



CERTIFICATE

This is to certify that Miss Bishakha Bora, student of B.Sc. 5th semester bearing roll no. 82 has taken part in the field study trip to Kaziranga National Park under guidance and supervision of the faculties of Department of Zoology, Bahona College and has also submitted a report for the same.

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DESCRIPTION ABOUT THE JOURNEY

A visit to Kaziranga National Park was made on 7th January, 2021 by the students of 5th semester of zoology department of Bahona College at about 6.30 am. Proper arrangements were made by our department to make the journey pleasant one. The visit was a one day visit; we reached Bokakhat at about 7.45 am. After being refreshed there, we resumed our journey and reached Kaziranga at about 9.30 am. First we visited Kaziranga Orchid Park situated in the Kohora range. The place is a huge site for different flora. From there we resumed our journey to our final destination, i.e., Kaziranga National Park. We reached there at about 11.40 am and after completing the official documentation, we went to have our lunch since the jeep safari time was from 1 pm. So after having our lunch we came back and divided into 6 groups. We took 7 jeep, each group consist of 6 members took each jeep. At about 1 pm, our visiting time started in the National Park. After completing the jeep safari we returned from the sanctuary at about 5 pm. The total safari time inside the park was almost two hours.

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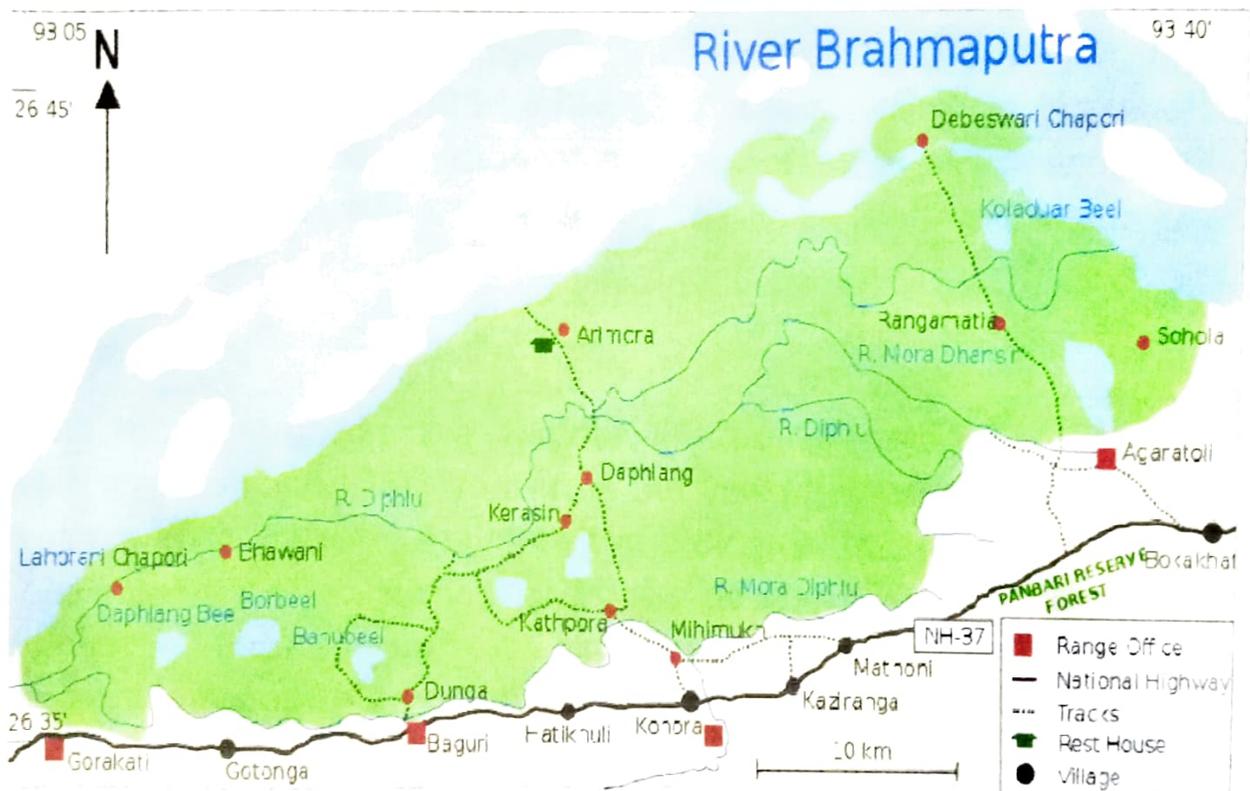
1. INTRODUCTION

