



PERCEPTION OF UNIVERSITY OF BENIN UNDERGRADUATE STUDENTS TOWARDS WILDLIFE CONSERVATION

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Abstract

This study was carried out to evaluate the perception of University of Benin undergraduate students towards wildlife conservation in Edo State. Using 50% intensity, 8 faculties were randomly selected from 15 faculties in the University. A total of 257 structured questionnaires were administered to all the selected faculties. Data were collected from both primary and secondary sources. The primary data were through questionnaire as well as personal interview. The data were analysed using descriptive statistics with analysis of variance (ANOVA). Duncan new multiple range test was further used to separate means that were significantly different. From the results, 51.6% of the respondents were males within the age range of 19-24 years. All the respondents (100%) affirmed that they were aware of the conservation of wild plants and animals. Most respondents (72.8%) value the use of wildlife conservation for their ecotourism potentials. The results also showed that majority (50.8%) of the students in all the faculties supported the conservation of wildlife essentially for tourist attraction. While 93.2% of the students saw the conservation of wildlife as a future hope and very important for the future generation. 98.8% supported the establishment of a zoological garden in the University and 85.2% had vast knowledge about wild animals that are threatened. The results showed that there were no significant differences ($P>0.05$) among the respondents' knowledge about conservation of species existence. It was claimed by the respondents that internet with a mean value (12.88) was the major source of information about wildlife conservation. It could be concluded that there was apparently a positive perception of undergraduate students in the University of Benin towards wildlife conservation

Keywords: *Ecotourism potentials, wild plants and animals, advocacy, wildlife conservation,*

Introduction

Conservation, according to international union for conservation of Natural Resources, is the management of human use of the biosphere, so that it may yield the greatest sustainable benefits while maintaining its potentials to meet the needs and aspirations of the future generation (Infield, 1999). The value attached to wildlife and its products prompted its utilization by the ancient man and even the modern man whose survival is hinged on wildlife and its products. Just pause and imagine a world without primates to test vaccines prepared against deadly diseases like Ebola, Covid-19 and others. The pharmaceutical industry depends largely on fauna and flora resources for human and animal drugs (Godwin, 2011, Akosim and Irokanulo, 2008). Wild animals provide an important source of meat in both rural and urban household diets (Ajayi, 1978). Wildlife consumption is an integral part of livelihood of both socio-cultural and supplementary income for rural dwellers (De Merode *et al.*, 2003). The increasing trade in wildlife species as well as forest encroachment due to anthropogenic activities of man has resulted in the decline of wildlife populations in both west and Central African Countries (Akumsi, 2003). The success of wildlife conservation depends on the attitude and perception of the people towards conservation (Osmond, 1994; Katrina, 2000). It is necessary to seek and obtain the active participation of potential stakeholders not only in technical efficiency of

