



Black Bucks

(Safe or in Danger at Black Buck Sanctuary Chand Khamaria, Tehsil Meja, Uttar Pradesh, India)

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Abstract- This study has been undertaken to investigate the Black Bucks status at Chand Khamaria Black buck Sanctuary, Meja, Uttar Pradesh. If compared to the past, the population of this Antelope is quite good but their movement away from sanctuary and confliction with human put them in a danger stage. So, this paper includes some of those problems that cause this and their solutions.

Keywords- Black bucks, Antilope, Bovidae, Habitat, Conservation, Pray, Predator, Sanctuary.

1. Introduction-

Black Bucks (*Antilope cervicapra*) is also known as Indian antelope. Its primary habitat includes the grassland in which a permanent source of water is present. They came from the family Bovidae which include ruminant mammals along with giraffes, deer, cattle, sheep and goat. The name cervicapra is composed of the Latin words *cervus*(deer) and *capra*(she-goat). There are generally 3 types of classes present in this animal group - Male, Female and Bachelor herds. The male show 2 type of coloration- the upper parts and sides of legs are dark brown to black while the underparts and inside parts of legs are white. Females are generally yellowish in colour. The males have 35-75cm long ringed horns which are ringed at the base, twisted spiral with up to 4 turns.



black bucks at chand khamaria sanctuary, prayagraj

Males grow darker as the breeding season approaches. The blackbucks mate all year round while the peak of rutting season is March-April and August-October. After a gestation period of 6 months, the female gives birth to a single baby. The female shows her receptivity by waving her tail and thumping the hindlegs on the ground. Females become sexually mature at the age of eight months, but mate no earlier than two years. One male mate with more than one female. During the rut, the male establishes its own territory, aggressively defending it from other males of the area. Rutting males give out loud grunts and fight each other, using their horns. The Black Bucks have a life span of 10-15years. The blackbuck is a species of antelope with a slender and elegant body. The blackbucks have pointed and delicate hooves. Black Bucks lack a strong sense of smell or hearing but they have a good eyesight, which helps them to detect any kind of danger and react on time. The blackbuck shows variation in its diploid chromosome number. Males have 31-33, while females have 30-32. Males have an XY1Y2 sex chromosome. The total numbers of teeth in blackbuck were only thirty-two. $\{2^*(I_{0/3}, C_{0/1}, P_{3/3}, M_{3/3})\}$; similar to the Sheep, Ox, Buffalo, Chitals etc. Both melanism and albinism have been observed in wild blackbuck.

2. Area where I Study Black bucks-

The Black Buck Sanctuary [(25°02'46.00"N) (81°54'15.18"E)] is roughly 90KM from the Prayagraj city, which is flanked by Chand Khamaria and Mahuli villages. This is the Trans-Yamuna portion of the Prayagraj district and the first Blackbuck conservation reserve of Uttar Pradesh state. The protected area is supposed to be have an area of 29 Hectare with 300-500 or more number of Blackbucks. The sanctuary is surrounded by the agricultural field. The sanctuary is fenced by the stone walls which prevents the entry of animals and humans to the sanctuary.

The sanctuary provides water to the Black buck via water reservoirs in which the water is supplied by the Submersible Pump. A natural water source is also present in the sanctuary and a man-made water cannel is also present just behind the sanctuary. The sanctuary has a great variety of Flora which provides a better habitat to this animal. This sanctuary is also the home of Nilgai (*Boselaphus tragocamelus*) which is the largest Asian antelope. A great variety of birds are also there, where anyone can spot Black Drongo (*Dicrurus macrocercus*), Jungle babbler (*Argya striata*), Indian heron (*Ardeola grayii*), Cattle egret (*Bubulcus ibis*), The Indian Roller (*Coracias benghalensis*) easily.

