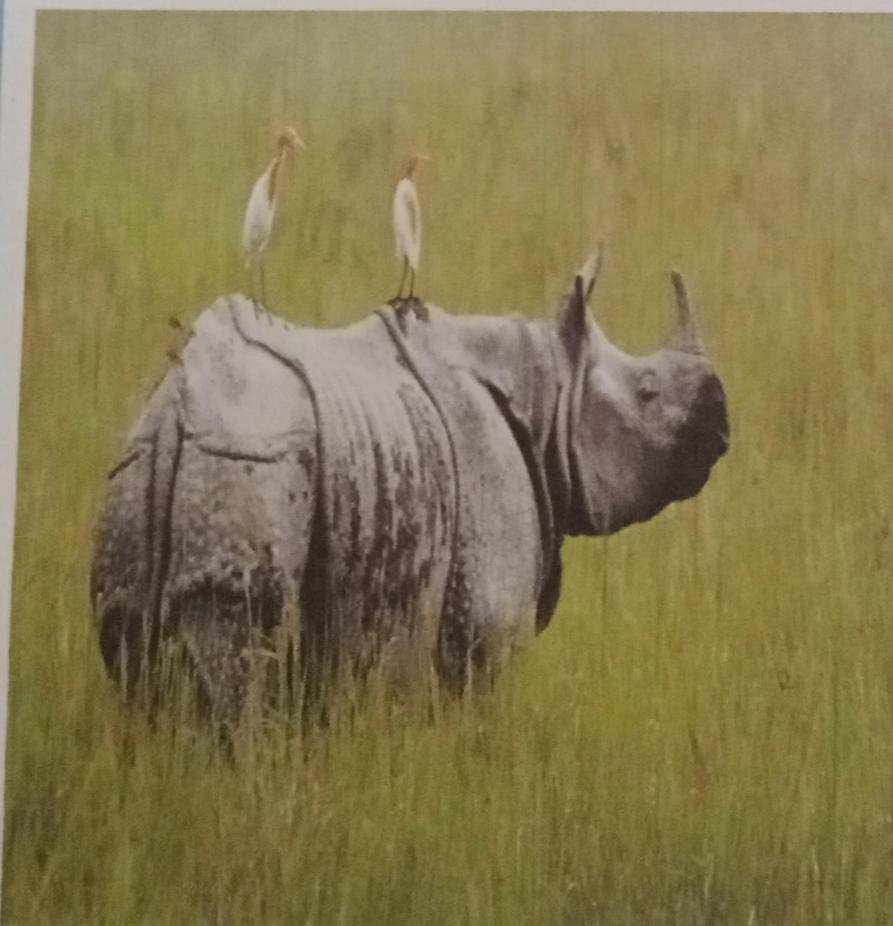


# 2021-2022 FIELD STUDY REPORT



## KAZIRONGA NATIONAL PARK



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SUBMITTED BY -

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## ACKNOWLEDGMENT

I would like to show my gratitude and give thanks to Dr. Litool Baruah, the principal of N.N. Saikia college , Titabar who has given the opportunity to go on our educational to kaziranga National Park. Also my heartfelt thanks to the teachers of our Zoology Department ,Dr. Manashi Bortamuly(H.O.D), Mrs Mitali Chetia,Dr Jafrin Farha Hussian and Mrs munmi puzari for providing us moral support in carrying out our field study.

Special thanks to Dr Manashi Bortamuly for providing us proper guidance and being with us throughout our field trip. At last but not the least , heartfelt thanks to my parents who gave the financial support for the trip.

of  
Govinda Krishna Goswami  
B.Sc 5<sup>th</sup> semester  
Dept of Zoology

# CERTIFICATE

This is to certify that a field study to the Kaziranga National Park was carried out by Sneha Jyoti.....  
.....of B.Sc 5<sup>th</sup> semester of  
Zoology(core) of Nandanath Saikia College, Titabar under our supervision and guidance . We wish her all the success for her endeavour.

