. Collected data were collated and subjected to descriptive statistic and Chi-square analysis.

RESULTS

Visitors Population and Trend

Visitation pattern of adult and minors showed that a peak in visitation occurred in May, 2013. Monthly visitation pattern from December, 2012 – May, 2013 showed the highest peak occurred in the month of May, 2013 followed by March, 2013 and minors were most visitants. Total population of two thousands, four hundred and twenty-nine (2,429) visitors majorly made up of one thousand, eight hundred and twenty-nine (1,829) minors visitors and six hundred (600) adults visitors were recorded in the Zoo Park within period of six months(Table 1).

Total mean population of adults and minors visitors within the six months was 100±21 adults and 304±115 minors respectively. Total populations of minors recorded in five different months were more than adults' population except in the month of January, 2013 with adults and

minors population mean of 20±8 adults and 6±6 minors accordingly. The mean population of adult visitors in December, 2012 was 24±14 adults compared with mean population of minors which was 66 ±37 minors. Adult population mean from February to May, 2013 were 12±5 adults, 16±3 adults, 28±7 adults and 49±9 adults respectively while minors mean population from same month range were 29±17 minors, 108±61 minors, 47±16 minors and 201±149 minors accordingly (Table 2).

Over all, the minimum and maximum values for adult and minors visitors were 48 and 196 adults, 27 and 807 minors respectively. In January, 2012 the results showed minimum and maximum adult visitants to be 1 and 40 adults while minimum and maximum minor visitors were 0 and 27 minors accordingly. Maximum and minimum numbers of adults visitants recorded in the month of February, 2013 were 28 and 6 adults respectively while a minimum and maximum number of minors recorded were 2 and 73 minors respectively. The results in the month of March, 2013 revealed that minimum and maximum 7 and 26 adults visited the zoo while minor visitors

minimum and maximum were 3 and 272 minors respectively. Minimum and maximum adult visitors in the month of April was minimum of 10 adults and maximum of 48 adults but minors visitants were 7 and 75 minors respectively. In the month of May, 2013, minimum and maximum number of adult visitants to the zoo were 32 and 75 adults while minors visitors minimum and maximum number were 23 and 646 minors respectively. The minimum and maximum adult visitors in the month of December, 2012 were 6 and 66 adults, and minor visitors were minimum and maximum of 3 and 159 minors respectively (Table 2).

Total visitors population in the month of December, 2012 was 362 visitors made up of 97 adult and 265 minors. Highest visitors' number was recorded in the second week with 159 minor visitors and 6 adults' visitors (Table 3). In January, 2013 total visitors population was 108 visitors made up of 81 adults and 25 minors. In the first week of the month highest visitors' number was recorded 40 adult visitors and 27 minors (Table 4). Total visitors

population in February, 2013 was 164 visitors made up of 116 minors and 48 adults. Highest visitors' number was recorded in the second week with 6 adults and 39 minors(Table 5). Total visitors population in March, 2013 was 497 visitors made up of 64 adults and 433 minors. Highest visitors' number was recorded in the fourth week with 272 minor visitors and 26 adults (Table 6). Visitors' pattern in April showed 305 total numbers of visitors with 191 minors out of the population and 114 adults. Highest visitors' population was encountered in the first week with 75 minors and 48 adults (Table 7). Total visitors population in May, 2013 was 1003 visitors made up of 807minors and 196 adults. Highest visitors' number was recorded in the fourth week with 75 adults and 646minors (Table 8).

Visitors Relationship

A chi-square test of independence was performed to examine the relation between adults and minors visitors. The relation

between these visitors group was strong significant, X^2 (5, N = 2429) = 232, p <0.05**.** Existence of relationship between adults and minors visitants to the zoo showed that minors are found of visiting the zoo more than the adults within the period of study. Chi-square test results showed significant difference in the relationship between the two group of visitors in December, 2012 having X^2 (3, N = 362) = 203.83, p <0.05.There was significant difference in the variables for the month of January, 2013 with X^2 (3, N = 108) = 22.03, p <0.05. In February, 2013 significant difference was also observed in the variables X^2 (3, N = 164) = 87.79, p <0.05. Results of March, 2013wassignificantbetween the variables X^2 (3, N = 497) = 100.76, p <0.05 and there was no significant relationship between variables in April, 2013 X^2 (3, N = 295) = 7.43, p >0.05. There was significant difference between adults and minors visitors for the month of May, 2013 with X^2 (3, N = 1003) = 203.27, p <0.05.

DISCUSSION

Visitors Population and Trend

The total number of visitors to the zoo park could have been as a result of newness of the zoo in the state. The high rate of minor visitors to the park could be as a result of occurrences of public holidays or midterm on the school calendars and in support of Rosenfeld (1982) study that minors constantly dominate pattern of visit. Over all, low population adult visitors could be linked with nature of many adult lives which is tied around work and their perspective about zoological visitors' population recorded in the month of March, 2013 and May, 2013 could be as a result of midterm break and the public holiday in the months respectively. Though visitors' population in December, 2012 was low compared to the month of March and May but could still be attributed to the holidays, Christmas festive periods and long term break during the period.

Visitors Relationship The significant difference discovered between adult and minors visitors could be attributed to the facts that most of the minors visited the zoo park

through educational school trips and in accordance with Holzer and Scott (1997) that minors visitors to zoos were more likely to seek educational benefits and was in agreement with Rosenfeld (1982)that minors constantly controlled the pace and pattern of the visit and as well compared with Serrell (1980) study that family visit to the zoo linked to the presence of minors.

