SURVEY OF THE WILDLIFE RESOURCE IN THE BIA RIVER AREA STEWN DISTRICT, GHANA.

by:Bob Jamies n
Assistant Game Warden
Wildlife Resource Survey Unit
General Wildl. Cons. Services
DEP'T OF GAME & WILDLIFE
BOX 8, DAMONGO, N.R.
GHANA.

### ABSTRACT

To initiate management of the wildlife resource in the Western Region, a preliminary survey was carried out in the Bia River area in early 1971. The major concerns of the study were the status of rare species, principally the Pygmy Hippopotamus (Cheeropsis Liberiensis), the status of the important bushmeat species, the importance of bushmeat as a source of protein in the area, and the problem of farm raiding by elephants. They study area covered 1,120 square miles of semi-deciduous Rain Forest, with a rich fauna of 35 species of larger mammals. Five separate studies were carried out, using walking transects to collect information on wildlife and land use. Interviewing the local people also provided some valueable information, as did discussions with other Government Departments.

No evidence was found of the Pygny Hippo, but other rare species, i.e. Red Colobus, Olive Colobus, Diana Monkey and Chimpanzee were found. These species occur in low numbers and give some cause for concern. The species important in the bushmeat trade were found in the greatest numbers in the Bia-Tawya area. The two other major study areas supported wildlife numbers which were only 3% and 13% of those in Bia-Tawya. Ungulates, the most important bushmeat species, were only 4% and 7% respectfully; indicating that overhunting is seriously reducing wildlife populations in most areas. Other factors, especially other land uses, also effect wildlife and are discussed.

Elephants occur in the southern portion of the area and are a major problem due to their habit of raiding farms. A high concentration was found in Bia Trib. South F.R. near Adjuafua. Elephants also occur in the Sukusuku and Bia-Tawya areas, though in lower numbers.

Those in Sukusuku reportedly raid farms in the Niable area in Ivory Coast and extensive raiding occurs in the eastern portion of the Bia-Tawya. The cost of elephant damage was estimated at 15,000.00 to 20,000.00 Ng per amum.

Land use in the area, as it relates to wildlife problems, is also discussed, Bushmeat production is discussed at a form of land use. Alternatives for dealing with the elephant problem are suggested. Opportunities for blending compatible land uses and means of dealing with incompatible land uses are discussed, as they relate to wildlife problems.

It is recommended that the Krokosua Hills should be given strict protection in the form of status as a National Park, in order to protect the rare species and develop the tourist potential of the area. It is further suggested that the presently undeveloped south portion of the study area be given status as a Game Production Area in order to control bushmeat production and put it on a sustained yield basis. Such an area would also provide long term habitat protection and control hunting so that the survival of rare species would be assured. Since the forest in the Krokosua Hills is non-economic, and since forestry and bushmeat production are compatible in the southern area, these suggestions are generally compatible with established land uses in the area and therefore provide an exceptional opportunity for establishing intelligent management of the wildlife resource.

### TABLE OF CONTENTS

	Page				
ABSTRACT	i				
TABLE OF CONTENTS					
LIST OF TABLES AND FIGURES					
STAFF AND ACKNOWLEDGEMENTS					
DISTRIBUTION					
INTRODUCTION - by E.O.A. Asibey	νi				
METHODS					
BASE DATA	2				
RESULTS	4				
PART I - THE WILDLIFE RESOURCE					
DISCUSSION OF EACH SPECIES	7				
STATUS OF RARE SPECIES	14				
effect of logging	21				
EFFECT OF FARMING	22				
THE ELEPHANT PROBLEM	24				
PART II - LAND USE					
RESOURCES OF THE AREA	27				
LAND USES	30				
RESOLUTION OF CONFLICTS BETWEEN LAND USES	41				
PART III - RECOMMENDATIONS	-				
KROKOSUA HILLS	48				
GAME POPULATION RESERVE	52 55				
CONCLUSIONS					
LITERATURE CITED					
APPINDICES					

## L

- A The Status of the Pygmy Hippopotamus (Choeropsis Liberiensis in the Western Region, Ghana.
- B The botanical uniqueness of the Nsesereso meadows in the Krokosua Hills. By: J.B. Hall, Dept. of Botany, Legon.