*Jafra Farha Hussain*  
*27.01.22*  
Dr. Jafrin Farha Hussain Dr. Manashi Bortamuly  
Assistant professor (H.O.D)  
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## INTRODUCTION

"What I hear

I forget

What I see

I remember

What I do

I know"

- CONFUCIUS

Field trip has an immense value in any education system. An educational study in a practical field is known as field study. The things we are read in our text book is not sufficient to know the clear idea about the habit, habitat and behavior of animals. Field study is included in our syllabus observing plants and animals in their natural habitat gives an unique and euphoric experience. Moreover as we take part in the field study as a group, it makes a strong bonding and trust on each other among our classmates.

We have selected Kaziranga National Park for our field study site as it is the nearest biodiversity rich national park not only in Assam but also in India. We were guided by H.O.D. of our department "Dr. Manashi Bortamuly" madam.

## **AIM AND OBJECTIVE**

1. To enjoy the aesthetic beauty of Kaziranga National Park.
2. To study the different fauna of K.N.P in their natural habitat.
3. To get a idea of human animal interaction in K.N.P.
4. To know the effect and impact of tourism on K.N.P and it's surroundings.
5. To study the floral distribution in K.N.P.



## **ABOUT THE FIELD TRIP**

For the above mention field study ,We the students of 5<sup>th</sup> semester ,Zoology Dept of NN Saikia started our journey on 2/1/2022 at morning 9.40 am of our college campus by bus.Through National Highway 37 our journey was continuing on the way to our destiny we crossed Assam Agriculture University ,NEIST,Dergaon ,Rangamati,Badulipara,Komraon,Dhansiri river , Numoligarh ,Bihora Tea estate and many historical places.At last we reached Bokakhat at about 12.30pm .

In Bokakhat at the guest house of JDSC College we kept our luggage and bags in our room where we spent the night.



## HISTORY OF KAZIRANGA NATIONAL PARK

The Kaziranga National Park was proposed as reserve forest in 1905.

In 1908 it was fully established as a reserve forest with aim of conserving the dwindling population of the rhinos. In 1916 it was upgraded to a Game sanctuary. In 1937 the sanctuary was open for visitors. In 1950 it was declared as Kaziranga Wildlife Sanctuary. In 1974 it was fully established as the Kaziranga National Park. In 1985 it was awarded the prestigious tag of world heritage site by UNESCO. In 2007 a part of it was declared as tiger reserve.

## ABOUT THE STUDY AREA:

### Location :-

Kaziranga National Park is fairly located in the Golaghat and Nagaon regions of Assam, India. It is also placed beside the Brahmaputra River on the north and Karbi Anglong mounts on the south.

### Boundary:

The southern border of the park is roughly defined by the Mora Dipholu River. Further south are hills of Barail and Mkir. The Brahmaputra River constitutes dynamically changing Northern boundary of the park.

### Topography:

Kaziranga national park is 40 km. long and 13 km wide an area of  $378.22 \text{ km}^2$ , having lost around  $51.14 \text{ km}^2$  to erosion by the Brahmaputra. A total addition of the  $429 \text{ km}^2$  along the present boundary of the park has

been made notified with separate national park status to provide extended habitat for increasing population of wildlife or as a corridor for safe movement of animals.

The rivers present in KNP is Dipholu, Mora-Dipholu and Mora-Dhansiri. It is composed of riverine flood formed lakes(beels) and elevated flats(chaporries) where animals shelter during flood.

## METHODOLOGY

We simply observed the animals and plants usually with our naked eyes and sometimes with the binoculars. We made a record of the animals we observed and took photographs of the animals under observation wherever possible.

The observations were made from the gypsy and from the designated watch towers we could visit during the Jeep Safari in Agartali range of the K.N.P. We also made the observations when mounted on the elephant during our elephant safari in Kohora range.

Camera used for photography:  
Canon EOS 1300D

## **Day 1(2/1/2022)**

We took jeeps from our guest house to Agaratali range (estern range )at about 1.40 pm .Entry gate of Estern range is 25 km away from the entrance of the kohora range. It is the largest range of the park .We travelled across the range for almost 2.30 hours by jeep. It is a flora and fauna riched range where many ecosystems and biodiversities are found .