conservation technology, but also the extent of satisfying cultural, social and political considerations in the environment which can help change the attitude and perception of indigenous people towards wildlife existence and conservation (Newmark *et al.*, 1994). University undergraduates today abandon courses in wildlife and other related areas, simply because of ignorance of what the course is all about, to pursue what they call “more lucrative professions” (Gambu, 2012). The conservation of wildlife is an important issue and broad in all ramifications for the quality of human life and it is relative to the impact of agriculture, public health, ecological balance and climate change (Peterson *et al.*, 2007). The accelerating decline in biodiversity because of human perceptions and attitude is one of the most urgent environmental issues (Meffe and Kouki, 1994). To promote wildlife education, students’ perceptions, interest and attitude need to be taken into cognizance in the construction of curriculum (Gayford, 2000). Perception of the wildlife conservation refers to an individual’s perception or view of the wildlife and its surroundings. Perception therefore differs from person to person depending on either internal or external factors. The formation of perception, attitudes and relationships with the environment is a key goal in childhood and facilitates a variety of positive environmental experiences from one child to another (NAAEE, 2010). Today, new strategies have evolved known as “community conservation” (Infield and Namara, 2001). This strategy seeks to accommodate local peoples’ needs and aspirations by empowering them, promoting their active participation in local resource management and improving their economic welfare (Songorwa, 1999; Infield and Namara, 2001; Mehta and Heinen, 2001). Very closely related to perception, is attitude that has been defined as the favourable or unfavourable dispositions towards an action (Dickman *et al.*, 2013). Perception, we all know, refers to how we interpret our surroundings and this provides meaning to our environment (Bowditch *et al.*, 2007). Assessing public attitudes and perceptions helps acquire knowledge about issues related to human-wildlife coexistence and should be used to establish long-term conservation strategies for wildlife (Conforti and Azevedo, 2003). The perception of stakeholder groups are especially important to consider, as they can significantly affect policy, thus making the foundations of wildlife management as social and political as they are scientific (Smith *et al.*, 2014). In areas where human induced mortality is a threat to wildlife populations, identifying which socio-economic factors influence attitudes and perceptions is critical in targeting appropriate resolutions to negative human-wildlife interactions, whether they involve community-based education initiative, rancher outreach, or improvement of policies. Perception of students towards conservation is very important given that they will be the ones to shoulder the responsibility of managing our resources in the future (Muderrisoolu and Altanlar, 2011). Past studies have shown that younger students from the rural areas, especially girls have more sophisticated environmental awareness than older boys from the urban areas (Thapa, 1999). Environmental literacy is often linked with students’ sensitivity, awareness and understanding of changing wildlife conservation issues. Hence, increased and responsible environmental actions are the result of environmental education given to students (Bradley *et al.*, 1997). Students growing up in developed versus less developed countries, their environmental settings had significantly different levels of environmental awareness despite their common shared exposure to institutionalized environmental education (He *et al.*, 2011; Hualst-Pullen *et al.*, 2012). The lack of awareness and wrong perceptions of the people towards wildlife could result in the lack of concern for conservation (Oliver and Heaney, 1996). Attitudes towards wildlife vary because factors affecting attitudes, such as interactions with wildlife, are spatially heterogeneous (Sitali, *et al.*, 2003). A number of studies also have been conducted on attitudes of local people towards carnivores in Asia (Bagchi and Mishra, 2006). Usually, women, older

people, people with a lower education level, people working in a natural-resource-dependent profession or people living in a rural area within a carnivore distribution range, tend to have more negative attitudes (Kellert *et al.*, 1996). Negative attitudes toward wildlife, often encourage people to kill wild animals (Oli *et al.*, 1994), which takes a toll on conservation efforts. The students' perception stands in stark and disturbing contrast to prediction of an impending shortage of technical and professional workers in the forest and wildlife conservation sector. Daramola (2009) reported that conservation education has been undergoing a steady decline as evidenced by the 30% global reduction in engagement in wildlife conservation education and training programmes. Alao (2010) also observed that enrolment figures are still low, despite the fact that there are presently twenty Universities in Nigeria offering forestry and wildlife courses. It was stated that figures of students' enrolment for technical forestry and wildlife conservation education showed an average of 74% per year between 1940 and 1999, while that of M.Sc. and Ph.D. stood at 11% and 17% between 1994/95 and 2003/2004 academic sessions respectively. African countries are experiencing a decline in wildlife populations, due to indiscriminate exploitation of wildlife for food and income. This has greatly influenced the negative attitude and human perception on the conservation of natural resources. Currently, there is minimal understanding of the attitude, perception and engagement of youths for the conservation of wildlife issues across most rural areas in Africa. The ability to balance human needs and their desires with the need of the environment is one of the greatest challenges facing wildlife conservation. Therefore, there is the need to inculcate conservation education programmes among University students in order to enhance the level of conservation awareness about wildlife management and positive perception on its conservation. Hence, the main objective of this study was to investigate the perception of University of Benin students towards wildlife conservation.

Materials and Method

Study Area

This study was conducted at the Ugbowo Campus of the University of Benin in Edo State, Nigeria. University of Benin has a land area of 1,748 hectares and located between latitude 05.4° and 06.0°E (UNIBEN Master Plan, 1993). The altitude is 74.5m above sea level and the climate is that of the rainforest zone of the Southwest, Nigeria. Average annual rainfall is 1,500mm. The temperature usually varies from 27°C to 32°C with an average of 27° (UNIBEN Master Plan, 1993).

