Wildlife Conservation Awareness Level Among Secondary School Students in Imo State, Nigeria

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K E Y W O R D S

Wildlife Conservation,
Awareness,
Curriculum,
Outreach,
Young children,
Secondary school.

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A B S T R A C T

Wildlife has suffered a lot of threats in the hands of some humans because of a lack of conservation awareness. An investigation about the level of this awareness was carried out among senior secondary school students in three different secondary schools located at Owerri West Local Government Area of Imo State, Nigeria. These schools were Ihiagwa secondary school (ISS), El-Betty Model secondary school (EMSS), and Nekede secondary school (NSS). Random sampling was used to select thirty (30) students from each school and a total of (90) questionnaires were administered. Data were collected on personal characteristics of respondents (age, sex, and class) and conservation awareness. Descriptive statistics was used for analyzing the data obtained. The results obtained indicated that the highest respondents (73.3%) fall within the age bracket 13-16 years old. (8.9%) falls within the age bracket 9-12 years old, while none of the respondents (0.0%) fall into the age bracket 6-8. (57.8%) were females while (42.2%) were males. (37.8%) were from senior secondary one (SSI) while (31.1%) were from both senior secondary two (SS2) and senior secondary three (SS3) students respectively. The result of conservation awareness showed that (>70%) of the respondents were not aware of wildlife conservation (P<0.05) while (<30%) were aware (P>0.05). The conclusion of this study shows that majority of secondary school students were not aware of biodiversity conservation. This study recommends that conservation awareness education; mostly practice should be incorporated into the secondary school curriculum, to start on time to teach young children their responsibilities regarding wildlife conservation. Also to create conservation awareness in all levels of education, through outreach, posters, news broadcast, interviews, and public lectures.

INTRODUCTION

Conservation is an effort to maintain and use natural resources wisely (IUCN, 2010). It is an effort to ensure that those resources will be available for future generations (Ijeomah *et al*, 2012). Hence, wildlife conservation is meant to exploit wild populations reasonably so that they will be available for future generations (FAO, 2008). According to (Aina *et al*, 1992), the world is facing a biodiversity crisis, hence schools, teachers, and parents are being urged to prepare students to face the real-life issues they will routinely encounter in maintaining wildlife sustainably, manage the biosphere and integrate biodiversity conservation with other societal goals Ayodele, and Lameed (1990). The need for conservation awareness or education among juveniles is necessary to teach them on time about conservation. Conservation awareness is a process of disseminating information and knowledge about the sustainable use of wildlife resources and the ability to evaluate such information or knowledge for the benefit of mankind, wildlife, and the environment. (Chinedu, 2008). It aims to provide learners with the opportunity to gain sensitivity to wildlife and their environment (Nchor and Ogogo, 2012). According to (Jaya, 2005), conservation means to impart knowledge and experience to people. Conservation awareness assists communities to solve the problems surrounding the sustainable use of wildlife (Ibimilua, 2014). This will help them to acquire a set of values and positive attitudes towards conservation and to obtain the skills required to identify and solve wildlife-related problems (Nest, 2015).

Consequently, the motivation and ability to participate in the conservation of biodiversity lies on the level of individual awareness. Conservation awareness should be considered to include, not just formal education and training, but also public awareness-raising (e.g. posters and media campaigns), school environmental clubs, and transfer of indigenous knowledge from elderly people to young ones. (Jacobson *et al*., 2006). The ultimate goal of conservation awareness, whether it is formal or non-formal is to sensitize and create a positive attitude among people to use the knowledge they have acquired through various means of information dissemination to

protect their environment (Agboola, 2014). Therefore, assessing young people's perception and level of awareness toward conservation, in general, can provide important insight into future wildlife conservation and management.

MATERIALS AND METHODS

Study area

The research was carried out in three Secondary Schools, namely Ihiagwa Secondary School (ISS), El-Betty Model Secondary School (EMSS), and Nekede Secondary School (NSS), all located at Owerri West Local Government Area of Imo State, Nigeria. This Local Government Area is located at the Rain Forest zone, about 120km north of the Atlantic coast. It has an area of about 295 km^2 and a population of about 99,265 at the 2006 census (P.D.A, 2014)

Geographically, Owerri West is located between latitude 5°43'26" N and 6°98'41" N and longitude 6°25'56" E and 6°58'48" E with an altitude of 720m above sea level. The temperature of Owerri West ranges from 23-37°C with a relative humidity of 90-100% in the rainy season and 70-80% in the dry season. The area is also characterized by high rainfall with an average of 3,000 mm per annum being recorded, while the dry season, lasts for up to four (4) months (December to March). The total population of the three schools was 941 of which ISS was 310, EMSS, and NSS have a population of 314 and 317 respectively.