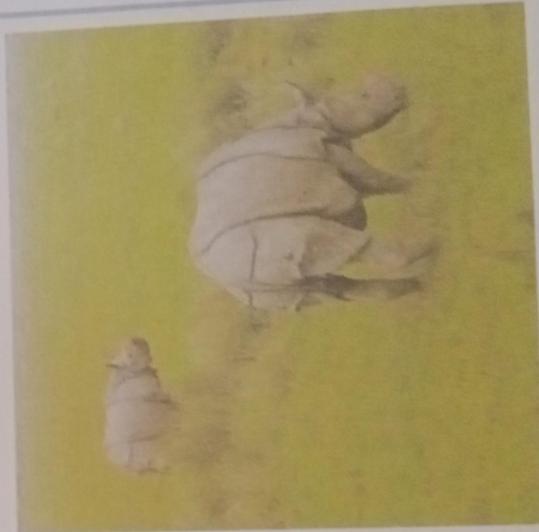
## **FLORA AND FAUNA OBSERVED**

### **FAUNA**

#### **One horned**

#### **Rhinoceros**

There are 2413 Rhinos found in Kaziranga National Park which have one horn.during our visit we had 20 rhino in K.N.P. They live on grasses.they were mostly seen riverine and tall grass land.In comprision to female , males are larger in size,The great one horned rhino is the major attraction of K.N.P.



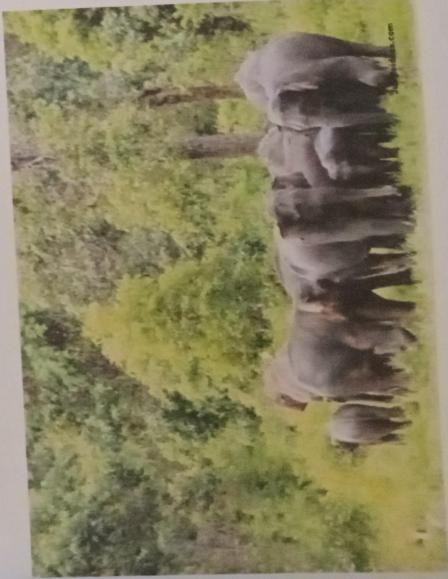
## SWAMP DEER

This deer has huge antlers. They are of dense brown colour and has matted neck. They leave on grasses. Many herds of swamp deer were seen in K.N.P during the visit. This animal is also as barasingha due to the special appearance of more than 12 points of horn like structure found in head region. The swamp deer species of K.N.P. is an endangered deer species. K.N.P. has around 1148 out of 5000 word wide population on these swamp deer.



## WILD ELEPHANT

Many wild elephants were seen by the river side of Kaziranga contain as many as 1206 elephants. (from the 2005 census). We show many heard of elephant there. The heard is led by a matriarch, which is the oldest female. They lives on grass, bark, roots and leaves 2 troops of elephant.



## WILD BUFFEALO

Water buffalo were also seen in the riverine and riverside of Brahmaputra. More than 14 buffalo were seen during Kaziranga visit. As per the last count in 430 sq. k.m Kaziranga put the number of wild buffaloes at around 1400.



Another animals like wild boar, squirrels were seen during the journey.