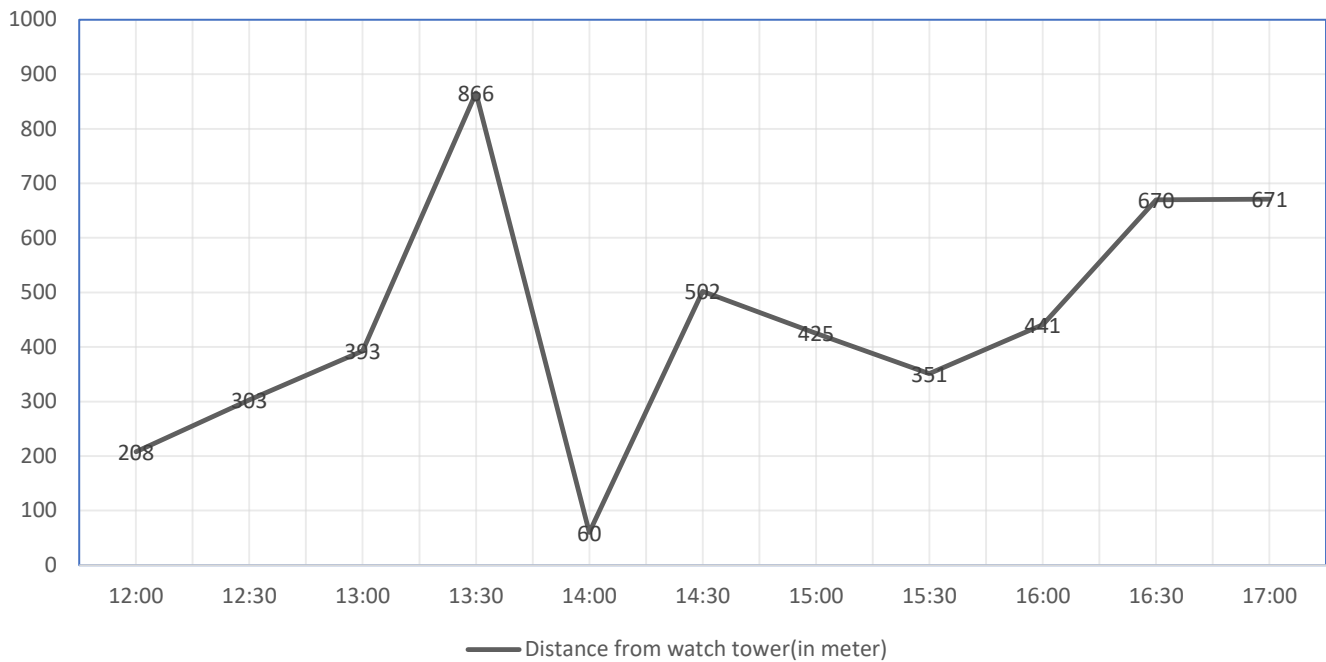
3. Black Buck Movement-

As being a herbivores animal, the Black buck needs to have a proper diet in the form of grasses and leaves of the tree. A fresh vegetation would be a great meal for the animal. As the sanctuary is surrounded by the agricultural fields, the Black bucks were often seen in the field. According to the local people, Black bucks spend there most of the time outside the sanctuary. A natural water pond is present about 1KM from the sanctuary along with the agricultural field and maximum number of Black bucks are seen there regularly which increase the chances of confliction of Black bucks with the humans.

As the villagers are still unaware about the importance of wildlife and the Wildlife Protection act 1972, it become necessary to decrease the chance of human and Black buck confliction. According to the local community, they face a great loss in the form of crop damage by Black buck and Nilgai and both of the animals move with their group. Sometime the villagers use Fire Crackers to take the animals out from there field and while most of the time they run behind them with the stick and stones. If there is a protected area for the safety of the Black bucks so why the human and Black buck confliction occurs; which is the major problem.

To find the solution of this problem, the movement of a group (3mature male+1bechlor) is observed and their position and distance from watch tower is measured in the interval of every 30minutes and what results came out gave the cause and the solution of this problem.

DISTANCE FROM WATCH TOWER (IN METER)



The group was recorded only 3 time from 13:00 to 14:00; inside the sanctuary and in rest of the time of observation the Blackbucks were out of the sanctuary. So, the causes of their movement away from the sanctuary are-

3.1 Broken Fence- As the sanctuary is covered up by the stone fencing so it is easy to break the fence using some strong thing. Now the broken fence allows villagers to enter the sanctuary along with their cattle which cause the depletion in the amount of Flora available for the Blackbucks. As the result, Black bucks cross the fence and reach the agricultural field in search of fresh vegetation and the human and Black buck confliction occur.

3.2 Construction work near the sanctuary- A problem that is there but not seen by anyone is construction work just near the sanctuary. Local people start making the houses near the sanctuary which cause a great disturbance to Black buck in their Habitat. As we know this Antelope has a shy nature and makes a distance from the human. This kind of construction work increases the chance of confliction with humans and cause Black buck movement away from the sanctuary.



construction work just in front of main gate of sanctuary

3.3 Lack of fresh vegetation- The main problem that rise the human and Black buck confliction is lack of fresh vegetation inside the sanctuary which is less due to the presence excessive Black bucks and regular movement of the cattle inside the sanctuary. Black buck also faces the competition for the fresh vegetation from another Antelope (Nilgai). As we already know the March to April are the mating season of Black bucks and the month January and February are important to male for making their own territory. Now if the Black bucks move out to the sanctuary for fresh vegetation so it is obvious that the mating place would be out of the sanctuary and due to that more chance with human confliction occur.