The greater proportion of the zoo audience comprised family groups, and since minors formed an integral part of these groups, their presence was possibly the most important reason for attending. Hood (1981) observed that adults were more likely to choose leisure activities that were valued highly by the people most important to them.

CONCLUSION AND RECOMMENDATION

It was concluded that the zoo attracted highest numbers of minor visitors than adult visitants majorly during the public holiday and mid-term period. Some of zoo programs that could impact minors is recommended and should be tailored around the most observed visiting

period. Educational program and public awareness on exhibits that will encourage

adult visitor group visit to the zoo is recommended.

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Table 1 Population of Adult and Minors Visitors at Federal University of Agriculture, Abeokuta Zoo Parkfrom December, 2012 – May, 2013

Months	Adult	Minors	Total	Chi –square value
Percent	27	73	100	Calculated= 232.14
December, 2012	97	265	362	Tabulated= 7.815
Percent	27	73	100	Df = 5
January, 2013	81	27	108	
Percent	75	25	100	
February, 2013	48	116	164	
Percent	30	70	100	
March, 2013	64	433	497	
Percent	13	87	100	
April, 2013	114	181	295	
Percent	39	61	100	
May, 2013	196	807	1003	
Percent	20	80	100	
Totals	600	1829	2429	

Field work, 2013.

Table 2 Mean Population of Visitors at Federal University of Agriculture, Abeokuta Zoo Park from December, 2012 – May, 2013

	N	Minimum	Maximum	Mean	Mean Error
Adult (December, 2012)	4	6	66	24	14
Minors (December, 2012)	4	3	159	66	37
Adult (January)	4	1	40	20	8
Minors (January)	4	0	27	6	6
Adult (February)	4	6	28	12	5
Minors (February	4	2	73	29	17
Adult (March)	4	7	26	16	3
Minors (March)	4	3	272	108	61
Adult (April)	4	10	48	28	7
Minors (April)	4	7	75	47	16
Adult (May)	4	32	75	49	9
Minors (May)	4	23	646	201	149
Total (months)/adult	6	48	196	100	21
Total (months)/minors	6	27	807	304	115

Table 3 Age Group Relation and Population for the Month of December, 2012

December	Adults	Minors	Total	Chi-square value
Week 1	8 (72.7)	3 (27.3)	11 (100.0)	Calculated= 203.86
				Tabulated = 7.815
Week 2	6 (3.6)	159 (96.4)	165 (100)	Df = 3
Week 3	66 (86.8)	10 (13.2)	76 (100)	
Week 4	17 (15.5)	93 (84.5)	110 (100)	
Totals	97 (26.8)	265 (73.2)	362 (100)	

Field works, 2012 Values in parentheses are percentages

Table 4 Age Group Relationship and Population for the Month of January, 2013

January	Adults	Minors	Total	Chi-square values
Week 1	40 (59.7)	27 (40.3)	67 (100)	Calculated= 22.03
				Tabulated = 7.815
Week 2	12 (100)	0 (0)	12 (100)	Df = 3
Week 3	28 (100)	0 (0)	28 (100)	
Week 4	1 (100)	0 (0)	1 (100)	
Totals	81 (75)	27 (25)	108 (100)	

Field works, 2013 Values in parentheses are percentages

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Table 5 Age Group Relationship and Population for the Month of February, 2013

February	Adults	Minors	Total	Chi-square values
Week 1	6 (75)	2 (25)	8 (100)	Calculated =87.79
				Tabulated =7.815
Week 2	28 (93.3)	2 (6.7)	30 (100)	Df = 3
Week 3	8 (9.9)	73 (90.1)	81 (100)	
Week 4	6 (13.3)	39 (86.7)	45 (100)	
Totals	48 (29.3)	116 (70.7)	164 (100)	

Field works, 2013 Values in parentheses are percentages

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Table 6 Age Group Relationship and Population for the Month of March, 2013

March	Adults	Minors	Total	Chi-square values
Week 1	14 (9.6)	132 (90.4)	143 (100)	Calculated =100.76
				Tabulated =7.815
Week 2	17 (85)	3 (15)	20 (100)	Df = 3
Week 3	7 (21.2)	28 (78.8)	33 (100)	
Week 4	26 (8.7)	272 (91.3)	298 (100)	
Totals	64 (12.9)	433 (87.1)	497 (100)	

Field works, 2013 Values in parentheses are percentages

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Table 7 Age Group Relationship and Population for the Month of April, 2013

April	Adults	Minors	Total	Chi-square values
Week 1	48 (39)	75 (61)	123 (100)	Calculated =7.43
				Tabulated =7.815
Week 2	30 (28.8)	74 (71.2)	104 (100)	Df = 3
Week 3	26 (42.6)	35 (57.4)	61 (100)	
Week 4	10 (58.8)	7 (41.2)	17 (100)	
Totals	114 (37.4)	191 (62.6)	305 (100)	

Field works, 2013 Values in parentheses are percentages

Yisau, *et al.*

Table 8 Age Group Relationship and Population for the Month of May 2013

May	Adults	Minors	Total	Chi-square values
Week 1	32 (23.2)	106 (76.8)	138 (100)	Calculated = 203.27
				Tabulated =7.815
Week 2	49 (60.5)	32 (39.5)	81 (100)	Df = 3
Week 3	40 (63.5)	23 (36.5)	63 (100)	
Week 4	75 (10.4)	646 (89.6)	721 (100)	
Totals	196 (19.5)	807 (80.5)	1003 (100)	

Field works, 2013 Values in parentheses are percentages