## BIRDS

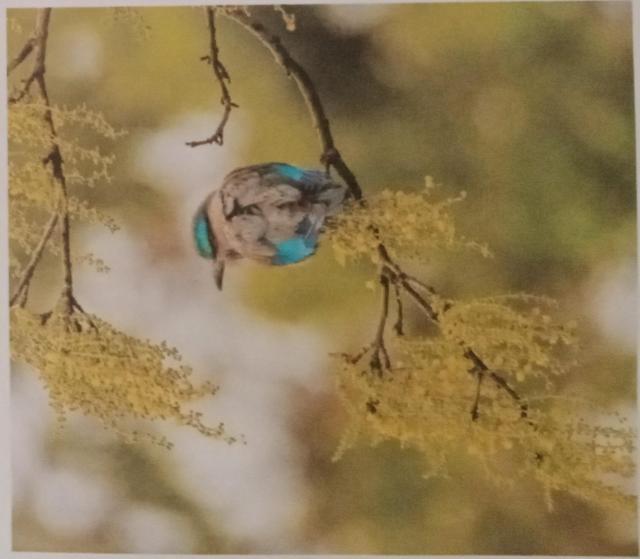
### Bar headed goose

Bold black and white head and neck pattern unlike other goose. Two black bars are present in the neck. There legs and bill is yellow . During the visit many gaggle of geese were seen. It is known for the extreme altitudes it reaches when migrating across the Himalayas.



### Indian roller

It is a brownish and blue colour bird. The tail is sky blue and central feathers are dull green seen in the tall trees of mid forests.



## Darter

Black in colour, it is  
a water bird. Having  
long neck



## Hornbill

It has a long down  
curved yellow bill  
with black and white  
feathers. Seen in the  
high trees of the  
National Park.



### **GREY HEADED FISHING EAGLE**

It is a fish eating bird of prey. It is a large sooky raptor with adults having dark brown upper body grey head and lighter underbelly and white legs wings aren't very long and wingtips reach less than halfway down tail. 7 grey head fish eagle were seen in medium height trees near the beels of K.N.P.



### **KINGFISHER**

Kingfisher lived near beels and eat fish. They consume a wide range of prey usually caught by swooping down from a perch. They have large heads sharp pointed bills, short legs stubby tails. Almost 12 kingfisher were seen near the river and beels of K.N.P.



## EGRATE



White or buff plumage, develop fine plumes, long legs and pointed bills. Many egrate were seen beels and river.

## PARROT



Parrots with green features dwells in the tall trees of K.N.P. Many flocks of parrot were seen in the tall trees during the trip.

After 2 hours of jeep safari we returned to our guest room and stayed for the night. The dinner was served by the college canteen stuff.

#### FLAURA OF KAZIRANGA NATIONAL PARK:

The study of the flora was undertaken in 1986 and the different vegetation coverage in Kaziranga, which we have collected from secondary source, is classified as follows:-

41% of the total vegetation is covered with tall thickets of elephant tall grasses, 29% open jungle, 11% short grasses, 8% of the area is rivers and water bodies.

The flora of the park comprises of:-

1. Easter wet alluvial grasslands.
2. Eastern dillenia Swamp Forest.
3. Riparian fringing forest.
4. Assam alluvial plains semi-evergreen forest.

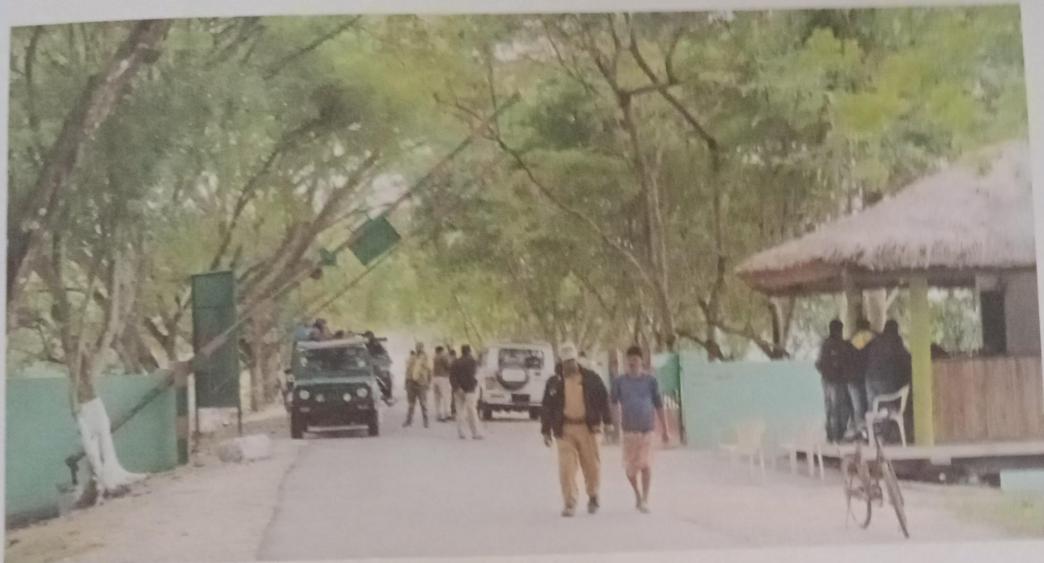
The diverse type found in Kaziranga support over 440 species of plants. Grasslands dominate the area covering two