# (iii)

		LIST OF TABLES	Page
Table	1.	Species list for the High Forest in Ghana	6
11	2.	Species composition of animals observed in three	
		study areas.	17
u	3.	Number of observations made and total number	
		of animals observed per 100 miles of transect.	18
tt	4.	Analysis of observations and number of animals	
		observed per 100 miles of transect by sub-groups	
		of primates, ungulates and "other" species.	18
11	5•	Animals observed per hour of night transect	
		and number observed per visit to hunting camps.	20
u	6.	Species composition of animals observed on night	
	2070070	transects.	20
12	7.	The effect of habitat destruction on species	
		diversity.	23
12	8.	Stockings of all species per Acre.	
,		(From Monney 1958).	29
11	9.	Prices of Bushmeat	36
tt		The value of bushmeat observed in hunting camps.	40
	10.	The value of bushmeat observed in hardens our	
		LIST OF FIGURES	
Figur	e 1.	Study Areas.	3
11		Distribution of Elephant	<b>2</b> 6
11	3.	Farming Areas	31
u		Logging Areas	33
n		Hunting Pressure	38
Ħ	-	Elephant Barrier. (From Woodley, 1965.)	45
11		Krokosua Hills -proposed National Park	
11		Proposed Game Production Area	

### STAFF

PROJECT SUPERVISOR - E.O.A. ASIBEY, C.G. & W.O.

TEAM LEADER - BOB JAMIESON, ASST. GAME WARDEN

SUPPORTING STAFF - B.Y. OFORI-FRIMPONG, SNR. GAME RANGER

- A. NUHU - GAME RANGER

- S. AZIKA - GAME RANGER

- YAW MENSAH - GAME RANGER

- G. OPOKU - GAME RANGER

- K. ANTI - GAME RANGER

- L. KANTON - SNR. GAME SCOUT

- B. VALGA - GAME SCOUT

- S. VOG - LABOURER

- OSEI KWAME - LABOURIR (hired locally)

- KWASI DUKU - "

### ACKNOWLEDGEMENTS

I would like to acknowledge: The help of:

The Omenhene of Sefwi; Assistant Conservation of Forests, Sefwi Wiawso, Osei Kwame - retired Forest Guard, Asempaneye, Somia and Hamish Jefferys, Forest Manager, G.W.A.

and all the residents of the area who aided us during this project.

### Distribution

Chief Game & Wildlife Officer - Accra	-	6
Game Warden - Damongo G.W.C.S.	-	6
Ministry of Lands & Mineral Resources	-	2
M inistry of Finance	-	2
Regional Administrative Office, Western	-	2
District Administrative Office, S/Wiawso	-	1
Officer in-charge, G. W. Asempaneye	-	1
Mr. E.O.A. Asibey	-	2
Mr. Bob Jamieson	-	2
Mr. Ofori-Frimpong	~	1
Mr. A.Y. Nuhu	-	1
Mr. S.A. Azika	-	1
Mr. G.K. Opoku	-	1
Mr. Y. Honsah	-	1
Mr. L. Kanton	***	1

### INTRODUCTION

Wildlife in Ghana is a resource of major importance. Since ancient times it has been an important source of protein. However, with the development of the country, problems concerning wildlife have intensified to a point where management to conserve the resource is necessary.

This study is the beginning of an inventory of the wildlife resource and the najor wildlife problems of the country. It is the first assignment of a young unit of the Department of Game and Wildlife: called The Wildlife Resources Survey Unit. Having developed and agreed on the basic technique for the general faunal survey for Ghana, based on work in Mole National Park (then a Game Reserve), this work was begun in the Western Region of Ghana with special emphasis on the basin of the Bia river. This area was chosen as being of primary importance due to the:-

(i) Interest in endangered species of the high forest area, especially in the Pygny Hippopotanus, (Cheeropsis liberiensis) shown by the Fauna Preservation Society of Britain since 1960.

