

## THE WILDLIFE TRADE IN GHANA: A THREAT TO BIODIVERSITY CONSERVATION

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### Abstract

The rich biodiversity of Ghana is currently under threat from anthropogenic influences, including local and international trade in wildlife. This study investigated the effect of this trade on biodiversity conservation initiatives in Ghana. The study involved the use of interviews and structured questionnaires administered in four towns in the Eastern and Greater-Accra regions of Ghana. The results indicated that the level of awareness of wildlife laws was high among the exclusively male dealers in the trade. Trapping was the most widely used hunting method, and involved some brutality to the captured animals before they were finally killed. Export permit fees charged by the Wildlife Division were found to be very low and, based on uncertain international market prices, pose potential threats to the national economy and wildlife heritage. It is recommended that a policy framework should be developed to regulate the production and use of killer traps in hunting of wildlife. Export permit fees and penalties for non-adherence to wildlife laws also need to be increased to high levels to serve as a deterrent to the over-harvesting and exportation of wildlife.

### Introduction

As a critically important resource, wildlife meets the food and other livelihood requirements of human communities worldwide. Bushmeat (the meat of wild animals) is an important source of protein especially for rural communities throughout Africa (Ntiamoa-Baidu, 1997). Increasing human population has resulted in severe pressure on wildlife populations due to

### Résumé

ODONKOR, S., GBOGBO, F., ATTUQUAYEFIO, D. & BIMBI, L.: *Le commerce d'animaux sauvages au Ghana: Une menace à la conservation de biodiversité.* La biodiversité riche du Ghana est actuellement menacé de l'influence d'anthropogénie y compris le commerce local et international d'animaux sauvages. Cette étude enquêtait l'effet de ce commerce sur les initiatives de la conservation de biodiversité au Ghana. La méthodologie entraînait les interviews et les questionnaires structurés appliqués en quatre villes dans les régions de Eastern et de Greater-Accra du Ghana. Les résultats indiquent que le niveau de sensibilisation de lois d'animaux sauvages était élevé parmi les négociants exclusivement mâles du commerce. La prise au piège était la méthode de chasse la plus généralement employée, mais ceci entraînait beaucoup de violence pour les animaux capturés avant d'être finalement tués. Le droit de permis d'exportation facturé par le département de la faune et la flore est considéré d'être trop bas et basé sur les prix incertains du marché international, posant une menace potentielle à l'économie nationale et à l'héritage de la faune et la flore. Il est recommandé qu'un cadre de principe soit développé pour régler la construction et l'utilisation des pièges tueuses pour la chasse d'animaux sauvages. Les droits de permis d'exportation et les pénalités pour la non-adhésion aux lois d'animaux sauvage exigent également d'être augmentés aux niveaux élevés pour avoir un effet dissuasif à la chasse excessive et l'exportation d'animaux sauvage.

over-harvesting, with potential threats to local and global biodiversity. Ghana's ecosystem is considered as one of the world's priority biodiversity conservation areas because of its rich faunal diversity and high degree of species endemism (CI-Ghana, 1999). This rich biodiversity is currently under threat from both natural and anthropogenic influences, with some species of mammals, birds and reptiles currently under threat

(WCU, 1996).

Over the years, increasing numbers of people have become involved in the wildlife trade in Ghana as hunters, traders and exporters, and a number of Ghanaian faunal species face extinction as a result (Kassim, 2002). While this trade could contribute substantially to household incomes in both rural and urban communities, as well as the national economy (Ntiama-Baidu, 1997), wildlife is a limited resource that needs to be used sustainably to avoid local extinctions (CI-Ghana, 2002). Wildlife populations in parts of Africa are dwindling as a result of over-exploitation and habitat destruction caused by increasing human populations and the associated demands for agricultural land (Ntiama-Baidu, 1997), as happened to Miss Waldron's red colobus (*Piliocolobus badius waldroni*) which has been declared locally extinct in Ghana (<http://nationalzoo.si.edu/Publications/ZooGoer/2004/5/colobus.cfm>). The bushbuck (*Tragelaphus scriptus*), which is the ceremonial animal of the 'Aboakyir' Festival of the Effutu people in the Central Region of Ghana, has been hunted to local rarity and possible extinction, posing a threat to this socio-culturally and economically- important festival (EPA, 2005; Wuver and Attuquayefio, 2006).

The study investigated the effects of the wildlife trade on biodiversity conservation in Ghana, specifically (i) its economic and socio-cultural impacts, (ii) methods involved in the capture of the wild animals, (iii) market values of species involved, and (iv) factors motivating the export of wild animals in Ghana. It is hoped that the study will provide useful background information for the development of conservation and management plans for wild animals in Ghana.

