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LOCAL PERCEPTION ON WILDLIFE USES AND RELATED LOSS OF CULTURAL VALUES AROUND THE NKWENDE HILLS FOREST RESERVE, SOUTH-WEST CAMEROON

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ABSTRACT:

The present study aims at documenting on the uses of wildlife by the Lower-Oban clan around the Nkwende Hills Forest Reserve (NHFR). Structured interviews were realised in 126 randomly chosen households in seven villages. We recorded the use of 52 species constituted of 26 mammals, 12 bird groups, eight reptiles, five fishes and one invertebrate. Four wildlife use categories were identified. Species like Ogylbi's and blue duikers, African grey parrots, Pythons, Mud suckers and Electric catfish are the most traditionally used. Species like Leopards and Chimpanzees are locally extinct and seemed to be replaced by other species to perform the same traditional ceremonies. High priority should be given to the conservation of species with high values for local communities.

KEY WORD: *Conservation, Culture, Nkwende Hills reserve, Traditional use categories, Wildlife.*

INTRODUCTION:

Scientific research is revealing an ever increasing number of links between biodiversity and human beings, not only in terms of assuring food resources, but also in terms of assuring medicinal, material and traditional uses. According to Doumenge *et al*. (2001), Cameroon forests are primordial for the conservation of African biodiversity, but they are continually facing alarming

threats. Threats to wildlife are continuous, and many species are getting either very scarce or locally extinct, meanwhile others are less known thus need to be studied. Because of the importance of biodiversity to local communities, integrated conservation measures for sustainable management seems to be appropriate (Kideghesho, 2008). Increased consideration for traditional uses of wildlife have shown success in solving important conservation problems related to human-wildlife conflicts (Bobo and Weladji, 2011). The present study aims at documenting on the traditional uses of wildlife in the Nkwende hills area (NHA) in South-west Cameroon.

STUDY AREA

The present study was carried out in seven villages located around the Nkwende Hills Forest Reserve (NHFR) in South-west region of Cameroon. The rainfall is about 5000 mm per year and the mean annual temperature is about 25°C (Zimmermann, 2000). The forest at present is a secondary forest in the surrounding villages due to logging and agricultural activities. The mammal, reptile, bird and amphibian fauna is similar to that of Korup National Park (KNP). About 130 fish species are known from the area (Reid, 1989). The Lower-Obang people, the Ngunnchang and the Obang communities, inhabit this area (Aghomo, 2011).

METHODS:

The study was carried out in seven villages (Abat, Mgbegati, Bayib-ossing, Osselle, Okoroba, Mbinda-Tabo and Bakogo) located at the North-western part of NHFR. A questionnaire survey was addressed in 126 households from July to September 2011. The sampled households in each village ranged between 25 to 57.1%. Household Respondents (HRs) were any adult family member met at home. Preference was given to the family head who was considered to be the eldest, the principal hunter, originating from the village, and suggested to have better knowledge concerning cultural and traditional practices in relation to wildlife. In case of his absence, preference was given to the eldest child. In each household, questions were asked to assess their awareness about wildlife used in their culture or tradition. Furthermore, self-observation and discussions with villagers of all age and sex during meetings and community works helped for cross checking. Loss of cultural values was deduced from knowledge on species uses in the area.

RESULTS AND DISCUSSIONS:

Result reveals that 99.7% of HRs recognised the effective use of 52 wildlife species in their culture and traditions. Globally, four wildlife use categories were identified (Lohani, 2010). These were species with Food, medicine and sales values (FMSV) (41.2%), Ethnomusical values and parts used as trophy (ETV) (29.2%), Decoration and jewellery making values (DJV) (21.9%) and Magico-religious and multipurpose

values (MMV) (7.8%). Uses either included the whole animal bodies, the body parts, or products extracted from the animal.

Traditional uses of mammals

In our study area, 26 mammals were confirmed to possessed traditional uses. All four use categories were identified: 41.7% of mammal species had a FMSV, 33.9% had an ETV, 13.2% had a DJV and 11.1% had a MMV. Figure 1 presents the distribution of mammals per use category in the area.