In 1967, the society, besides supporting the training of Rangers in Tanzania, provided tents and camp beds which I considered to be the basic requirements for a survey to find out whether any Pygny Hippopotamus still exists in the Bia basin. With the return of the trained rangers and the equipment still kept for the operation, it was essential to carry out the exercise.

(ii) Since 1963, it had been found that a high forest Game Reserve to be developed into a National Park, was necessary for Ghana, to contain Chimpanzees (Pan troglodytes) which are getting rare, as well as nonkeys like Green Colobus (endangered) Black Colobus, Red Colobus and Diana Monkey. An area in which a population of elephants could be preserved was also of importance.

To the north of the Bia basin farming activities, coupled with timber operations, had created serious elephant control problems. Hunters camped in the Forest Reserves poached the elephants and drove then out into the surrounding farmland. There they soon acquired a taste for farm produce. In 1963, the chief of Goaso District refused to believe that elephants would turn also to feeding on cocca. They assured me that they have lived with the elephants so far without trouble and could not believe that this would change.

Agricultural produce are now being damaged and of late the elephants have taken to eating cocca pods. Farming is being done right up to the boundary lines of the forest reserves, 50.2 4 remaining pockets of forest now seen too small to contain the elephant.

It is considered necessary to set aside a large tract of the forest as reserve to protect the elephants while the Department does heavy control shooting elsewhere in the area. Besides preserving a tropical rain forest which will be of ecological importance for the present and future generations, the area to be reserved could also contain a viable elephant population. This is necessary to avoid the possibility that as more and more land is brought under cultivation, and with intensified lumbering in the small remaining forest reserves, that the Department will be compelled to eradicate the animals; or their habitat will be so reduced that they will die out or leave the area for lack of suitable habitat.

(iii) The economic importance of the rain forest has so far been neasured in terms of timber production and agricultural produce. There is however, local knowledge of the economic importance of fauna as a source of food and income though this is not acknowledged at the national level. Since fauna is not viewed as property of individuals to be managed carefully in its exploitation, but as communal or collective property, to be exploited while the going is good, it is necessary for government to ensure that this resource is properly managed. Given such a collective property vested in the Central Government, it is the responsibility of the Department of Game and Wildlife to set cash value on the wildlife of the area and thereby establish wildlife utilization as another form of land use in the rain forest; "cash value" since the present pattern of land use in the area is based on cash economy.

Consequently it was considered necessary to ensure that the faunal survey necessitated by problems (i), (ii) and (iii) above be expanded to cover land use and economic factors upon which a realistic decision can be made by the Government. Experience had shown that the fauna of the area were heavily used as a protein source and until just about a decade ago the area between River Bia and the Ivory Coast was largely a hunting ground with tapping of rubber, but little agricultural activity. The sale of bushneat and nenkey skins was a major source of income in the area at that time. I still have a black colobus nenkey skin given to me by my father who once traded in the skins from that area.

In view of all those the survey team under the leadership of Mr. Bob Jamieson was assigned the duty of:-

- (i) establishing whether or not the Pygmy Hippopotamus still occured in the Bia basin;
- (ii) investigating the present status of all major fauna of the basin;
- (iii) investigating the major factors affecting wildlife (wild animals and their habitat);
- (iv) assessing the economic importance of bushmeat in the area;
- (v) investigating the land use in the area in relation to its effects on wildlife;
- (vi) making proposals concerning wildlife managenent in the area.

It was and it is still my belief that in this way one can collect both qualitative and quantitative information upon which to base proposals to the Central Government. Such information gives us greater confidence in recommended lines of action.

I trust the team has done justice to its terms of reference as a pioneering project of this kind which has also offered opportunities for the training of all concerned.

E.O.A. Asibey Chief Game & Wildlife Officer.

Samole 13/3/72