3.4 Improper water facility- As in the sanctuary the water facility is provided by the department in the form of making the reservoirs. All the water reservoirs have cemented interior and have enough space which can full fill the water need of huge amount animals. But the problem that arise the conflictions with human is unavailability of the water in these reservoirs. Most of the reservoirs lack water and 1-2 have water which is not drinkable by any animal. Just behind the sanctuary, the water cannel is present which provides the fresh water to this Antelope. As to fulfill the need of fresh water, the Black bucks move out of the sanctuary where they get huge amount of water as well as food to eat. And this movement also create the chance of human and Black buck confliction.

3.5 Absence of predator- As we already know, Black bucks are the Herbivorous animal which only feed on grass, leaves, vegetables and fruits. According to the record 300-500 Black bucks are present in the sanctuary. This huge population only depends on the Autotrophs of the sanctuary and presence of this kind of population cause depletion in the Flora count. As the time travels the population of Black bucks in this sanctuary increases according to the local community, and this increasing population puts a great pressure on the sanctuary. The locality of sanctuary lacks a proper predator which may be a wolf (*Canis lupus*) which cause their population to be increase in bulk and cause the deficiency of fresh vegetation in the sanctuary which leads to the movement of Black bucks out of the sanctuary where a main danger is waiting for the; Dogs. Sometimes dogs enter inside the sanctuary and cause Black bucks' movement out of the sanctuary, which leads the chances of confliction with human.

3.6 Ecotourism- Ecotourism is an important key to understand any Ecosystem, Biodiversity, Habitat and their conservation. It provides the information which can help to understand “What is Nature and what we are doing with it”? But in this case, this Ecotourism is one of those factors which leads the movement of Black bucks out of the sanctuary. More than 70% people came here only for fun, party and celebration and leave a huge amount of plastic, polythene behind them. If you visit the sanctuary, you will easily find the bottles of Alcoholic drinks inside the sanctuary. These kind of scene hurts anyone who is trying to save the nature but fails to change the mentality of people. Sometime loud sounds are also used for fun but it causes the disturbance to the Black bucks in their Habitat, which leads to the movement of Black bucks out of the sanctuary and increase the chances of confliction with humans as this Antelope found peace in their agricultural field.

4. What can we do-

One line that hits my mind every time when I visit these kinds of places is “We are only the part of Nature not the owner of the Nature”. The main problem that causes the movement of Black bucks out of the sanctuary to the fields of local villagers is those who move through the sanctuary with their cattle, cut down the woods from the sanctuary for their domestic use and use loud vehicles near the sanctuary. The department couldn't save this Habitat without the support of local community. So, what we can do is to understand the importance of this Antelope and educate the local community about the conservation. We have to be mature and disallow those actions which make the sanctuary unsuitable for the Black bucks. The rules should be strictly followed by everyone and quick actions should be taken against those who cause the depletion in the habitat in any manner.

Conservation of this habitat can be done in 2 ways; -By the government and -By the common people who visit there.

- 4.1By Government-**
1. Provide proper water supply.
 2. Check vegetation regularly inside the sanctuary.
 3. Allow people to visit sanctuary after proper checking.
 4. Provide good fencing around the sanctuary so that Cattles, Dogs couldn't enter the sanctuary.
 5. Avoid construction work near the sanctuary.

- By the Common People-**
1. Visit sanctuary but keep all the rules in mind.
 2. Don't use heavy sound inside or near the sanctuary.
 3. Use dustbin not the sanctuary to throw your garbage.
 4. Don't do such activities which disturbs the Black bucks.
 5. Construction work far from the sanctuary.

5. Summary-

As we know the Black bucks are included in the endangered species list in India (included in Schedule 1 of Indian Wildlife Act, 1972). So, it became necessary to conserve this beautiful Antelope and this could only happen if we start to conserve their Habitat, provide them the favorable conditions to survive. We have to understand our duty and must educate the local community around their Habitat. As in this sanctuary at Chand Khamaria, the population of Black bucks are gradually increasing as compared to the last few years, which is a good sign in their conservation program. But the problem in this case is their movement away from the sanctuary and regular confliction with the humans which arise a question in mind that "Are Black bucks are safe in this sanctuary or facing any kind of Danger?"

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