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# Indigenous Wildlife Conservation Practices in Selected Communities in Bende and Obi-Ngwa Local Government Areas of Abia State, Nigeria

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## Abstract

Indigenous wildlife conservation practices in Bende and Obi Ngwa Local Government Areas of Abia state was examined using Uzuakoli, Item, Ozuitem, Umuokahia, Mgbokoumuanunu and Umuegbe communities as case studies. Data for the study were obtained through personal observation, in-depth interview and administration of questionnaires. A set of questionnaires was purposively administered to 170 respondents in the study area based on the population size of communities. Data obtained were analyzed using descriptive and inferential statistics. Uzuakoli community has the highest number of sacred species: Green snake (88.00%), Chameleon (88.00), Crocodile (20.00%) and Small fish (18.00%). Item has Bat (83.33%) and vulture (83.33%). Ozuitem has Monitor lizard (100.00%). Umuokahia has Python (96.67%). Mgbokoumuanunu has Hyena (95.00%) and Leopard (35.00%). Umuegbe has Black kite (90.00%). These species are conserved mainly as ancestors (50.00%), Protectors of little children (25.00%), ancestors/ protectors (25.00%) in Uzuakoli; ancestors (40.00%), mouthpiece of the gods (40.00%) and evil spirits (20.00%) in Item; ancestors (100.00%) in Ozuitem; ancestors (79.31%) in Umuokahia; ancestors (57.90%), protectors (5.26%), ancestors/counterparts (36.84%) in Mgbokoumuanunu; ancestors (88.90%), protectors (11.11%) in Umuegbe. Challenges of these conservation practices identified in Uzuakoli include Christianity (47.72%), Hunting and disobedience (15.91%), absence of traditional ruler and chief priest (15.91%); in Item: Christianity (52.00%), absence of chief priest (12.00%) ignorance (4.00%) ; in Ozuitem: Christianity (60.00%), insufficient awareness (15.00%), ignorance (15.00%), Hunting and disobedience (10.00%); in Umuokahia: Christianity (44.83%); in Mgobokoumuanunu: Christianity (68.42%), Hunting and disobedience (31.58%); in Umuegbe: Christianity (55.56%), Civilization (33.33%), Faded practice (11.11%). Umuokahia and Item have fewer challenges because the existing conservation practices in them are very strong (62.07%) and strong (80.00%). The practices in all the other communities are either very weak or weak in terms of level of effectiveness. The Chi-square tests of association between perceived effectiveness and respondents age, sex, religion and indigenship were not significant ($p>0.05$), while family size ($\chi^2 = 19.570^a$) and educational qualification ($\chi^2= 37.275^a$) were significant ($p<0.005$). The reducing level of effectiveness in many of these communities is an indication that with time the practices could be eroded in the study area. The practices, though seriously facing several challenges at present, have enhanced the protection of some wildlife species and should therefore be supported with policies to ensure that they are sustained.

**Keywords:** Indigenous Conservation Practice, Wildlife management, Cultural heritage.

## Introduction

Indigenous wildlife conservation practices involve the use of culture in ensuring protection and sustainable utilisation of wildlife species. Traditional knowledge systems are relevant in species conservations and management as evident in the close relationship between cultural diversity and biodiversity (Caldecott *et al.*, 2005; Hens, 2006). African communities have rich environmental cultures which can be understood by listening to their myths, stories, taboos, beliefs, proverbs, observing certain symbols and rituals (Lssozi, 2012). By these cultural practices some forests, water bodies or environments were designated sacred places as backed up by both communal laws and (in many cases) spiritual powers. These sacred places served as sanctuaries for many flora and fauna species of different ecological status. There are some species of plants and animals that are also designated as sacred; thus giving these species protection in the particular community or within a defined geographical area. These diverse cultural practices were effective in conservation of forests, water bodies, aquatic resources and wild fauna. There are several challenges against the conservation practices in many traditional societies such as none compliance which were always addressed using the traditional legal system and punitive measures.

Presently, the tremendous increase in human population and poverty have increased the utilization of wild

animals, pressure on wildlife products while urbanization, education and new religious awareness have weakened indigenous wildlife conservation in many areas and many sacred forests that serve as places of refuge or sanctuary for wild animals in many communities have been cleared (Ijeomah *et al.*, 2011). Presently, sacred species are being hunted and traditional chief priests, who are supposed to be the custodians and enforcement agents of traditional conservation laws, are beginning to lose faith in the laws and taboos that were used to protect the sacred species (Ijeomah *et al.*, 2007). Human beings have seriously encroached into many wildlife habitats and occupied the land formally inhabited by wild animals (Ijeomah and Aiyeloja, 2010). The continuous reduction in diversity and abundance of species at global level coupled with the insecurity of wild animals in many protected areas is worrisome.

Many indigenous wildlife conservation practices in eastern Nigeria such as the conservation of pythons (*Python sabae*) and giant rats (*Cricetomys gambianus*) in Dikenafai community of Imo State have stopped functioning (Ijeomah *et al*., 2007), and few remaining ones such as the conservation of *Cercopithecus sclateri* in Lagwa, Imo state, and Akpugoeze, Enugu state (Ijeomah *et al*. 2011), and conservation of African Manatee (*Trichechus senegalensis*) in Itu wetland of Akwa Ibom (Ijeomah *et al*., 2018) are facing challenges. The introduction of ecotourism using these wildlife resources as core attractions, and environmental education will go a long way in strengthening the perception of the inhabitants of the respective communities towards sustaining their indigenous conservation practices. The state of indigenous wildlife conservation practices in selected communities of Bende and Obi -Ngwa Local Government Areas are yet to be documented. This study was therefore carried out to identify and investigate the indigenous practices that are promoting wildlife conservation in these LGAs. The limitations affecting the efficiency of these practices as conservation tools in the study areas were also investigated.