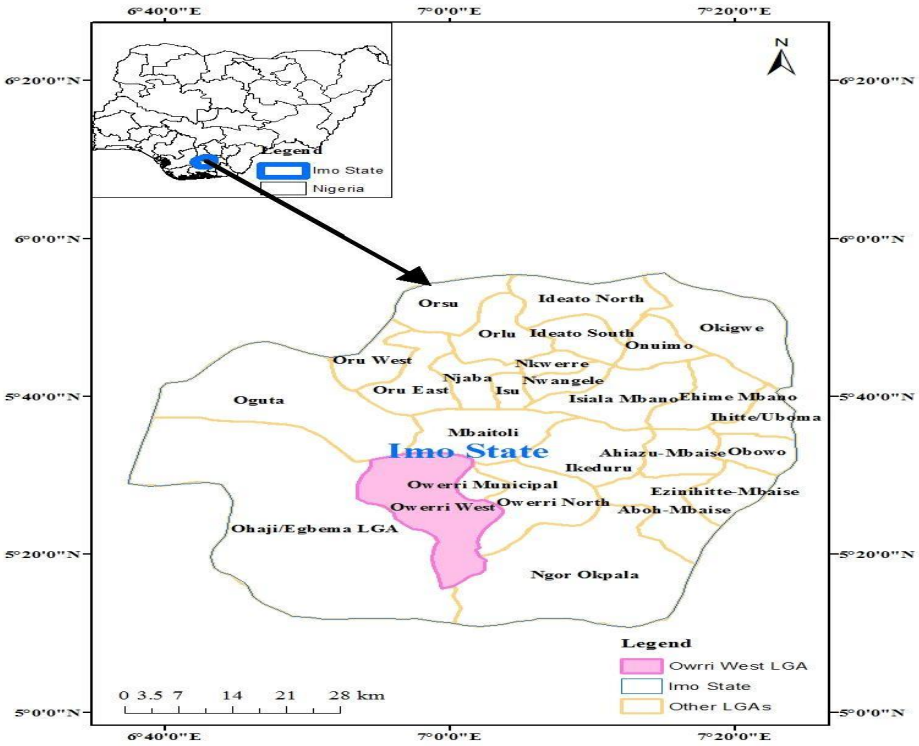


Figure 1: Map of Nigeria showing Owerri West Local Government Area
Source: Adeyemi and Ohwo (2015).

Method of data collection

Ninety (90) questionnaires were distributed in the three Secondary Schools, thirty in each school because they have an almost equal number of students. The total population was 941 of which 10% from each school were sampled. Initially, a reconnaissance survey was conducted in these study areas to guide the structure of the questionnaires as described by Verkevisser *et al*. (1991). Random sampling was used to select thirty students from each School, making it a total of ninety respondents. These three schools were visited at different weeks, on Mondays and Wednesdays within two months. Efforts were made to restrict the respondents from conniving in answering the questions. This was achieved by instructing the respondents to answer it like an examination question, strictly filling it independently, and return it at once. Teachers assistance were implored in making their students answer those questionnaires independently, which they did gladly. At the end, all the questionnaires (100%) were collected, without any loss (0%). Data was collected on some personal characteristics of the respondents (age, sex, and class). Many of the conservation awareness questions were in form of a Likert scale which varies from {Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD)}.

Data analysis

Data which was collected from this study was analyzed with descriptive statistics. SPSS (statistical package for social science) and Microsoft Excel were used for the analysis of data. The results were represented in form of tables, charts, frequency and percentages.

Results and Discussion

Table 1 showed the results of the personal characteristics of the respondents on age, sex, and class. The highest percentages of respondents (73.33%) were in the age bracket 13-16 years old. This was followed by those in the age bracket 17-20 years old which was (14.44%). This could be because children go to school nowadays at a very early age, the age of adolescence, the prime of their youth. (8.89%) of respondents falls within the age bracket 9-12, while (3.33%) were >21 years old and none of the respondents were 6-8 years old. It might be because they were younger children and have not reached the age of secondary school. However, (58.78%) of respondents were females while (42.22%) were males. This could be attributed to the fact that females go to school in Owerri West more than males or the statistics that females are more than males in population. Senior secondary school students (SSS1) had the highest number of respondents of (37.78%), while senior secondary school two (SSS2) students and senior secondary school three (SSS3) students had an equal number of respondents (31.11%).