Sampling Techniques and Data Collection

A preliminary visit was made to Admissions Office and Students' Affair Divisions of the University from where information on total number of students' in each Faculty was obtained. A total of 50% intensity was used to randomly select eight (8) faculties from a total of fifteen faculties in the University. The respondents were full time undergraduate students in each of the selected faculties. Respondents were selected based on 0.5 and 1% sampling intensities in faculties where the population of students were 5,000 and above and below 5,000 respectively (Table 1). The respondents were randomly selected accordingly.

Table 1: Selected Faculties and Sampling Population

Faculty	Students' population	Sampling intensity (%)	Sampling Population
Life Sciences	3,438	1.0	34
Management Sciences	6,356	0.5	32
Pharmacy	2,964	1.0	30
Agriculture	3,950	1.0	40
Social Sciences	5,845	0.5	29
Dentistry	3,020	1.0	30
Education	6,236	0.5	31
Engineering	6,190	0.5	31
Total	37,999		257

A total of two hundred and fifty-seven (257) well-structured questionnaires were distributed in all the faculties selected for the study.

Data Collection

Data were collected through primary and secondary means. The primary data collection was through the administration of well-structured questionnaires to the respondents. The questionnaires were used to elicit relevant information within the scope of the study.. Personal interviews were also carried out. The secondary data were collected from the Admission's Office and Student's Affairs Division of University of Benin, literatures and internet services.

Data Analysis

Data generated were analysed using descriptive statistics of frequency and percentage summarized in tables, charts and inferential statistics with the use of analysis of variance at 5% level of significance. Significantly different means were separated using the Duncan New Multiple Range Test (DNMRT).

Results

Table 2 shows the demographic characteristics of the respondents. Majority of the respondents were males (51.6%) with the age range of 19-24 years (35.6%), followed by ≤ 18 years (26.4%), 25-30 years (22.8%) and ≥ 31 years (15.2%). also It was revealed that 52.8% of the respondents were Christians and 75.6% were single.

Table 2 Demographic Characteristics of the Respondents

Variables	Frequency	Percentage
Gender		
Male	129	51.6
Female	121	48.4
Total	250	100
Age		
≤18	66	26.4
19-24	89	35.6
25-30	57	22.8
≥31	38	15.2
Total	250	100
Religion		
Christian	132	52.8
Islam	75	30.0
Traditional	43	17.2
Total	250	100
Marital Status		
Single	189	75.6
Married	58	23.2
Divorced	3	1.2
Total	250	100

Source: Field Survey, 2021

Provide the table caption as introduction first before results presentation It was shown that all (100%) the respondents were aware of wildlife conservation and valued wildlife conservation because of its ecotourism potentials (72.8%). Also, it was revealed that 94.4% of the respondents were in support of wildlife conservation and agreed (46.4%) that wildlife and humans should co-exist. Majority (95.6%) of the respondents claimed that they have visited at least a conservation area before.

Table 3 Respondents’ perception towards wildlife conservation

Variables	Frequency	Percentage
Awareness of conservation of plants and animals		
Yes	250	100
No	-	-
Total	250	100
Value of use of wildlife conservation by respondents		
Economical	26	10.4
Ecological	42	16.8
Ecotourism Potentials	182	72.8
Total	250	100
Support of Wildlife Conservation		
Yes	236	94.4
No	14	5.6
Total	250	100
Co-existence of Wildlife and Humans		
Agree	116	46.4
Strongly Agree	82	32.8
Disagree	34	13.6
Strongly Disagree	18	7.2
Total	250	100
Visitation of Conservation Area		

Yes	239	95.6
No	11	4.4
Total	250	100

Source: Field Survey, 2021

Provide the table caption as introduction first before results presentation There were significant differences (P<0.05) among the various reasons for supporting wildlife conservation by the respondents. Tourist attraction was the major determinant (insert value) why respondents support wildlife conservation.