Kaziranga National Park, which hosts two-thirds of the World's great one horned rhinoceros, is a world heritage site. It is solitary among the foremost national parks in the earth and also famous as the pleasure of the North East India. Situated in the intense geographical place, the park presents a massive range of natural beauty. Kaziranga National Park is located fairly in the Golaghat and Nagaon regions of Assam in India. It is the oldest park in Assam covering an area of 430 sq kms along the river Brahmaputra on the North and the Karbi Anglong hills on the South. Edged by fertile tea bushes, Kaziranga National Park offers a splendid scenic sight. The park is also recognized as an Important Bird Area making it not only an ideal wildlife sighting destination in India but a birdwatcher's paradise as well.

STUDY AREA

2.1 LOCATION

It is situated on the Southern bank of the Brahmaputra River at the foot of the Mikir-Karbi Anglong Hills about 8 km from Bokakhat and 220 km east of Guwahati, the Assam state capital. It is situated between latitude $26^{\circ}30' N$ and $26^{\circ}45' N$ and longitudes $93^{\circ}08' E$ and $93^{\circ}36' E$.



2.2 History

- 1908: Declared as a Reserve Forest.
- 1916: Declared as Game Sanctuary.
- 1938: Opened for visitors.
- 1950: Designated as Wildlife Sanctuary.
- 1974: Declaration as National Park.
- 1985: Inscribed as World Heritage Site by UNESCO-IUCN.

2.3 GEOGRAPHY & GEOLOGY

Located between the two districts of Assam – the Koliabar subdivision of Nagaon district and the Bokakhat subdivision of Golaghat district on the edge of the Eastern Himalaya biodiversity hotspots, Kaziranga National Park covers an area of about 378.22 sq. km in which 51.14 km² has been lost to erosion by the Brahmaputra.

Assam is in the easternmost projection of the Indian Plate according to the Plate Tectonics. It is believed that due to the force exerted by the north eastwardly movement of the Indian plate at the time of Himalayan origin, a huge fault was created between the Rajmahal hills and the Karbi Meghalaya plateau. Kaziranga National Park's landscape is the creation of natural forces of slit deposition and erosion that has been effected by the river Brahmaputra over hundreds of years.

2.4 CLIMATE

Due to its location in the middle of the Brahmaputra valley, Kaziranga gets around 250 cm of rain per year. It is often flooded by the river Brahmaputra to maintain the biological balance. 3 seasons are being experienced every year by the park – Summer, Monsoon and Winter. The summer is experienced approximately from February to May with temperature range from max. 37°C to min. 7°C. The hot and humid monsoon covers the sanctuary from June to September with rainfall of 2,220 mm. The winter extends from November to February with temperature range from max. 25°C to min. 5°C.

3. MATERIALS AND METHODS

This field study report is prepared by using observation method. The primary data were collected during jeep safari in the Kaziranga National Park. Some secondary data were also collected as it is not possible to perform survey of the whole sanctuary in a day.

For field observation of different animals in their natural habitat, few monocular and binocular were used; digital camera and mobile camera were also employed to record different habitat types and other data in the field. Some guidebooks were also used for identification of the animals.

4. OBSERVATION

4.1 VEGETATION PATTERN

The varied vegetation at the Kaziranga National Park creates the ideal habitat for a number of wild animals and birds and specially the one horned rhino.

Four types of vegetation are found in the sanctuary –

- Tropical wet evergreen forest
- Tropical deciduous forest
- Grasslands
- Swamp areas (beel)

The tropical deciduous forest vegetation are home to different animals of Kaziranga. The evergreen forest vegetation are home to a large variety of wildlife such as deer, wild boar and different species of water birds. The swampy areas inside the park, located near the River Brahmaputra are natural habitats for different species of reptiles and birds. The western area of the national park has grasslands. Tall grasses like sugarcane, elephant grass and spear grass are found in the western grassland zones.