third of it. Short grasses such as Cynodon dactylon, Chrysopogon articulatus and Andropogon species are common around shallow water bodies. Species such as Erianthus revanna, Saccharum elephas and Imparla cylindrica grow up to 5 meters. tall and cover large area of the site. A common species in marshy areas is Arundodonase with water loving such as Ikomia. Amongst trees, prominent colonizers include Ziziphus mauritiana and Bombax ceiba commonly seen scathe red across the grasslands.

The top of the park consist of various trees like Kumbhi, cotton tree, Indian goose berry, elephant apple.

The glory of KNP is its breathtaking array of flowers in the form of an abundant cover of water lilies, lotus and water hyacinth which enrich the beauty and add the rustic look to the ambiance of the park.

## DAY 2(3/1/2022)



At morning 6.30 am we started our journey to Kohora range or central range . At 7 am we started elephant safari for 50 minutes. During this time many animals and plants were seen .

One horned Rhino , one wild boar ,many heads of deer .Rhino dung flower various herbs and grasses were seen during the safari .

This safari ended at 7.50 am and we return to Kohora and visited various places. Firstly we went to see the Kohora residential tourist apartment and then we visited Kaziranga National Orchid and biodiversity Park .



The Kaziranga National orchid and Biodiversity Park is located at the distance of 2km from the central range of Kaziranga, Kohora chariali. This Park is sprawling, in the area of around 6 acres in the Durgapur village and is considered as the largest orchid park in the northeast belt of India. The park has multiplied the glory of the Kaziranga in many folds.

This park gives full certificate to North East India that it is a hub to very rare biodiversities found in India and should be protected and preserved. Apart from these park also boats of a medicinal plant garden for local fruits and flowers and a dedicated space for native species of fishes and dense forest area that have various native species of trees grown apart from its cultural centres.

We visited the park till afternoon and take our lunch in the park. After that we returned to college guest house and after some time we packed our luggages and returned to our beloved home.

## LIST OF ENDANGERED MAMMALS

- I. ROYAL BENGLE TIGER(*Pantheria tigers*)
- ii. LEOPARD(*panthera bardus fusca*)
- iii. FISHING CAT(*Felis virrina*)
- iv. HOG BADGER(*Ariolaxyer collaris*)
- v. CLAPPED LANGUR(*Presytis pileatus*)
- vi. EASTERN SWAMP DEER(*Cervus ranjitsinghi*)
- vii. ASIATIC WILD BUFFALO (*Bubolus bubalis*)
- viii. ASIAN ELEPHANT (*Elephas maximus*)
- ix. GREATER ONE HORNED RHINOCEROS (*Rhinoceros unicornis*)
- x. SLOTH BEAR(*Melursus ursinus*)

## **LIST OF PROTECTED BIRDS**

1. BLACK BAZAS (Aviceda leophotes)
2. JERDON'S BAZA(Aviceda jerdoni)
3. BENGAL FLORICAN( Houbaropsis bengalensis)
4. WHITE SORK(Ciconia ciconia)
5. GREAT HORNBILL( Buceros bicornis)
6. ORIENTAL PIED HORNBILL( Anthracoceros aobirostris)
7. CRESTED GOSHAWK(*Accipiter trivirgatus*)
8. SHIKRA (Accipiter badius)
9. BESRA(Accipiter virgatus)
10. OSPREY( Pandion haliaetus)

## **DISCUSSION**

### **A. Role of Fire and FLOOD in maintaining the habitat of KNP:**

Fire and flood in Kaziranga have and important role to play in maintaining of the National Park . Burning is done to encourage the grow of new grass . Animal concentrate in such burnt patches of ash .the flood water adds to fertility of the soil with fresh green grasses throughout the year .The National Park serves as a breeding ground of fish

High floods are however definitely injurious to the National Park . As large numbers of animals are lost during such high floods , They however don't occur every year . For such reasons fire and flood are considerable to the two essential agents for maintaining the present vegetation stage ,inside the national park .