Species like *Cephalophus ogylbi, Cephalophus monticola, Loxodonta Africana, Panthera pardus* fall under the four use categories. FMSV were prominent for species like *Pan troglodytes* (22.1%), *Perodicticus potto adwardsi* (19.5%), *Funisciurus sp.* (16.8%) and *Gorilla gorilla* (7.6%). These species were confirmed to be used by locals but they are already very scarce in the area thereby leading to their limited use in the culture and traditions. Besides being the most common species presently available for consumption in the area, parts of *C. ogylbi* (33.2%) and *C. moniticola* (36%) were cherished for ETV (as in Lohani, 2010). *Civettictis civetta* (25%) and a very scarce and locally extinct species like *Panthera pardus* (33.3%) are known to have DJV values; their skins are used as carpets for chiefs and as totems. The teeth of *Potamochoerus porcus* are also used for jewellery making (8.4%). *C. ogylbi* (56.8%) and *Panthera pardus* (9.9%) were the most cherished species with MMV; *C. ogylbi* is used to appease and communicate with ancestors during liberation, marriage and death ceremonies, and the skin of *Panthera pardus* is used to decorate sacred halls during death ceremonies (Aghomo, 2011).

It is without doubt that we confirm that the extinction of species like *Panthera pardus* is certainly driving certain cultural manifestations to also extinction, and local communities to modify their cultures in other to avoid the disappearance of those cultural manifestations. For e.g. the skin of *Panthera pardus* has been replaced by the skin of *Civettictis civetta* for the same purposes. Plates 1 to 6 are examples of traditionally used mammals or their parts in the NHA.

Traditional uses of birds

We recorded 12 bird species groups that have traditional uses. Three use categories were recorded. There were no species group with ETV, 43.8% with FMSV, 53.7% with DJV and 2.6% with MM. Most bird species parts are known to be used for decorating traditional caps where they denote hierarchy between members of traditional societies (Bobo and Ntumwel, 2010). Figure 2 presents the distribution of bird species groups per use category in the study area.

African grey parrot *Psittacus erithacus* and certain eagle species are the most used and represented 39.7% and 33.6% of species with DJV. The red tail feathers of *Psittacus erithacus* (plate 7) and the white feathers of crowned eagles *Stephanoaetus coronatus* and palmnut vulture *Gypohierax angolensis* are used to decorate caps of members of the traditional council and Ekpe sacred society. FMSV are also noticed for

Psittacus erithacus (34.5%), hornbills (31.9%) and eagles (12.6%); several parts (head, feathers) or the entire animal (plates 7, 8 and 9) are purchased by foreigners (Chakravorty *et al.*, 2011).

Traditional uses of reptiles

The present study confirmed traditional uses of eight reptiles in the NHA. Three use categories were identified. ETV, FMSV and DJV represented 66.6%, 28.6% and 4.8% of uses respectively. The skins of most large reptiles are used for making drums and also conserved as trophies. This usually indicates a sign of courage for hunters who succeeded in killing species like pythons and Crocodiles. Figure 3 presents the distribution of reptiles per use category.

Species with a greater ETV are crocodile *Crocodylus niloticus* (36.9%), Python *Python sebae* (25%), Varanus *Varanus niloticus* (16.7%) and Tortoise *Kinixys sp.* (13.1%). Their skins are cherished for making drums; the shell of the tortoise is used as a musical instrument to assemble villagers or announce messages in the village. Species with important FMSV are Pythons (55.6%) and Vipers *Bitis nasicornis* (30.6%). Fats extracted from the bodies of pythons (plate 10) are used for massage, treating fractures and rheumatism (Lohani, 2010) and for treating snake bites; teeth of vipers are used for enhancing abundant flow of breast milk, treating abscesses and snake bites (Alves *et al.*, 2008). These species are still very abundant and continue to play their roles in the culture though pythons are getting scarcer. Plates 11 and 12 present parts of reptiles with ETV.

Traditional uses of fishes

Five fish species were confirmed to have traditional values in the study area. However, only FMSV use category was recorded for fishes. Electric catfish *Malapterurus electricus*, Mud sucker *Labeo coubie* and Giant mud fish *Heterobranchus sp.* are cherished for treating cardiovascular diseases when consumed. The Crab (*Emerita sp.*, *Blepharipoda sp.*) is also consumed but is primarily used to treat Eczema (Deb and Haque, 2011).

Traditional uses of invertebrates

In the study area, only snails were confirmed to have FMSV: When the 'sticky/slippery' liquid from snail body is purged by pregnant women, it facilitates the labour. Snails are also known for treating kidney infections when consumed. Their shells have a DJV.