4.2 FAUNAL DIVERSITY PATTERN

Being one of the famous world heritage sites, Kaziranga helps in protecting some of the globally threatened and near endangered species of animals and birds. Kaziranga, home to the world's largest remaining populations of Indian one horned Rhinos, Eastern Barasingha and wild water buffalo, Elephant and Tiger, also offers one of the most cosmopolitan outdoor activities called birding.

Following are the faunal diversity found in Kaziranga National Park—

4.2.1 MAMMALS

The Kaziranga National Park supports more than 35 species of mammals of which 15 belong to Schedule I of Wildlife Act 1972. It harbours the world's largest population of Indian Rhinoceros and many more species. Here is the list of mammals found in the sanctuary –

ENGLISH NAME	SCIENTIFIC NAME
INDIAN RHINOCEROS	<i>Rhinoceros unicornis</i>
ASIATIC WILD BUFFALO	<i>Bubulas bubalis</i>
ROYAL BENGAL TIGER	<i>Panthera tigris</i>
CAPPED LANGUR	<i>Presbytis pileatus</i>
HOOLOCK GIBBON	<i>Hylobates hoolock</i>
LEOPARD	<i>Panthera pardus</i>
INDIAN ELEPHANT	<i>Elephus maximus</i>
SLOTH BEAR	<i>Melursus ursinus</i>
GANGETIC DOLPHIN	<i>Platanista gangetica</i>
OTTER	<i>Lutra lutra</i>
WILD BOAR	<i>Sus scrofa</i>
GAUR	<i>Bos gaurus</i>
SAMBAR	<i>Cervus unicolor</i>
SWAMP DEER	<i>Cervus duvauceli</i>
HOG DEER	<i>Axis porcinus</i>
COMMON LANGUR	<i>Presbytis entellus</i>
INDIAN PORCUPINE	<i>Hystrix indica</i>
LARGE INDIAN CIVET	<i>Viverra zibetha</i>
SMALL INDIAN CIVET	<i>Viverricula indica</i>
COMMON MONGOOSE	<i>Herpestes edwardsi</i>
JACKAL	<i>Canis aureus</i>

4.2.2 BIRDS

Numerous water bodies constitute rich reservoir of food and thousands of migratory birds visit the park seasonally during winter from as far as Siberia. A total of 478 species has been recorded (M. Barua and P. Sharma, 1999) including 25 globally threatened species, and 21 near threatened species. The bird species found in the park are listed as follows –

ENGLISH NAME

Swamp Francolin
Lesser White fronted Goose
Ferruginous Pochard
Baer's Pochard
Blyth's Kingfisher
Pale capped Pigeon
Bengal Florican
Nordmann's Greenshank
Greater spotted Eagle
Imperial Eagle
Palla's Fish Eagle
Dalmatian Pelican
Spot billed Pelican
Greater Adjutant
Lesser Adjutant
Rufous vented Prinia
Bristled Grassbird
Mah Babbler
Jerdon's Babbler
Black breasted Parrotbill
White bellied Heron
Finn's Weaver
Black bellied Tern

SCIENTIFIC NAME

Francolinus gularis
Anser erythropus
Aythya nyroca
A. baeri
Alcedo Hercules
Columba punicea
Houbaropsis bengalensis
Tringa guttifer
Aquila clanga
A. heliaca
Haliaeetus leucoryphus
P. crispus
Pelecanus philippensis
Leptoptilos dubius
L. javanicus
Prinia burnesii
Chaetornis striatus
Pellorneum palustre
Chrysomma altirostre
Paradoxornis flavirostris
Ardea insignis
Placus megarhynchus
Sterna acuticauda

4.2.3 REPTILES

About 42 species of reptiles have been reported from the Kaziranga National Park. Two of the largest snakes in the world as well as the longest venomous snake in the world inhabit the park. Kaziranga is also home to the endangered gharial and about 15 species of turtles, including the endemic Assam roofed turtle and a regional lizard species too. Here is the list of reptiles found in the park –