## Methodology

### Study Area

This study was carried out at Uzuakoli, Item and Ozuitem of Bende Local Government Area and Umuokahia, Mgbokoumuanunu and Umuegbe in Obi-Ngwa Local Government Area of Abia state (Figure 1). These communities of the two LGAs were purposefully selected because they are communities with indigenous wildlife conservation practices. Bende Local Government Area lies between latitude 5º34 N and 5º56.7N and longitude 7º38E and 7º63.3E while Obi-Ngwa lies between latitude 5º06N and 5º60.00 E and longitude 7º21E and 7º59.99 E. Bende local government area is bounded in the north by Cross River State, Afikpo and Ohaozara, and in the South by Arochukwu and Ohafia, while Obi-Ngwa local government area is bounded to the north by Isiala Ngwa South and Isiala Ngwa North local government areas, to the east by Akwa Ibom state, to the south by Ukwa East local government area, and to the west by Ugwunagbo, Aba North, Osisioma Ngwa local government areas (National Bureau of Statistics, NBS, 2011).

### Data Collection and Analysis

Data for this study were collected through observation, in-depth interview, and administration of questionnaire. The communities were visited to observe and identify the wildlife species in selected communities. In-depth interviews were conducted with selected chiefs and chief priests of each community, and some members of the communities who have spent a minimum period of ten years in these communities, to confirm and complement information gathered through questionnaire administration. One set of questionnaire was administered to respondents who have lived at least 5 years in the selected communities. The set of questionnaires was administered to household representatives based on population of communities. For the purpose of this study, the communities were classified into large, medium and small based on population size as was done by Onuchukwu and Ijeomah (2020). Communities with more than 500 households, 300-500 households; and less than 300 households were classified as large, medium and small respectively. The questionnaire was administered to 50; 30; and 20 respondents in large, medium and small communities respectively as shown in table 1.

Data collected were analyzed using descriptive statistics in form of tables, means, percentages and frequency. Chi square was used to test for associations.