Table 4: Respondents’ reason for supporting wildlife conservation

Faculty	Tourist Attraction	Aesthetic Value	Value for future generation
Life Sciences	16	12	6
Management Science	19	8	3
Pharmacy	15	6	9
Agriculture	21	8	11
Social Science	12	5	8
Dentistry	14	6	10
Education	17	5	9
Engineering	13	4	13
Total	127	54	69
Mean	15.9^a	6.8^b	8.6

Source: Field Survey, 2021

Provide the table caption as introduction first before results presentation. It was shown that 93.2% of the respondents see conservation of wildlife as hope for the future and claimed that wildlife conservation is very important for future generations (60.4%). It was also shown that 98.8% of the respondents were in support of zoological Garden establishment in the study area and were aware of the threatened wild animals (85.2%).

Table 5: Respondents’ consent to wildlife conservation

Variables	Frequency	Percentage
Conservation of Wildlife as hope of the future		
Yes	233	93.2
No	17	6.8
Total	250	100
Notion towards wildlife conservation		
Like	86	34.4
Not Profitable	13	5.2
Very Important for Future generation	151	60.4
Total	250	100
Supporting the establishment of zoological gardens in the University		
Yes	3	1.2
No	250	100
Total		
Knowledge of wild animals that are threatened		
Yes	213	85.2
No	37	14.8
Total	250	100

Source: Field Survey, 2021

Provide the table caption as introduction first before results presentation. It was revealed that there were no significant differences ($P>0.05$) among the various levels of knowledge of conservation species existence by the respondents.

Table 6: Respondents’ knowledge of conservation species existence

Faculty	Low	Average	High	Very High
Life Sciences	5	8	12	8
Management Sciences	10	11	6	3
Pharmacy	5	10	8	7
Agriculture	3	6	17	14
Social Science	2	9	8	6
Dentistry	7	10	8	5
Education	10	12	6	3
Engineering	8	11	8	3
Total	50	77	73	49
Mean	6.3	9.6	9.1	6.1

Source: Field Survey, 2019

Provide the table caption as introduction first before results presentation. Majority (55.2%) of the respondents claimed that wildlife conservation is very important and advocated for wildlife management study (94.4%). It was also shown that 58.4% of the respondents strongly agreed that wildlife management studies helped in the conservation of wildlife.

Table 7: Importance of wildlife conservation study

Variables	Frequency	Percentage
Level of importance of wildlife conservation		
Very Important	138	55.2
Un-Important	10	4.0
Somehow important	102	40.8
Total	250	100
Advocating for Wildlife Management Study		
Yes	236	94.4
No	14	5.6
Total	250	100
Wildlife Management Study help for the conservation of wildlife		
Agree	94	37.6
Strongly Agree	146	58.4
Disagree	6	2.4
Strongly Disagree	4	1.6
Total	250	100

Source: Field Survey, 2021

Table 8 showed source of information about wildlife conservation. There were significant differences ($P<0.05$) among the various sources of information about wildlife conservation. Internet was the major source (12.99) of information about wildlife conservation in the study area.

Table 8: Sources of Information about wildlife conservation

Faculty	News Print	Sticker	Handbills	Internet
Life Sciences	8	5	3	18
Management Sciences	6	7	4	13
Pharmacy	10	4	6	10
Agriculture	12	6	8	14
Social Science	4	3	5	13
Dentistry	10	6	3	11
Education	7	4	6	14
Engineering	9	7	4	10
Total	66	42	39	103
Mean	8.25^b	5.25^c	4.88^c	12.99^a

Source: Field Survey, 2021

Discussion

The results of this study have shown that majority of the students had positive perception towards the conservation and study of wildlife management. This can be attributed to the level of internet exposure which probably influenced their level of education and knowledge about wildlife and its conservation. This agrees with Mohammed (2010), who reported that educated people may have more knowledge and understanding on conservation related issues resulting from high level of interaction at learning in educational institutions and exposure through the media. Majority of the students expressed their views on the values of wildlife use, ecotourism potentials and ecological purposes were highly distributed among the students. This implies that the students are well equipped with the knowledge of conservation, despite the absence of conservation centres in the University. Majority of the students from all the faculties expressed their opinions in support of wildlife conservation. This could be attributed to their views about wildlife and their exposures to relevant information on wildlife education. This differs from Emelue *et al.* (2018), who reported that the vast majority of respondents interviewed in a study supported wildlife conservation, because of the perceived financial benefit derivable from wildlife based tourism. The overall majority of the students expressed support for the establishment of zoological garden in the University. This may be as a result of the increased level of education and awareness about resources conservation. The findings agree with Akama *et al.*, (1995), who reported that as the level of education increases, the level of negativity towards protected areas decreases. Generally, it was observed that the Faculty of Agriculture had a high level knowledge of species existence. This could be attributed to the various conservation courses offered by the students as part of the requirements for the award of degrees in the faculty.