CONCLUSION:

Apart from consumptive uses of wildlife in the study area, wildlife occupies an important place in the culture and tradition of local population. However, species detected to be most useful can easily be overexploited and become threatened to local extinct (Costa-Neto, 2005) as for the *Panthera pardus* (leopard) and the *Pan troglodytes* (chimpanzee). To avoid acculturation and to promote local participation

in conservation, priority should be given to the conservation of species with high values for local communities.

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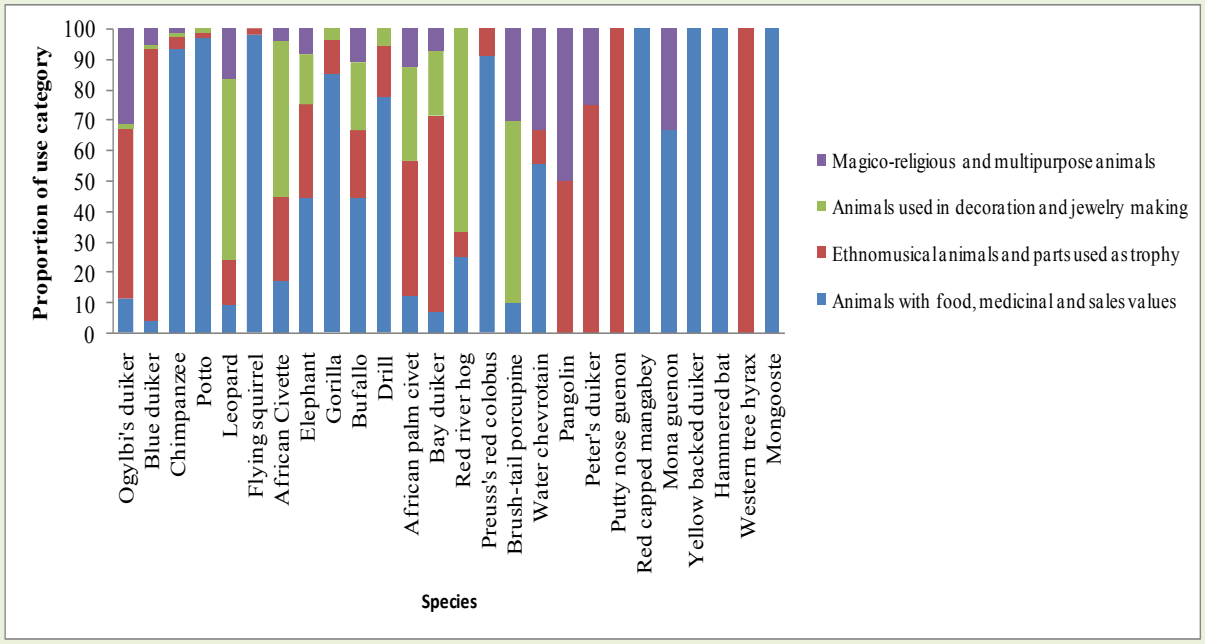