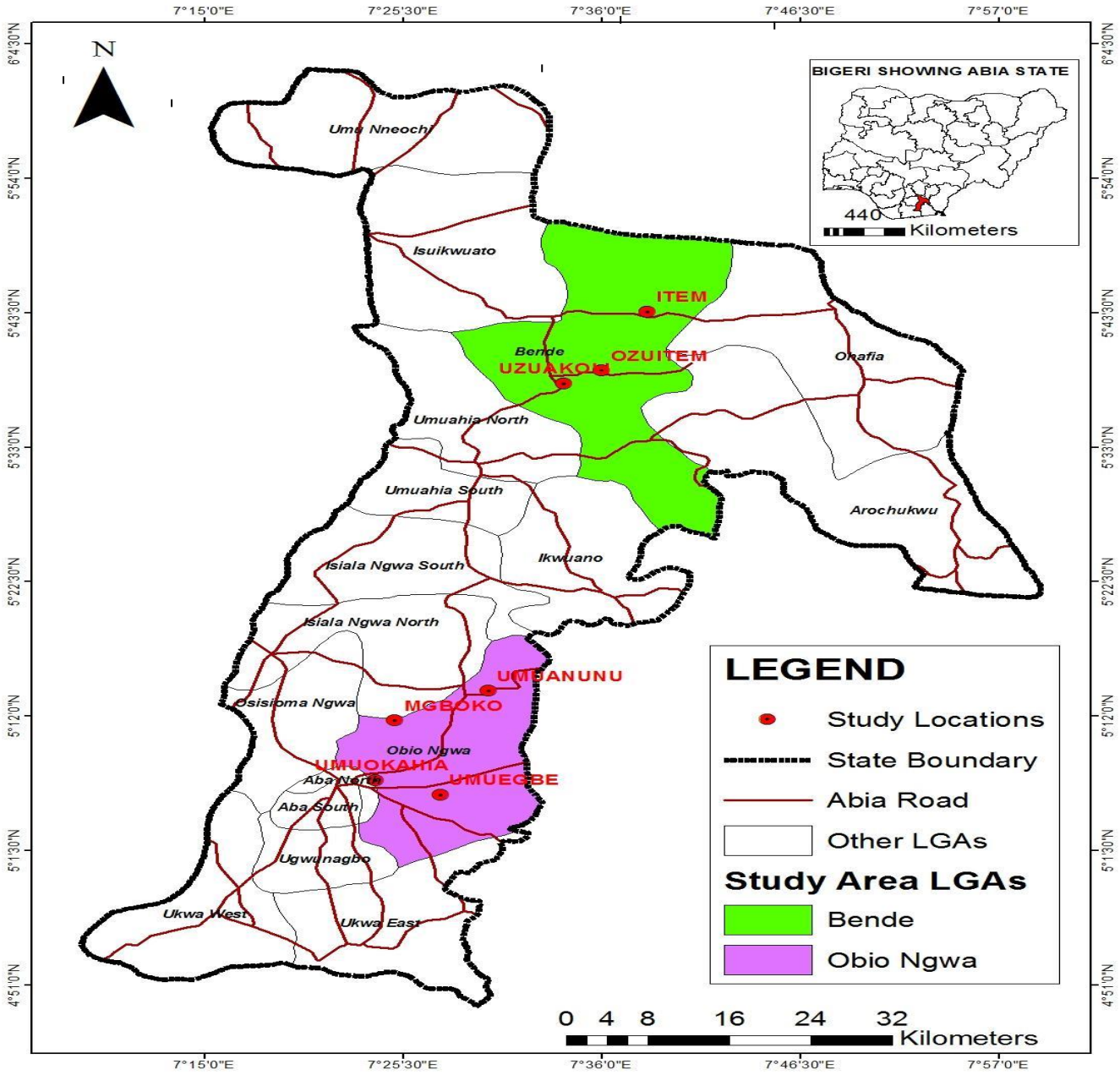


**Fig.1: Map of Abia state showing the six selected communities in Bende and Obi Ngwa Local government areas and map of Nigeria showing Abia State in inset**

**Table 1: Allocation of questionnaire to respondents in selected communities**

| Local Government Area | Communities | Class | No. of questionnaire administered | No. of Questionnaire retrieved |
|---|---|---|---|---|
| | Uzuakoli | Large | 50 | 44 |
| Bende | Item | Medium | 30 | 25 |
| | Ozuitem | Medium | 20 | 20 |
| Obi Ngwa | Umuokohia | Medium | 30 | 29 |
| | Mgbokoumuanunu | Small | 20 | 19 |
| | Umuegbe | Small | 20 | 18 |

## Results

**Indigenous Wildlife Conservation Practices**

Results on indigenous conservation practices are presented in Tables 1 to 4. Table 1 shows the wildlife species diversity and abundance under indigenous conservation in the study areas. From the table, Uzuakoli has the highest numbers of wildlife species (4) under indigenous conservation, with Green snake and Chameleon as the most abundant (88.00%). Apart from Item and Mbgokoumuanunu communities that have two species under indigenous conservation the remaining three communities (Umuokahia, Ozuitem and Umuegbe) have only one species each. The reasons for indigenous conservation of species in all the communities in the study area are presented in Table 2. They include the perception of the species as ancestors which eventually topped the list of reasons for indigenous conservation of wild animals in all the six communities.

The consequences of killing any of the sacred species in the study area were identified by most respondents and presented in Table 3. They include torment as indicated by 56.82% of the respondents in Uzuakoli, 42.11% in Mgbokoumuanunu and 60.00% in Ozuitem, death in Umuokahia (27.00%) and Mgbokoumuanunu (42.11%); and death and deadly sicknesses in Item (60.00%). The ways of reversing the repercussions for killing sacred species as presented in Table 4 were identified by most respondents as performing rituals, cleansing rights and burial and days of torment in the evil forests.

**Table 1: Wildlife species under indigenous conservation in the study area**

| Community | Specie common name | Scientific names | Frequency | % |
|---|---|---|---|---|
| Uzuakoli | Green snake | *Opheodrys aestivus* | 44 | 88.00 |
| | Chameleon snake | *Chameleo gracilis* | 44 | 88.00 |
| | Crocodile | *Crocodylus porosus* | 20 | 40.00 |
| | Small fish | *Tilapia zillii* | 18 | 36.00 |
| Umuokahia | Python | *Python regius* | 29 | 96.00 |
| Item | Bat | *Scotophilus dinganii* | 25 | 83.33 |
| | Vulture | *Necrosyrtes monachus* | 25 | 83.33 |
| Mgbokoumuanunu | Hyena | *Crocuta crocuta* | 19 | 95.00 |
| | Leopard | *Panthera pardus* | 7 | 35.00 |
| Ozuitem | Monitor lizard | *Varanus niloticus* | 20 | 100.00 |
| Umuegbe | Black kite | *Milvus migrans* | 18 | 90.00 |

**Table 2: Reasons for indigenous conservation of species in the study areas**

| Community | Reasons | Frequency | % |
|---|---|---|---|
| Uzuakoli | Protector of children | 11 | 25.00 |
| | Ancestors | 22 | 50.00 |
| | Ancestors / Protectors | 11 | 25.00 |
| | **Total** | **44** | **100.00** |
| Umuokahia | Ancestors | 23 | 79.31 |
| | Protectors | 6 | 20.69 |
| | **Total** | **29** | **100.00** |
| Item | Ancestors | 10 | 40.00 |
| | Evil spirit | 5 | 20.00 |
| | Mouthpiece of the gods | 10 | 40.00 |
| | **Total** | **25** | **100.00** |
| Mgbokoumuanunu | Ancestors | 11 | 57.90 |
| | Protectors | 1 | 5.26 |
| | Ancestors/counterparts | 7 | 36.84 |
| | **Total** | **19** | **100.00** |
| Ozuitem | Ancestors | 20 | 100.00 |
| Umuegbe | Ancestors | 16 | 88.90 |
| | Protectors | 2 | 11.11 |