ENGLISH NAME	SCIENTIFIC NAME
BLACK KRAIT	<i>Bungarus niger</i>
COMMON KRAIT	<i>Bungarus caeruleus</i>
BANDED KRAIT	<i>Bungarus fasciatus</i>
BENGAL COBRA	<i>Naja kaouthia</i>
KING COBRA	<i>Ophiophagus hannah</i>
INDIAN COBRA	<i>Naja naja</i>
ROCK PYTHON	<i>Python molurus</i>
RETICULATED PYTHON	<i>Python reticulatus</i>
RUSSEL'S VIPER	<i>Vipera russellii</i>
PIT VIPER	<i>Trimeresurus spp.</i>
RAT SNAKE	<i>Ptyas mucosus</i>
GHARIAL	<i>Gavialis gangeticus</i>
ASSAM ROOFED TURTLE	<i>Kachuga sylhetensis</i>
INDIAN ROOFED TURTLE	<i>Kachuga tecta</i>
INDIAN TENT TURTLE	<i>Kachuga tentoria</i>
INDIAN EYED TURTLE	<i>Morenia petersi</i>
GANGETIC SOFTSHELL TURTLE	<i>Aspideretes gangeticus</i>
INDIAN BLACK TURTLE	<i>Melanochelys trijuga</i>
BROWN ROOFED TURTLE	<i>Kachuga smithii</i>
BROWN HILL TORTOISE	<i>Manouria emys</i>
COMMON INDIAN SKINK	<i>Mabuya carinata</i>
TUCKTO GECKO	<i>Gecko gecko</i>

TICTICKY HOUSE GECKO	<i>Hemidactylus frenatus</i>
COMMON BENGAL MONITOR	<i>Varanus bengalensis</i>
INDIAN WATER MONITOR	<i>Varanus salvator</i>
ASSAM GARDEN LIZARD	<i>Calotes maria</i>
DOTTED GARDEN SKINK	<i>Lygosoma punctata</i>

4.2.4 AMPHIBIA

The amphibians residing in the sanctuary are listed below –

ENGLISH NAME	SCIENTIFIC NAME
PYGMY TREE FROG	<i>Chiromantis simus</i>
POINTED NOSE FROG	<i>Clinotarsus alticola</i>
COMMON ASIAN TOAD	<i>Duttaphrynus melanostictus</i>
INDIAN SKIPPER FROG	<i>Euphlyctis cyanophlyctis</i>
INDIAN CRICKET FROG	<i>Fejervarya limnocharis</i>
PIERREI'S CRICKET FROG	<i>Zakerana pierrei</i>
JERDON'S BULL FROG	<i>Hoplobatrachus crassus</i>

4.2.5 FISH

The Kaziranga National Park is home to a wide variety of aquatic life including about 42 species of freshwater fish. Here is the list of the fishes found in the park –

ASSAMESE NAME	SCIENTIFIC NAME
BAHU	<i>Catla catla</i>
CHANDA	<i>Chanda nama</i>
CHENGA	<i>Channa amphibia</i>
CHENGELI	<i>Channa orientalis</i>
SAL	<i>Channa marulius</i>
KOKILA	<i>Xenentodon cancila</i>
GARUA	<i>Bagarius bagarius</i>

ROHU	<i>Labeo rohita</i>
KUCHIA	<i>Amphipnous cuchia</i>
BANHHPUTHI	<i>Amblypharyngodon mola</i>
GOROI	<i>Channa punctata</i>
GONGATUP	<i>Tetraodon cutcutia</i>

4.2.6 INVERTEBRATE FAUNA

Kaziranga National Park is also home to a large number of invertebrate animal diversity which includes butterflies (*Papillo paris*, *Papillo castor*, *Parides aidoneus* etc.), many spiders, ants, various molluscans (*Pila globusa* etc.), Indian earthworm, locust, mosquitoes, various worms (like silkworm, tongue worm etc.), millipedes, dragon fly, beetles etc.

4.3 FLORAL DIVERSITY

The floristic composition of the Kaziranga National Park comprises of following forest types and biomes –

- Eastern Wet alluvial grasslands
- Assam Alluvial plains Semi-evergreen forests
- Tropical moist mixed deciduous forests
- Eastern Dillenia Swamp forests
- Wetlands
- Sandy “chars”

The percent coverage by vegetation is – Moist mixed deciduous forest 29.13%, Grass land 51.91%, Water logged/Beels 6.62%, Swamy/Marshy area 5.21% and Sand 7.12%.