### Experimental

The study was undertaken in selected towns in the Eastern and Greater Accra regions of Ghana, notably Kibi, Ankaase and Anyinam in the East Akim District, and Achimota in the Accra

Metropolitan Area during February and March 2006. These communities are noted for their heavy involvement in the wildlife trade, and the display of both live animals and carcasses along the highways passing through these areas is a common sight. In each community, traders and hunters of wild animals plying their trade along the highways, were interviewed. This involved reading out questions from a structured questionnaire, and translating them in a local Ghanaian language with the help of local interpreters where necessary. The questionnaire was designed to investigate the general profile of the hunters and traders involved in the trade, patronage of their wares, the hunting methods used, and their own internal regulatory mechanisms for hunting and trade. In all, 31 respondents answered the questionnaires. Secondary data on wildlife exports were obtained from the Wildlife Division (Forestry Commission).

### Results and discussions

All 31 respondents from the four locations were males, reflecting the fact that trading and hunting of wildlife are male-dominated occupation. All the respondents claimed to undertake hunting and trading on part-time basis, practising alternative jobs as carpenters, mechanics, farmers and drivers. Ntiama-Baidu (1997) noted that there are very few people in Africa whose occupation is solely hunting. Most hunters worked full-time in other jobs like farming and artisanship, and only hunted on part-time basis. Asibey (1996) also reported that many farmers indulged in the bushmeat trade on part-time basis.

Majority of the traders (77%) were between 16 and 30 years old, while 56 per cent of the hunters were aged 40 years and above. Day-hunting was practised by 67 per cent of hunters, 56 per cent of whom used traps, and 33 per cent used guns and cutlasses. The remaining 11 per cent undertook group-hunting which involved chasing and running down the animals. The traps used were mainly metal killer traps which exposed the animals

to severe cruelty, as evidenced by the sight of captured animals with ruptured eyeballs, fractured limbs and blood dripping from parts of their bodies.

About 56 per cent of captured animals ended up in the hands of traders, while the remaining 44 per cent went to chop bar (local restaurant) operators. About 78 per cent of the hunters stated that they recorded more catches during the dry season than during the wet season, with duikers (*Cephalophis* sp.) and grasscutters (*Thryonomys swinderianus*) being the most expensive because of the very high demand for their meat. Seventy-seven per cent of the hunters reported drastic decreases in animal capture rates in recent times, with 57 per cent attributing this mainly to deforestation by illegal logging. Shifting the blame for decreased capture rates to illegal logging suggests that the hunters were not aware of the threats their own actions pose to biodiversity conservation efforts. Even though the majority (67%) of the hunters knew of the legal requirements for hunting, only 35 per cent of them had hunting licenses, suggesting that education may not be the problem but rather tax law enforcement and inadequate preventive measures.

About 76 per cent of the wildlife traders found the business lucrative, and the same percentage were aware of the laws governing the sale of wildlife in Ghana. However, only 52 per cent of them believed that the business was sustainable. Also, 48 per cent knew exactly what the laws were, and the fact that the hunting of wildlife in Ghana requires a license issued by the Wildlife Division of the Forestry Commission. Not surprisingly, therefore, only 24 per cent of the traders had trading licenses, suggesting also that the existing wildlife laws are not being rigidly enforced. There appeared to be no arrests or reprimands for breaching the law on open and close seasons for hunting, as all kinds of live animals or carcasses were on display along the highways of Ghana all-year-round. At Kibi, Ankaase and Anyinam in the Eastern Region, the hunters mentioned the

Atewa Range Forest Reserve (ARFR) as their major source of supply of the wild animals. Since the ARFR is a globally significant biodiversity area, this situation does not augur well for biodiversity conservation in Ghana and the world at large.

Table 1 shows the price levels of the various live animals and carcasses displayed along the highways during the study period. The highest patronage was from highway travellers, mostly foreigners, who usually purchased live animals with the intention of exporting them when leaving the country. This required them to obtain permits and relevant receipts from the Wildlife Division as required by law. The number of permits issued could, therefore, represent the number of live animals exported at a particular time. The data are, however, underestimates, since they cover only those animals exported legally. Demand for wild animals comes from the pet industry, zoological gardens and biomedical research programmes (Ntiamao-Baidu, 1997).

Table 2 shows the number of permits issued for live wild fauna exported to various destination between 2004 and 2005, while Fig. 1 shows percentages of export permits issued for different faunal categories in 2005 from Wildlife Division records. The records also indicated that all species traded locally were also exported. Generally, live animals were priced higher than carcasses, because of higher handling costs (Table 1), but some carcasses were also priced higher because of higher processing costs. The least number of permits were issued for live mammals and birds, which was attributed to the recent outbreaks of monkey pox, mad cow disease and bird flu. Reptiles and insects had the highest international demand. Ntiamao-Baidu (1997) reported that reptiles formed the bulk of the wildlife export trade between 1989 and 1994.