| | | |
|---|---|---|
| **Total** | **18** | **100.00** |

**Table 3: Consequences of the killing the sacred species in the study area**

| Community | Consequences | Frequency | Percentage (%) |
|---|---|---|---|
| Uzuakoli | Run mad and die | 8 | 18.18 |
| | Torment | 25 | 56.82 |
| | Torment and flooding | 11 | 25.00 |
| | **Total** | **44** | **100.00** |
| Umuokahia | Death | 27 | 93.10 |
| | Calamity | 2 | 6.90 |
| | **Total** | **29** | **100.00** |
| Item | Death | 4 | 16.00 |
| | Deadly sickness | 6 | 24.00 |
| | Death and deadly sickness | 15 | 60.00 |
| | **Total** | **25** | **100.00** |
| Mgbokoumuanunu | Torment | 8 | 42.11 |
| | Death | 8 | 42.11 |
| | Punished and compelled to go to the evil forest | 2 | 10.52 |
| | No idea | 1 | 5.26 |
| | **Total** | **19** | **100.00** |
| Ozuitem | Torment | 12 | 60.00 |
| | Calamity | 7 | 35.00 |
| | No idea | 1 | 5.00 |
| | **Total** | **20** | **100.00** |
| Umuegbe | Run mad | 18 | 100.00 |
| | **Total** | **18** | **100.00** |

**Table 4: Ways of reversing the repercussions**

| Community | Methods | Frequency | Percentage (%) |
|---|---|---|---|
| Uzuakoli | Cleansing rights, rituals and burial | 33 | 94.29 |
| | Perform rituals | 2 | 5.71 |
| | Total | 35 | 100.00 |
| Umuokahia | Perform rituals | 3 | 100.00 |
| | **Total** | **3** | **100.00** |
| Item | Perform rituals | 5 | 21.74 |
| | Cleansing at Nvuvo river and rituals | 18 | 78.26 |
| | **Total** | **23** | **100.00** |
| Mgbokoumuanunu | Perform rituals | 2 | 28.57 |
| | Days of torment in the evil forest | 5 | 71.43 |
| | **Total** | **7** | **100.00** |
| Ozuitem | Perform rituals | 13 | 92.86 |
| | God is the ultimate | 1 | 7.14 |
| | **Total** | **14** | **100.00** |
| Umuegbe | Cleansing rights, rituals and burial | 4 | 22.22 |
| | Perform rituals | 14 | 77.78 |
| | **Total** | **18** | **100.00** |

**Effectiveness of Indigenous Conservation Practices**

Results on effectiveness of conservation practices are presented in Tables 5 and 6. As presented in Table 5, apart from Umuokahia and Item where most respondents stated that the existing conservation practices were very strong (62.07%) and strong (80.00%) respectively, the practices in all the other communities are either very weak or weak in terms of level of effectiveness. The Chi-square tests of association between perceived effectiveness and respondents' age, sex, religion and indigenship were not significant ($p>0.05$), while family size ($\chi^2 = 19.570^a$) and educational qualification ($\chi^2 = 37.275^a$) were respectively significant (Table 6).

**Table 5: Effectiveness of indigenous conservation practices in the study areas**

| Community | Level of effectiveness | Frequency | % |
|---|---|---|---|
| Uzuakoli | Very strong | 4 | 9.09 |
| | Strong | 0 | 0.00 |
| | Weak | 16 | 36.36 |
| | Very weak | 24 | 54.55 |
| | **Total** | **44** | **100.00** |
| Umuokahia | Very strong | 18 | 62.07 |
| | Strong | 11 | 37.93 |
| | Weak | 0 | 0.00 |
| | Very weak | 0 | 0.00 |
| | **Total** | **29** | **100.00** |
| Item | Very strong | 5 | 20.00 |
| | Strong | 20 | 80.00 |
| | Weak | 0 | 0 |
| | Very weak | 0 | 0 |
| | **Total** | **25** | **100.00** |
| Mgbokoumuanunu | Very strong | 0 | 0 |
| | Strong | 2 | 10.53 |
| | Weak | 7 | 36.84 |
| | Very weak | 10 | 52.63 |
| | **Total** | **19** | **100.00** |
| Ozuitem | Very strong | 1 | 5.00 |
| | Strong | 5 | 25.00 |
| | Weak | 13 | 65.00 |
| | Very weak | 1 | 5.00 |
| | **Total** | **20** | **100.00** |
| Umuegbe | Very strong | 0 | 0.00 |
| | Strong | 0 | 0.00 |
| | Weak | 5 | 27.78 |
| | Very weak | 13 | 72.22 |
| | **Total** | **18** | **100.00** |

Table 6: Summary of result on Chi-square test of association

| Parameter | Calculated Chi-square ($\chi^2$) | P Value | d f | Significance | Inference |
|---|---|---|---|---|---|
| Age of respondents with effectiveness | 8.913[a] | 0.179 | 6 | p>0.05 | No Significant association |
| Sex of respondents with effectiveness | 6.733[a] | 0.081 | 3 | p>0.05 | No Significant association |
| Family size of respondents with effectiveness | 19.570[a] | 0.021 | 9 | p<0.05 | Significant association |
| Religion of respondents with effectiveness | 7.618[a] | 0.055 | 3 | p>0.05 | No Significant association |
| Educational qualifications of respondents with effectiveness | 37.275[a] | 0.000 | 12 | p<0.05 | Significant association |
| Indigenship of respondents with effectiveness | 0.943[a] | 0.815 | 3 | p>0.05 | No Significant association |

**Respondents' Perceptions and Challenges of Conservation Practices**

The results on perceptions and challenges of indigenous conservation practices are presented in Figures 1 and 2 and Tables 7 and 8. As shown in Figure 1, most of the respondents perceived that members of their communities are compelled to observe conservation practices in Item (92.00 %) and Mgbokoumuanunu (68.42%). Most of the respondents perceived indigenous conservation practice to be important (Figure 2). As presented in Table 7, the majority of the respondents from all the communities claimed that the conservation practices were good. The effects of Christian religion topped the list of challenges concerning indigenous conservation practices in the study areas (Table 8).