Table 1: Demographic characteristics of Respondents

Data	ISS	EMSS	NSS	Frequency	Percentage (%)
AGE					
6-8	0	0	0	0	0.00
9-12	7	0	2	9	8.89
13-16	20	22	23	65	73.33
17-20	3	6	4	13	14.44
21-Above	0	2	1	3	3.33
SEX					
Male	12	17	9	38	42.22
Female	18	13	21	52	57.78
CLASS					
SSS1	10	13	11	34	37.78
SSS2	12	7	9	28	31.11
SSS3	8	10	10	28	31.11

Source: Field Work (2019)
Note: (ISS) is Ihiagwa secondary school; (EMSS) is El-Betty Model secondary school and (NSS) is Nekede secondary school.

Table 2 showed the result of respondents' level of awareness and knowledge about wildlife conservation. More than half of the respondents (66.67%) responded that they were not been thought about wildlife conservation and that they do not take part in biodiversity conservation. Then (28.89%) responded that they have heard about the importance of wildlife conservation but believe it was meant for adults to practice. In other words, they know but were not practicing it. This may be as a result of lack of knowledge on wildlife conservation policy or penalty attached to wildlife destruction. This contributes to the reason why they can catch birds and kill indiscriminately without fear. On the other hand, a very small percentage of respondents (3.33%) were not aware of or heard about wildlife conservation before. This group belongs to those that can kill wildlife even in public places. Their responses declared that it is likely for people to be committing an offense such as killing or maltreating wildlife without knowing that it is wrong. Experimental birds and urban wildlife have been caught severally and killed without any reason. This is why it is important to use different means of awareness creation tools and channels to instruct the public on the importance of wildlife conservation. The lowest percentage of the respondents (1.11%), unfortunately, thought that it is their right to kill wildlife. Despite having the knowledge about conservation but at the same time, it is their heritage. These groups of people may not stop poaching even at gunpoint.

Table 2: Awareness/knowledge and practicing of wildlife conservation

Response	ISS	EMSS	NSS	TOTAL	PER (%)
Unaware of wildlife conservation	14	22	24	60	66.67
Aware but not practicing	14	06	06	26	28.89
Not aware but practice	01	02	00	03	03.33
Not aware, not practice	01	00	00	01	01.11

Note: (ISS) is Ihiagwa secondary school; **(EMSS)** is El-Betty Model secondary school and **(NSS)** is Nekede secondary school.

Table 3 presented the results obtained from the above question about the reason for the decrease of the wild animal population, which was satisfactory. The highest number of respondents (82.22%) revealed that wild animal populations are decreasing because of daily hunting. This is caused by unemployment even among graduates. Even the employed ones are being sacked every month. So the struggle for survival was laid on the indiscriminate killing of young and adult animals for food. A smaller percentage of the respondents (7.78%) said that wildlife is decreasing because of habitat destruction. They insisted that modern technologies and urban construction have contributed to many wildlife habitat. This is true because individuals, groups, and organizations keep on buying land and clearing forests for one project or another. New companies are being built where the forest was before. This practice of development can destroy wildlife habitats and also brings about a decrease in the wildlife population. Coincidentally, (7.78%) of the

Respondents said that the animals are not reproducing faster as they should. This statement might be a result of some factors that disturbs wildlife. This is in line with the report of (Ijeomah, *et al*, 2005) who in their study revealed that crocodile finds it difficult to reproduce where there is noise pollution. The smallest number of respondents (2.22%) said that wild animals are decreasing because of climate change. They reported that the change in weather patterns like hot climate, seasonal differences may made the animals uncomfortable in their habitat. This type of disturbance, according to (Koenig *et al*, 2002) can bring about diurnal migration. The animals can change position at any time, either within the habitat or outside of it.

Table 3: Reason for the decrease in wildlife population

Response	ISS	EMSS	NSS	TOTAL	PER (%)
Daily hunting	22	27	25	74	82.22
Habitat destruction	04	00	03	07	07.78
Low reproduction	01	00	01	02	02.22
Climate change	03	03	01	07	07.78

Note: (ISS) is Ihiagwa secondary school; **(EMSS)** is El-Betty Model secondary school and **(NSS)** is Nekede secondary school.