## B. CONSERVATION PROBLEMS:

### 1. POACHING:

Poaching of wild animals, mainly one horned rhino is a major threat. A total of 676 rhinos have fallen prey to the poachers from 1965 to 2008.

### 2. HIGH FLOOD:

Flood almost on an annual basis defines the park. KNP being flood plain ecosystem, annual flooding is a regular phenomenon which helps in maintaining a variety of habitats suitable for many threatened species. Flood in Kaziranga is a boon as well as a curse.

### 3. EROSION:

Erosion is one of major factors playing a vital role on the future of the park. Every year large chunks of land from the northern boundary are washed away by the Brahmaputra River. The points of erosion go on changing according to the change of course of the river.

Sometimes the areas eroded earlier are restored by heavy slit depositions. The gravity of the situation can be judged from the fact that the estimated area of the park in 1998 by computation from a study based on multi date satellite has been calculated to be 40790 ha. only against the notified area of 42993 ha. in 1974

#### 4. SEDIMENTATION AND WEEDS:

Continuous sedimentation and invasion of Eichornia, Midkenia, Mimosa etc. In the existing water bodies and on the land have posed a big problem for the existence of the wet lands. Since the wet lands of the park are an integral part for survival of many important fauna such as Rhinos, wild Buffalo, Myriad birds species etc.

#### 5. HEAVY TRAFFIC.

On the national highway no 37 makes the movements of the animals to high grounds along hills unsafe during high floods.

#### 6. ILLEGAL FISHING:

The villagers from the fringe areas of the national park sometimes go for illegal fishing in the numerous beels of the park.

#### 7. LIVESTOCK GRAZING:

Live stock grazing particularly in patches of southern boundary.

## EFFECTS AND IMPECTS OF TOURISM on 'KNP'AND ITS SURROUNDINGS

Tourism plays a very important role in the economy of the region . It generates employment and income leading to community development.The Kaziranga National Park earns huge revenue due to tourist .Rural areas depended on the natural, social and culture resources and benefit from tourist.The stakeholders and hoteliers in KNP have reaped most of the benefits out of the tourist inflow In Kaziranga National Park.But the local artisans and farmers have failed to get any benefit out the tourist inflow.

The local artisans around Kaziranga National Park are known for this masterwork in carving wood in the form of one horned rhino ,crane, tiger elephant deer etc.Tourists are especially interested in handicrafts created by local crafts people rather than produced in factory.Learning a new culture is also an important motivation factor for tourists by mixing with local people and shopping for local arts and craft

# HUMAN ANIMAL INTERACTION IN KNP

Kziranga national park is divided by National Highway 37. Several animals were crossed the roads to go to the other side of the park . Sometimes elephants came out of their habitat for searching foot and goes to the nearest human territory .

Man animal conflicts have become a growing problem in Assam KNP past few years . Villagers surrounding Agoratoli in the eastern range of the park have been facing regular attacks by wild animals . Villagers are mostly dependent on agriculture for their livelihood . A part from destroying their farmlands , some animals like tigers also come these villages in search of food and attack their cattle in the process .

## CONCLUSION

- Though Kaziranga is nationally recognized park, there are some causes of habitat loss of the animals. Some of them are natural causes like flood, the animal threaten and escape from their original habitat. They come out to the open area for flood and habitation. This habitat loss may sometimes results animal death.

During flood various wastage carried by water and they were deposited in the ecotone area. This affects the biodiversity of the national park.

The government has to be more conscious and alert about the endangered species of the park which are going to be extinct in the near future.