**Table 7: Perception of respondents concerning indigenous conservation of wildlife species in the study areas**

| Communities | Variables | Frequency | % |
|---|---|---|---|
| Uzuakoli | Good | 30 | 68.18 |
| | Bad | 0 | 0.00 |
| | Useless | 14 | 31.82 |
| | **Total** | **44** | **100.00** |
| Umuokahia | Good | 21 | 72.41 |
| | Bad | 0 | 0.00 |
| | Useless | 8 | 27.59 |
| | **Total** | **29** | **100.00** |
| Item | Good | 17 | 68.00 |
| | Bad | 1 | 4.00 |
| | Useless | 7 | 28.00 |
| | **Total** | **25** | **100.00** |
| Mgbokoumuanunu | Good | 11 | 57.89 |
| | Bad | 0 | 0.00 |
| | Useless | 8 | 42.11 |
| | **Total** | **19** | **100.00** |
| Ozuitem | Good | 11 | 55.00 |
| | Bad | 0 | 0.00 |
| | Useless | 9 | 45.00 |
| | **Total** | **20** | **100.00** |
| Umuegbe | Good | 12 | 66.67 |
| | Bad | 1 | 5.55 |
| | Useless | 5 | 27.78 |
| | Total | 18 | 100.00 |

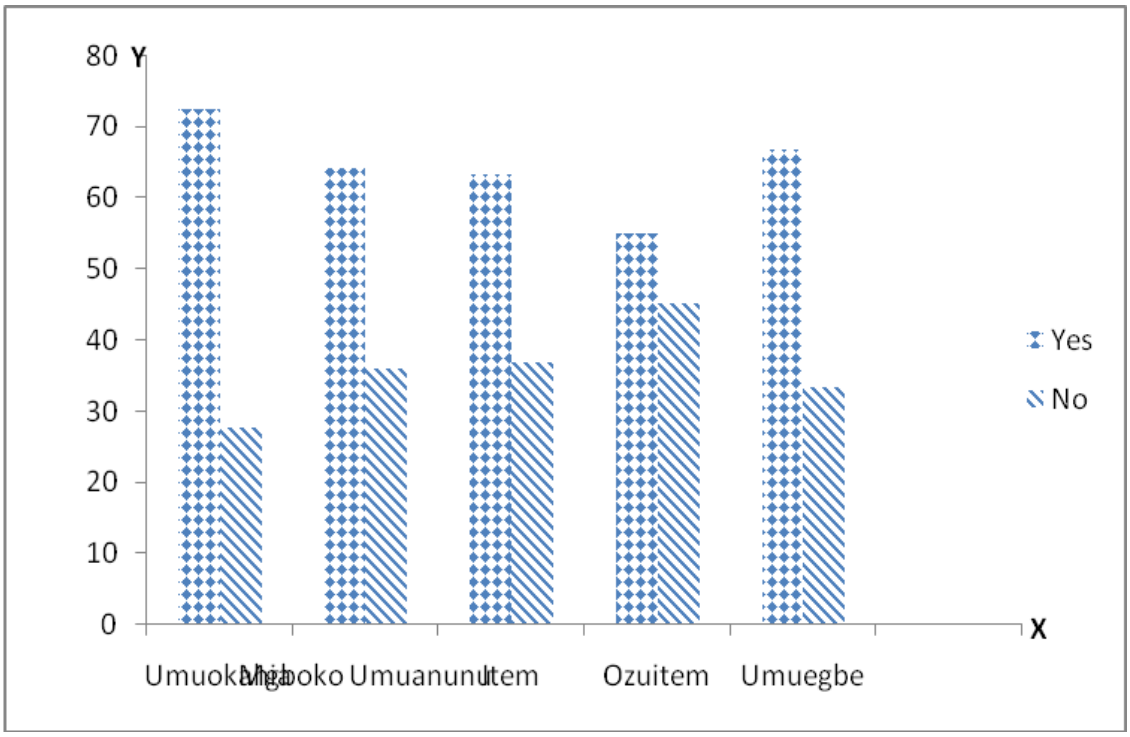


**Figure 2: Respondents' response on if they were compelled to observe the conservation practices**

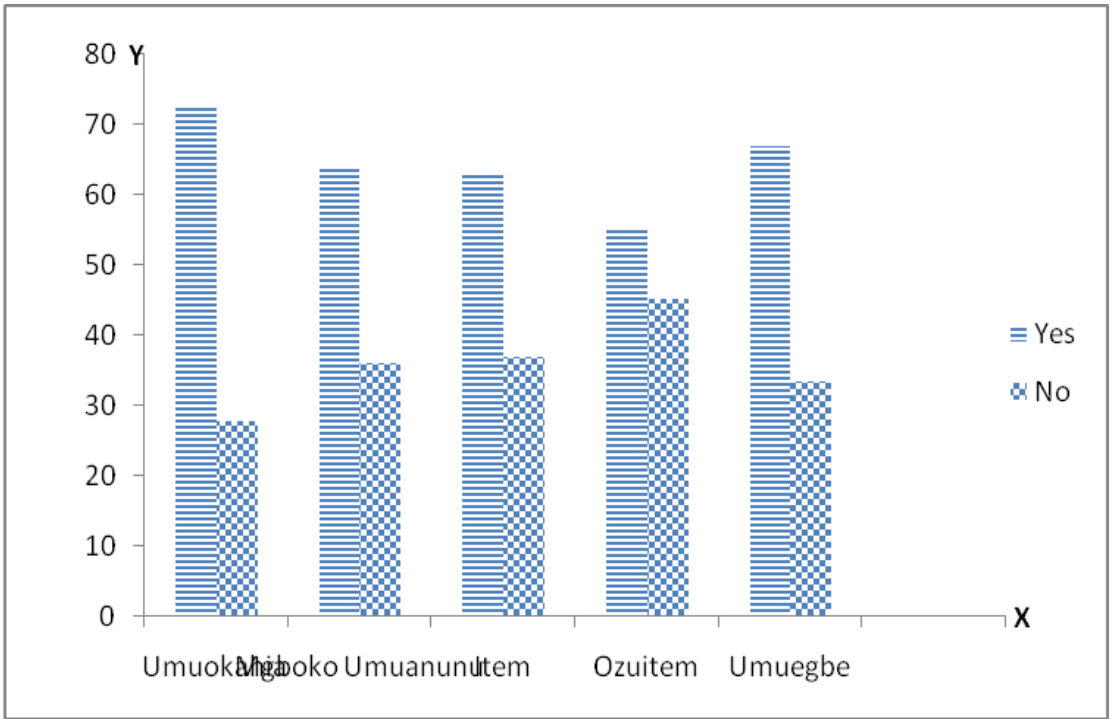


**Figure 3: Respondents' Perception of the importance of indigenous conservation practice**

**Table 8: Challenges of indigenous conservation practices**

| Community | Challenges | Frequency | % |
|---|---|---|---|
| Uzuakoli | Christianity | 21 | 47.72 |
| | Hunting and disobedience | 7 | 15.91 |
| | Absence of traditional ruler and chief priest | 7 | 15.91 |
| | Ignorance | 4 | 9.09 |
| | Insufficient awareness | 1 | 2.27 |
| | Disbelief | 2 | 4.55 |
| | None | 2 | 4.55 |
| | **Total** | **44** | **100.00** |
| Umuokahia | Christianity | 13 | 44.83 |
| | None | 16 | 55.17 |
| | **Total** | **29** | **100.00** |
| Item | Christianity | 13 | 52.00 |
| | Ignorance | 1 | 4.00 |
| | Absence of chief priest | 3 | 12.00 |
| | None | 8 | 32.00 |
| | **Total** | **25** | **100.00** |
| Mgbokoumuanunu | Christianity | 13 | 68.42 |
| | Hunting and disobedience | 6 | 31.58 |
| | **Total** | **19** | **100.00** |
| Ozuitem | Christianity | 12 | 60.00 |