Table 4 showed the result of the solutions for poaching which revealed that more than half of the respondents (63.33%) stated that a ban should be placed on the illegal felling of trees and killing of wild animals. They believed that this will help to conserve plants and wild animals. On the other hand, (24.44%) of the respondents mentioned that money should be collected from the offenders for illegal felling of trees. This may be a good strategy to reduce the illegal destruction of biodiversity. Ijeoma *et al*, 2005 revealed that said that National wildlife law in Nigeria is outdated. This means that there is no serious penalty for killing wildlife and that is one of the reasons why people destroy biodiversity.

Some of the respondents (7.78%) stated that the solution to wildlife conservation is to re-plant the number of trees that were felled and practice domestication in the case of wildlife, while the smallest number of them (4.44%) answered that more forest should be established to achieve sustainable biodiversity conservation.

Table 4: What are the solutions for poaching?

Note: (ISS) is Ihiagwa secondary school; **(EMSS)** is El-Betty Model secondary school and **(NSS)** is Nekede secondary school.

Response	ISS	EMSS	NSS	TOTAL	PER (%)
Ban on poaching	14	21	22	57	63.33
Payment of fine	10	04	08	22	24.44
Re-afforestation	03	04	00	07	07.78
Afforestation	03	01	00	04	04.44

Source: Field Work (2019)
Note: (ISS) is Ihiagwa secondary school; **(EMSS)** is El-Betty Model secondary school and **(NSS)** is Nekede secondary school.

Table 5 is the results of some of the questions asked to the respondents that were in form of a Likert scale which varies from {Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD)}. The highest number (63.33%) of the respondents strongly agreed that over pollution of the environment can bring about the extinction of wild animals, (28.89%) agreed, (7.78%) disagreed while (11.11%) strongly disagree. This agrees with the previous work of Reznick and Ghalamber, 2001, that pollution like noise, water, and air can affect wildlife. Surprisingly, (51.11%) of respondents strongly agreed that it is not wrong to hunt wild animals for food, (23.33%) also agreed (12.22%) disagreed while (13.33%) strongly disagreed. The smallest number (18.89%) of respondents strongly agreed that participation in afforestation programs is a mere waste of time and energy, (21.11%) agreed, (28.89%) disagreed while the highest number (31.11%) respondents strongly disagreed.

Table 5: Conservation awareness questions

Response	ISS	EMSS	NSS	Frequency	Percentage
Over Pollution of Environment Can Bring About Extinction of Wild Animals					
Strongly Agree	17	23	17	57	63.33
Agree	7	7	9	23	25.56
Disagree	3	0	1	4	4.44
Strong Disagree	3	0	3	6	6.67
It is not wrong to hunt animals for food					
Strongly Agree	18	17	11	46	51.11
Agree	8	4	9	21	23.33
Disagree	3	4	4	11	12.22
Strong Disagree	1	5	6	12	13.33
Participation in Afforestation programs is a mere waste of time and energy					
Strongly Agree	3	3	11	17	18.89
Agree	4	6	9	19	21.11
Disagree	13	9	4	26	28.89
Strong Disagree	10	12	6	28	31.11

Source: Field Work (2019)
Note: (ISS) is Ihiagwa secondary school; **(EMSS)** is El-Betty Model secondary school and **(NSS)** is Nekede secondary school.

CONCLUSION

This study has shown that secondary school students are not fully aware of wildlife conservation and its practice. It calls for more effort to inculcate into future generations the need to preserve our biodiversity. It is also imperative that Nigeria take more decisive action and rise to the challenge of creating more awareness in conserving its wild fauna resources if there will be a future where her children will live in harmony with nature. Despite the numerous benefits man derives from wildlife resources, reckless exploitation of the species remained unceasing and unabated. Human activities such as bush burning, damming of rivers, draining of swamps, environmental pollution, hunting, and poaching have continued to threaten wildlife existence in the Nigerian environment. Consequently, many animals are facing extinction and are classified either as threatened or endangered species according to the world conservation society. Conservation goals and objectives in the country's national policy ought to be given more attention as concerned

NGOs continued to implore and support the government in integrating them. As man is the chief culprit in interference with the natural environment, the responsibility is equally on him for sustainable management and use of the resources nature has made available.

RECOMMENDATION

This study recommends that conservation awareness education should be incorporated into the secondary school curriculum, to start on time to teach young children their responsibilities regarding wildlife conservation. Also to create conservation awareness in all levels of education, through outreach, posters, news broadcast, interviews, and public lectures. This will enhance the importance of wildlife and reduce illegal activities by future generations. Interestingly, proper wildlife conservation will be achieved in Nigeria if the government focuses on achieving food security through the mass production of crops through commercial agriculture.

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