Conclusion

The study concluded that younger, single, Christian undergraduate students between the ages of 19-24 participated in this study. They showed a high level of awareness of plant and animal conservation. The respondents perception towards wildlife conservation was quite high to the extent they were willing to support it because of its tourist attraction potentials, it values for future generation and its aesthetic values respectively. Therefore, there was apparently a positive perception of undergraduate students in the University of Benin towards wildlife conservation.

References

- Ajayi, S. S. (1978). Planning for Wildlife Management in Nigeria. Department of Forest Resources Management, University of Ibadan, Nigeria. 33 Pp. Mimeograph
- Akama, J, Lante and Burnet, D. (1999). Conflicting attitudes towards State Wildlife Conservation Programme in Society and Natural Resources., 8:13-144
- Akosim, I. C and Irokanulo, U. O. (2008). Applied Zoo Management for Students in Tertiary Institutions and conservations. First Edition Paraclete Publishers, Yola-Nigeria. Pp. 213
- Akumsi, A. (2003). Community participation in wildlife management. The mount Cameroon Experience un a Sylve, 54: 37-42.
- Alao, J. S. (2010). Repositioning Forestry education in Nigeria. *Nigerian Journal of Basic and Applied Science*. 23(2): 157-163
- Bagchi, S and Mishra, C. (2006). Living with Large Carnivores. Predation on Livestock by the snow leopard (*Uncia uncia*). *Journal of Zoology*, 268:217-224
- Bowditch, J.L., Buono, A.F. and Stewart, M.M. (2007). A primer on organizational behaviour. Willey, Hoboken, U.S.A.
- Bradley, J.C., Waliczek, T.M. and Zajicek, J.M (1997). Relationship between demographic variables and environmental attitude of high school students. *J. Nat. Resource Life Sci. Educ.* 26:102-104.
- Conforti, V.A. and Azevedo, F.C.C. (2003). Local Perceptions of Jaguar (*Panthera onca*) and Pumas (*Puma concolor*) in the Iguacu National Park Area, South Brazil. *Biological Conservation*, 111:215-221.
- Daramola, T.M. (2009). Forestry Education in Africa: State and Prospect. Outcome of discussion of the Northern African Regional Meeting, Federal University of Technology, Akure, Ondo State, Nigeria Pp 1683-1693.
- De Merode, E., Homework, E and Cowlshaw, G. (2003). Wildlife Resources and Livelihoods of poor households in the Democratic Republic of Congo. ODI wildlife Policy Brinding, No. 1 London, U.K. Pp.9
- Dickman, A., Marchini, S and Manfredo, M. (2013). The Human dimension in addressing conflict with large carnivores. In Key Topics in Conservation Biology (eds. Macdonald, D.W. and Willis, K.J.) Pp. 110-126. John, Wiley and Sons, Ltd, Chichester, UK.
- Emelue, G.U., Eveso, G.O., Aigbe P., and Okwa, S. (2018). Awareness and attitude of Secondary School Students towards Wildlife Conservation Proceedings of 2nd Wildlife Society of Nigeria Conference, Akure. Pp. 107-113.
- Gambu, K.S. (2012). Gender Analysis of Socio-Cultural perception about *Moringa oleifera* among farmers in Funtua LGA, Adamawa State. Unpublished B. Tech Project of the Department of Forestry and Wildlife, MAUTECH, Yola, Pp. 123
- Gayford, C. (2000). Biodiversity Education: a teacher's perspective *Environmental Education Research* 6(4): 347-361.
- Godwin, B.O. (2011). Perceptions of Secondary School Students towards Wildlife Conservation in Maiduguri, Borno State. Unpublished B.Sc. project of the Department of Forestry and Wildlife, UNIMAID. Pp. 233
- He, X.E., Hong, T., Liu, L. and Tiefenbacher, J. (2011). A comparative study of environmental knowledge, attitudes and behaviours among University Students in China, *International Research in Geographical and Environmental Education*, 20(2): 91-104.