| | Hunting and disobedience | 2 | 10.00 |
| | Insufficient awareness | 3 | 15.00 |
| | Ignorance | 3 | 15.00 |
| | **Total** | **20** | **100.00** |
| Umuegbe | Christianity | 10 | 55.56 |
| | Civilization | 6 | 33.33 |
| | Faded practice | 2 | 11.11 |
| | **Total** | **18** | **100.00** |

## Discussion

The sacred species in Uzuakoli are the green snake (*Opheodrys aestivus*), Chameleon (*Chameleon gratilis*), Crocodile (*Crocodylus nilotica*) and Small fish (*Tilapia zilli*). The green snake and chameleon are both sacred because they are perceived as ancestors of Uzuakoli and protect the children of the community. The uniqueness of this is that despite the fact that green snake feeds on mice and small animals (including lizards and chameleon) it co-exists in the community with both humans and chameleon. A similar conservation practice exists among the Tivs of Benue State in Nigeria but with a different belief. In Benue State, the green snake (*Opheodrys vernal*) called "*Ikayarem*" in the local dialect is believed to have helped the Tivs in crossing River Congo in Central Africa and therefore they decided not to be killing them (Dagba *et al*., 2013).Green snakes and chameleons are the most popular sacred species in Uzuakoli community. The crocodile (*Crocodylus nilotica*) is also a sacred species in Uzuakoli. It is perceived as an ancestor of Uzuakoli; which in collaboration with other ancestors ensures the protection of the community members. Crocodile is held sacred in some other parts of Nigeria for similar or different reasons: In Mbiri community in Ika north east Local Government Area of Delta state, consumption of crocodile is forbidden (Emelue *et al.*, 2014), in Agulu lake in Aniocha Local Government Area of Anambra State it is sacrilegious to kill a crocodile as they are seen as gatekeepers of the community. Also in lake Adigbe of Ossiama Kingdom in Bayelsa state, the killing of crocodile is prohibited because it is regarded as the peoples' brother (Anwana *et al*., 2010).