Some of the common species of flora found in the park are elephant grass, sugarcanes, spear grass, common reed, kumbhi, Indian gooseberry, *Talauma hodgsonii*, *Duabanga grandiflora*, *Aphania rubra* and *Leea indica*. There are also many different aquatic flora in the lakes and ponds, and along the river shores.

5. DISCUSSION

5.1 FAUNA

The Kaziranga National Park is very rich in faunal diversity. Varieties of common as well as unique animals are found here. The diverse habitat type such as dense forest, fragmented vegetation, lowland grassland, aquatic bodies support different animals for their food and shelter. The altitudinal slope, pleasant climate, enough rainfall maintain the rich fauna.

5.2 FLORA

The park is quite rich in floral diversity too. The geology and soil parameters of the Himalayan foothill region are favourable for the growth and development of many evergreen, deciduous and epiphytic plants. Heavy rainfall during the monsoon and the Brahmaputra River maintain a good content of humidity in the soil and air of the national park.

5.3 ECOTOURISM

Kaziranga National Park is a tourist destination and conservation area particularly notable as a refuge for the endangered Indian one-horned rhinoceros, hosting the largest population of wild one horned rhinoceros in the world. Central govt. has included Kaziranga in ecotourism circuit of the integrated Development Tourism Circuit Scheme. The park contains significant stock of other large and small animals too. It also has the highest density of tiger in the world. It is also recognised as an important bird area for conservation of avifaunal species.

The means of travel inside the park is on the back of trained elephants with mahout guides or in jeep or 4WD vehicles. The park has three tourist routes under three ranges – Kohora, Bagori and Agaratoli. These roads are open for tourists from November to mid May and remains closed during monsoon. For spotting wildlife with better view, some observation towers are also situated at Sohola,

Mihimukh, Kathpara, Foliamari and Harmoti. Wildlife watching, including birding is the main activity inside the park.

Tourist can make entry to the Central, Eastern and Western zone of the park after paying a requisite entry fee to the park authority. Private sector investment in this tourist spot helps in changing the state tourism scenario. There are so many hotels and restaurant near Kohora and Bagori range of Kaziranga National Park, where tourist able to find best places to stay.

5.4 THREATS

At present Kaziranga National Park is facing so many problems. Some of these are discussed below.

FLOOD: Kaziranga National Park is situated in the bank of mighty Brahmaputra. The entire area is has been formed by silt deposition carried by different river systems flowing through it. Each year with increase in the water level of Brahmaputra River, the water level in the various water bodies and stream also raise .As the southern boundary of the national highway is at a height, animals often move to take shelter there during floods. This also invites poachers.

POACHING: The Park has continuously in the headlines in past few years, especially with poaching accounting for the loss of 27 rhinos in 2013.

POLLUTION: The petroleum refinery (Numaligarh Refinery Limited) is situated closely to the eastern range of the park. Water pollution due to run from NRL pose a hazard to the ecology of the region .The use of insecticides by the tea garden always get leached to the rivers and pollute the park lands and wetlands.

HABITAT LOSS: Brahmaputra River erodes large area along the northern boundary of Kaziranga, which reduces the total

geographical area of the park and thereby reduces the habitat for the wild animals.

SOIL EROSION: Due to erosion by the mighty Brahmaputra and other rivers, Kaziranga National Park that harbours the world's largest population of great one horned rhinoceros, is at high risk of permanently losing its habitat connectivity with the larger Karbi Anglong landscape.

6. CONCLUSION

Kaziranga for the last few years has been a successful wildlife conservation site for the world's famous Indian one horned rhinoceros and many more rare and threatened faunal diversity. Being one of the famous World Heritage Site, the sanctuary hosts two thirds of the world's great one horned rhinoceros. Providing home to many wildlife including the fascinating migratory birds from as far as Siberia, the National Park has been the theme of several books, songs and documentaries too. Thus, visiting this National Park is indeed a great experience.