Figure 1: Distribution of mammals per use category

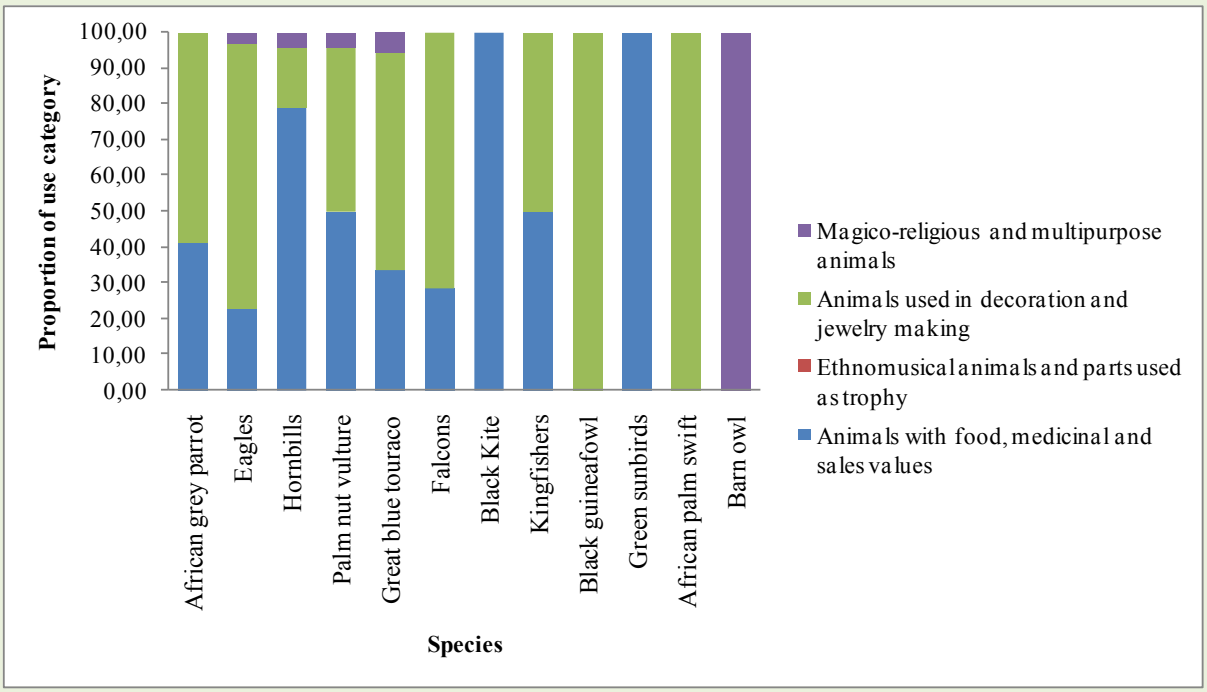

Figure 2: Distribution of bird species groups per use category

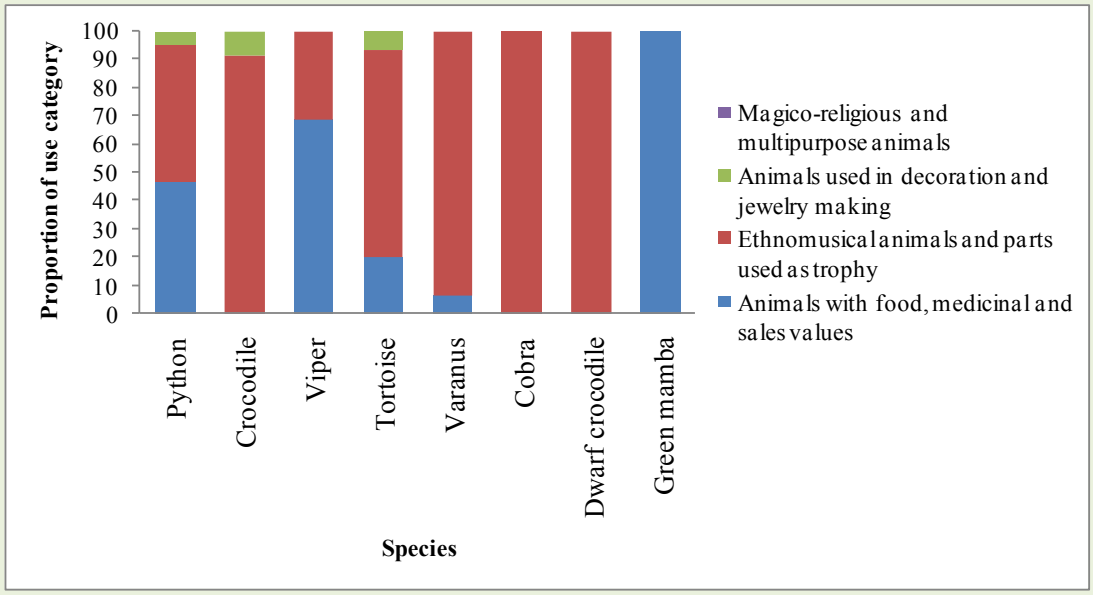

Figure 3: Distribution of reptiles per use category

Plate 1 : Blue duikers and porcupine harvested for consumption and sales

Plate 2: Bone of a chimpanzee used for fortifying children less than 10 years old

Plate 3: Locally produced drums using the skin of Ogylbi's duiker

Plate 4: Tooth of a Red river hog and spine of a porcupine used for decorating the cap of chiefs of the Ekpe sacred society

Plate 5: Skin of an African civet used to represent a totem in the household

Plate 6: Horn of a buffalo used as a musical instrument

Plate 7: African grey parrot sold alive to foreigners

Plate 8: White feathers of the palmnut vulture used to decorate caps

Plate 9: Head of a Black casqued wattle hornbill sold to foreigners

Plate 10: Fats extracted from the body of a python used for medicinal purposes

Plate 11: Shells of tortoise used as musical instruments to announce messages

Plate 12: Skin of a *Varanus sp*. conserved as a trophy