The small fish (*Tilapa zilli*) as commonly called in Uzuakoli is also a sacred species found in Ihi Nzu River. This species is considered sacred because it is also perceived as an ancestor and protector of the community. It is an ancestor under the water goddess, *Idemili*. This species of fish is eaten in other parts of Abia state. Inhabitants of the community are prohibited from killing or harvesting any fish from Ihi Nzu River for any reason. This agrees with the observation of Meek (as cited by

Nwashindu and Ihediwa, 2015) in Okpanku area of Aninri local council of Enugu state, where the male members of the village have no *chi* (gods) symbols (traditional mace - *ofo*), (or what physically represent their ancestors), but believe that their spirits reside in the fish of the river, Ivo, and that each fish is part of man's *Obi* (heart) or vital essence. When a man dies, his soul goes to Ivo and Ivo gives it back to *chi-okike* (the creator).

This also agrees with the report of Nwashindu and Ihediwa (2015) that fishing in a particular river in Eha-Amufu (Nsukka area in Enugu state) is forbidden because *Ebe* (the spirit of the river) controls the fish in that particular river. The big fishes are believed to be the counterparts of the principal men of the village-group, while the fries are the counterparts of persons of no consequence or significance in the society. Thus, when a villager dies, a fish dies, and when a fish dies a villager dies. It was also believed that the killing of any of these sacred species could lead to madness, death, torment and flooding of one's house if cleansing rituals and proper burial ceremony for the species killed is not performed. They also believe that the water of Ihi Nzu river could follow the person that kills any fish in the river to his/her house and this could lead to the flooding of only the person's house. This water remains only in that house till proper rituals are done. This partly agrees with the report of Onwuka (2020) that crocodiles and fishes in Agulu lake. Anambra state are sacred. Crocodiles were believed to have protected the inhabitants of Agulu from enemy soldiers during the Nigerian civil war by changing into beautiful ladies and lured the soldiers unawares into the lake where they vanished. If the crocodile is killed the killer becomes highly impoverished by losing all his wealth within a very short time. The killer must therefore be cleansed, based on the demands of the deity before he can be free (Onwuka, 2020).

In Umuokahia community of Obi Ngwa local government area, Python (*Python regius*) is the sacred species being perceived as an ancestor and a protector. The python resides in the shrine with the chief priest. The species moves around the community but does not harm the indigenes of the community as they are its descendants. On sighting this python, members of the community will speak their local dialect to inform it that they are its descendant and, the python will immediately nod its head and clears the road for them. Different places have different reasons for conserving pythons. The royal python was the most revered animal in Mbanta and all the surrounding clans (Achebe, 1958). This is similar to the report of Deb and Malhotra (2001) in the worship of python in West Bengal kingdom where there was evidence that the reptile was associated with success in war.

Similarly, the natives of Useifrun and Ujevwu communities in Delta state believed that it was Python that assisted them to escape during inter-tribal wars by following them and deleting their footprints (Udodiong, 2019). This act prevented the enemies from tracing them to their hideouts. Python is indigenously conserved in some communities in Bayelsa, Imo, Delta, Anambra and Yobe states (Ijeomah, 2012). In Dikenafai community of Ideato South Local government Area of Imo state, Python was believed to be the messenger of the Urashi River (Ijeomah *et al*., 2007).The consequence of killing the sacred species in Umuokahia community is death. Ceremonies done in favour of the python always require human heads. So, if anyone kills a python, his/her life must also be given to the gods as the atonement for the sacrilege.

In Item community of Bende local government area, Bat (*Scotophilus dinganii*) and Vulture (*Necrosyrtes monachus*) are the sacred species under indigenous conservation practice. These species are perceived to be the ancestors and messengers, they are the mouth piece of the gods. They are used to communicate messages to the chief priest, particularly bad news by the gods of the land. When trouble or calamity is about to befall the people, the gods will pass the information to the community through these species. So, any time these species are sighted in Item, it is a signal that a calamity is about to befall them. This agrees with Emelue *et al.* (2014) that in Ika north east local government area of Delta state, the killing or consumption of bat is prohibited because bat is regarded as a sacred species. Also, the Etruscan and Romans consider Vulture as messengers of the gods while for the Egyptians, vultures are the deities' emblems of motherhood, who can give and also take life (kushwaha, 2016).

The consequence of killing the sacred species in the community is death and deadly sickness except an adequate cleansing ritual is done in Nvuvo river as directed by the deity through the chief priest.

In Mgbokoumuanunu community of Obi Ngwa LGA, Hyena (*Crocuta crocuta*) and Leopard (*Panthera pardus*) are the sacred species under the indigenous conservation practice. Hyena is considered to be the ancestor that led the people to their present place of settlement so killing of this animal is prohibited. The leopard is regarded as the counterpart of the people. The indigenes can turn into a leopard and do whatever pleases him to his enemies or even family, and they use this as a form of defence mechanism. Similarly, Meek as cited by Nwashindu and Ihediwa, 2015) observed that in Lokpanta of Umunneochi, Abia state leopards are sacred to the kindreds of Umu-Ago and Umu-ohe, and it is believed that any member of this community can turn to a leopard, and in this guise, steal the goats of anyone he dislikes.