LIOGRAPHY

ake this field study report, secondary data have
n collected from following sources –

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2. India Biodiversity Portal
3. Indian Mammals: A Field Guide by Vivek Menon
4. Birds of the Indian Subcontinent by R. Grimmett, C. Inskipp and T. Inskipp
5. Book of Indian Birds by Salim Ali

Wild Buffalo



One Horned Rhino



Sambar



Elephant



PHOTO GALLERY



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Lesser Adjutant



© Shutterstock

Bar Headed Goose



© Shutterstock

Ruddy Shelduck



Goose



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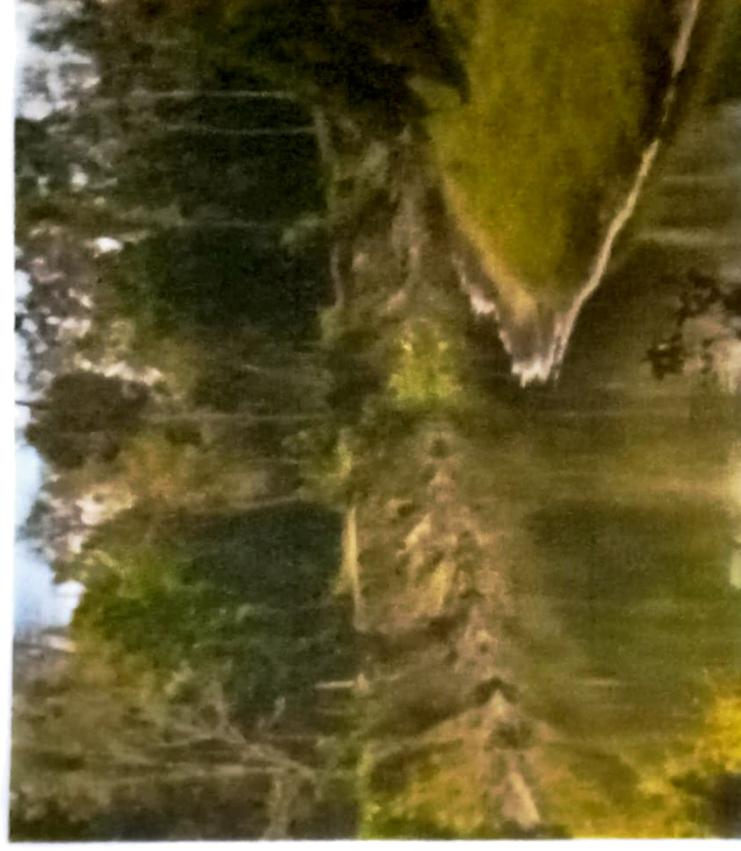
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Tortoise

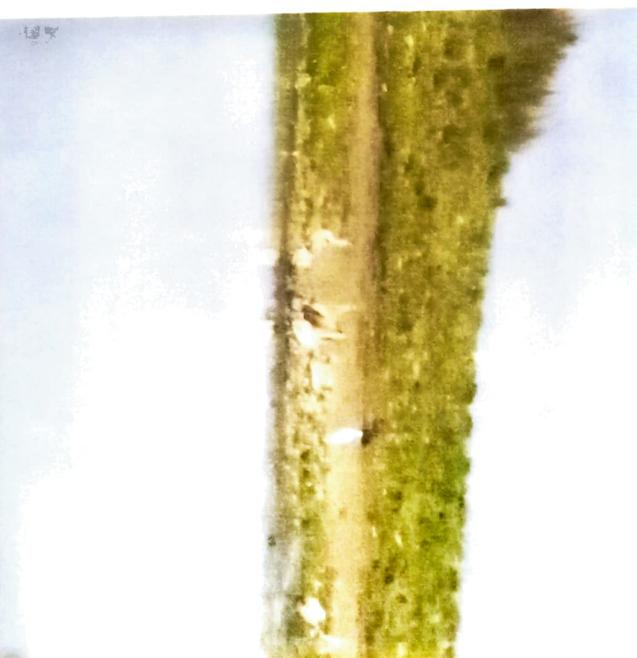


Rhinoceros with baby





Indian Roller



Asian Openbill Stork