Generally, live wild animal exports generated significant amounts of revenue to the exporters, and the business is considered quite lucrative (Ntiamao-Baidu, 1997). Most of the profits go to

TABLE 1  
Prices of faunal species displayed along highways during the study

Species	Common name	Price (¢)		Conservation significance		
		Live	Carcass	IUCN	CITES	National
<i>Manis [Phataginus] tricuspis</i>	Pangolin	150,000	250,000			I
<i>Atherurus africanus</i>	Brush-tailed porcupine	100,000	150,000			II
<i>Neotragus pygmaeus</i>	Royal antelope	500,000	250,000	LR/nt		II
<i>Cephalophus maxwelli</i>	Maxwell's duiker	300,000	250,000	LR/nt		II
<i>Cercopithecus aethuops</i>	Green monkey	250,000	100,000		II	II
<i>Erythrocebus patas</i>	Patas monkey	500,000	-			II
<i>Thryonomys swinderianus</i>	Grasscutter	250,000*	300,000			
<i>Kynixys erosa</i>	Hinged tortoise	100,000	-	DD	II	II
<i>Francolinus achantensis</i>	Ahanta francolin	-	30,000			
<i>Poicephalus gulielmi</i>	Senegal green parrot	300,000	-			II
<i>Psittacus erithacus</i>	African grey parrot	500,000	-			II
<i>Achatina achatina</i>	Giant land snail	25 for 45,000				

#### Legend

##### Conservation Significance

- Global criteria

IUCN = International Union for the Conservation of Nature

CITES = Convention on International Trade in Endangered Species of Wild Flora and Fauna.

- National Criteria (Ghana Wildlife Conservation Regulations) Ghana's Wildlife Laws (Ghana Wildlife Conservation Regulations, 1971, and Ghana Wildlife Conservation (Amendment) Regulations, 1988; 1995).

TABLE 2  
Permits issued in Ghana for the export of live wild fauna

Continent	2004		2005	
	Number of permits	Percentage	Number of permits	Percentage
Europe	880	49	915	48.4
North America	718	40	720	38.1
Asia	156	9	228	12.1
Africa	32	2	27	1.4
Total	1786	100	1890	100

middlemen and international sales agents, rather than to the hunters. The low levels of capture and export permit fees charged by the Wildlife Division suggest that wildlife exporters under-declare

international market prices of the animals, on which the export permit fees are based. For example, patas monkeys (*Erythrocebus patas*) attract capture and export permit fees of GH¢1.00

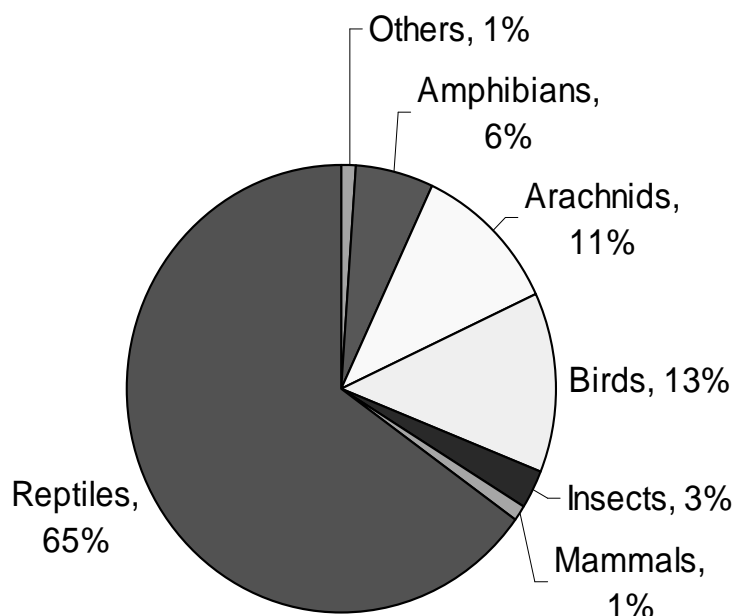


Fig 1. Export permit issued in Ghana to different categories for animals in 2005

(US\$ 1.1) and GH¢0.50 (US\$ 0.6), respectively, according to Wildlife Division records. The animals, however, reportedly cost US\$ 50 on the international market, while on the local market they cost GH¢50.00 (US\$ 55.6) (Table 1).

#### Conclusion and recommendations

The trading and hunting of wild animals in the selected communities are male-dominated activities, with majority of the traders and hunters operating illegally and with impunity. The level of awareness of the Ghana's wildlife laws among various stakeholders appeared to be high, but there is the need for intensive supervision and monitoring as well as enforcement of these laws. Trapping, as the most widely used hunting technique, was found to impose brutalities on the captured animals. The wildlife export trade poses serious threats to the Ghanaian economy and national wildlife heritage because of low export permit fees. It is recommended that (1) the manufacture and use of killer traps should be

regulated, along the lines of national guidelines to curb the proliferation of firearms in the country, (2) current capture and export permit fees need to be revised upwards to reflect current market trends to increase the country's foreign exchange earnings; ideally, export permit fees should be high enough to serve as a deterrent to undue over-exploitation of wildlife, (3) education and awareness campaigns on strict adherence to open and closed hunting seasons, as well as general observance of national wildlife regulation, should be instituted

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