None adherence to this conservation practice has consequences which includes torment by the gods, going to the evil forest and death. The killer of leopard will be tormented by the gods, as the person starts seeing strange things everywhere, and it appears as though he/she is running mad. The torment occurs when one kills the sacred species secretly. If the sacred species is killed accidentally and the killer confesses, he is taken to the evil forest without food and abandoned there for some days where the gods will examine him to confirm that his claims of killing the animal by accident is true. In cases where the killing was intentional and the killer confesses due to torment he/she is also sent to the evil forest and the gods decide if the killer comes out alive or not, in some cases they don't come out alive.

In Ozuitem community of Bende LGA, Monitor lizard (*Varanus niloticus*) is the sacred species indigenously conserved. This species co-habits with humans freely; they are the ancestors of the community, reverenced by inhabitants. They do not harm humans, they exhibit peaceful co- existence with humans and are not killed as they are representatives of their ancestors on earth. This agrees with the report of Emelue *et al*., (2014) on indigenous conservation of monitor lizard as a sacred species in Umunede community of Ika North East LGA of Delta state. The repercussions of killing this sacred species are torments and calamities. The killer will be severely tormented by the gods of the land until rights and rituals are done as directed by the chief priest. The calamities include sickness and death of the first male children of the family unless rituals are done properly.

In Umuegbe community of Obi Ngwa local government area Black kite (*Milvus migrans*) popularly called "*Egbe*" in the local dialect is the sacred species conserved indigenously. The black kite is also an ancestor of the community as the name implies Umuegbe meaning "Children of Egbe". They believe that the kite is their ancestor from time immemorial. It is said that the kite rescued them by confusing and distracting their enemies who were after their ancestors during the war. This gave them time to run further and escape from the enemy and the kite still led them to an appropriate place to settle. Similar to the reason for considering black kite sacred, the report of Ijeomah *et al* (2007) shows that giant rat (*ewi*) is considered a sacred species in Nnewi, Anambra state because the species is perceived as the mother of the community. *Egbe* is also indigenously conserved in Amankwo community of Bende Local Government Area where it is respected and given unalloyed allegiance as respondents believed that the species has supernatural powers and therefore should not be killed or consumed. The consequence of killing the black kite in Umuegbe is instant madness until cleansing rights and rituals are done and a befitting burial ceremony is also done for the animal.

The level of effectiveness of these practices varies with communities. These conservation practices are usually more effective in communities where there is no remedy once disobeyed. The conservation practices were observed to have faded in Uzuakoli community despite the fact that most respondents perceived the practice to be good and important. The two prevailing species in Uzuakoli are well known due to the fact that the conservation practice tend to be more recent compared to others. In the case of the crocodile, the low level of effectiveness can be attributed to the fact that only the older indigenes of the community have detailed information about the practice. The low level of effectiveness in the conservation of the small fish can be ascribed to the fact that members of the neighbouring villages feed on the fish species, most times people sneak in from other communities to harvest this fishes and sneak out.

In Umuokahia the practice is seen to be very strong because the penalty for defaulting is death, even with the rise of Christianity people are still afraid to kill pythons.

In Item, it is also observed that the conservation practices are strong considering the death consequences and the majority of the people that supported the practice.

In Mgbokoumuanunu,Ozuitem and Umuegbe, the practices are either very weak or weak and fading away even though a greater percentage feel it is good and important. Each community is faced with specific challenges which affected the existence of these practices. The inability to see these animals in the communities indicates that their cultures and traditions have deteriorated. Hunting and selling of these species in communities where they are eaten could be further reasons for the scarcity of the species in these communities.

The advent of religion is another major challenge to indigenous conservation practices. Religious adherence finds it very difficult to support the continuation of the practices. Christianity is a popular religion in these communities and as a result no one wants to be tagged as an idol worshipper. Most chief priests resigned when they became Christians. Lack of chief priests has therefore made the enforcement of these conservation practices to be very difficult. This corroborates the findings of Ijeomah *et. al*. (2011) on the resignation of a chief priest in Lagwa community of Imo State. Ignorance is also a challenge as non-indigenes who are not aware of the tradition may unknowingly kill these species. Even indigenes, especially the youths who are not adequately informed concerning the history of these conservation practices, would want to discontinue with the practice when there is opportunity to do so. Civilization has also

weakened these indigenous conservation practices in these communities.

## Conclusion and Recommendation

Indigenous conservation practices are still in existence in the study area but with different levels of popularity and effectiveness. The fact that the level of effectiveness is reducing in many of the communities is an indication that with time the practices could be eroded in the study area. For the areas where the practices are still well observed, this conservation strategy has helped in the protection of many endangered species. Indigenous conservation practices are very important and should therefore be encouraged to complement the activities of national parks and game reserves. The practices, though seriously facing several challenges at present, have enhanced the protection of some specific wildlife species and should therefore be supported with policies to ensure that they are sustained. It is only death (as penalty for defaulting) that can guarantee the sustainability of any indigenous wildlife conservation practice in the study area that is not supported by Christianity.

Members of the communities should be made to understand that irrespective of the increase in the level of education, new religious awareness, civilization and exposures of individuals in the society, their cultural heritage should be preserved in other to avoid complete dislocation from their history and tradition. There is need to involve religious organisations in enlightenments that will support indigenous conservation practices. The government should make policies that promote indigenous wildlife conservation practices in Nigeria. Indigenous conservation practices can also be made to attract different types of tourists. The benefits derived by members of the community from tourists could make them support and sustain the practice.

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