- Hoalst-Pullen, N., Loyd, M.R. and Parkhurst, M.E. (2012). Environmental Attitudes and perceptions: A comparison of Peru and the US. *Journal of Global Initiatives*, 7(2): 167-181.
- Infield, M and Namara, A. (2001). Community attitude and behaviour toward conservation: An Assessment of a Community Conservation Programme around Taemuro National Park, Uganda. *Oryx* 39:48-60.
- Infield, M.A. (1999). Institutional Sustainability and conservation: A case study from Uganda. *Journal of International Development*, 11:305-315.
- Katrina, B (2000). People, parks, forests or fields: A realistic view of tropical forest conservation. Publisher by Elsevier Science Ltd. Available on 24th July, 2000.
- Kellert, S.R.; Black, M.; Rush, C.R. and Bath, A.J. (1996). Human Culture and Large Carnivore conservation in North America. *Conservation Biology*, 10:977-990.
- Meffe, Y and Kouki, J. (1994). The Phenomenon of biodiversity in conservation Biology. *Ann. Zool. Fenice* (Finish Zoological Publishing Board) 31:5-18.
- Mehta, J.N. and Heinen, J.T (2001). Does Community-based conservation shape favourable attitudes among locals? An Empirical study from Nepal. *Environmental Management*, 28:165-177
- Mohammed, G.S. (2010). Determinant of Attitude and perception on resources use and management of Marsabit National Reserve Kenya. *J. Hun. Ecol.* 30(1): 55-62.
- Muderrisolu, H and Altanler, A., (2011). Attitudes and Behaviour of Undergraduate students toward environmental issues. *International Journal of Environmental Science Technology*, 8(1):159-168.
- Newmark, W.D., Manyaza, D.N. and Gamasa Deo-gratias, M. (1994). The Conflict of Wildlife and Local people living adjacent to protected areas in Tanzania: *Human density as a predictor: Conserv. Biol.* 8:249-255.
- NAAEE (2010). North American Association for Environmental Education The Biodiversity collection. A review of Biodiversity resources for educators. Retrieved from <http://www.naaee.org/programs-and-initiatives/guidlinesforexcellence/materials-guidelines/biodiversity-collection-resourcesforeducators>.
- Oli., M.K., Taylor, I.R. and Rogers, M.E. (1994). Snow Leopard (*Panthera uncia*) predation of livestock: Assessment of Local perceptions in the Annapurna Conservation Area, Nepal. *Biological conservation*, 68:63-68.
- Oliver, W.L.R. and Heaney, L.R. (1996). Biodiversity and Conservation in the Philippines. *International zoo news*, 43:329-336.
- Osmond, P. (1994). Wildlife-human conflicts in Kenya, Integrating wildlife conservation with human needs in Masai Mara region, PhD, thesis, McGill University, Montreal, Pp. 128.
- Peterson, M.N., Peterson, M.J., Peterson, T.R. and Liu, J. (2007). A household, perspective for biodiversity conservation. *Journal of Wildlife Management*, 71:1243-1248.
- Songorwa, A.N. (1999). Community-Based Wildlife Management (CWM) in Tanzania: are the communities interested? *World*, 27(12): 2061-2079.
- Smith, J.B., Nielsen, C.K. and Hellgren, E.C. (2014). Illinois Resident attitudes towards recolonizing large carnivores. *The Journal of Wildlife Management*, 78:930-934.
- Sitati, N.W.; Walpole, M.J and Smith, R.J. (2003). Predicting spatial aspects of human-elephant conflict. *Journal of Applied Ecology*, 40(4): 777-677.

Thapa, B. (1999). Environmentalism: A study of Undergraduate students. Proceedings of the Northern eastern recreation research symposium. Bolton Landing, New York. The Pennsylvania State University, 41-50.

University of Benin Master Plan (1993)