

# CERTIFICATE

This is to certify that Sri *Jyoti Rajil Gogoi*.....of  
4<sup>th</sup> semester of the session 2018 of the  
Department of Botany, Nanda Nath Saikia  
College, Titabar. She has prepared and  
completed this field study under my supervision  
and guidance.

Dr. Maalakshmi Dutta

Head of the Department

Nanda Nath Saikia College, Titabar

Dibrugarh University

*Examined*  
*Pallavi*  
*6/4/18*

Date: 06/04/2018

Place: Nanda Nath Saikia College, Titabar

# ACKNOWLEDGEMENT

At the very onset of my respect i deem it great privilege to offer my gratefulness to our college authority for providing financial support to our department for an excursion.

Secondly it gives me immense pleasure to express my deep sense of gratitude to our respectful lecturer Prof. Dr. Maalakshmi Dutta Madam, H.O.D of Botany N.N Saikia College, Titabar for her permission to visit Kaziranga National Orchid and Bio-Diversity Park.

I must offer sincere gratefulness and thanks to our honourable lecturer Prof. Dr. S.C Rajlkhowa Sir, Prof. Dr. Nazim Forid Islam Sir, and Prof. Dr. Hemen Sarma Sir who guided us during the tour to Kaziranga National Orchid and Bio-Diversity Park and made out the excursion more meaningful by their cordial help and proper guidance.

Finally, before closing i would like to express thankfulness to all my major mates, 4<sup>th</sup> semester students for making the trip successful by providing their share help and cooperation.

Sincerely,

Sri. *Jayanjit Gogoi*

B.Sc 4<sup>th</sup> Semester

Department of Botany

Roll No:

Registration No: *S 1624788*

Nanda Nath Saikia College, Titabar

# PREFACE

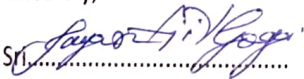
There are various sources of acquiring knowledge. We acquire knowledge by studying books or attending the educational institution. We also acquire knowledge by travelling and seeing things with our own eyes. The knowledge that we acquire by studying books or attending educational institution is only theoretical and cannot be completed by itself. Therefore, we need more practical education which is helpful to widen our range of knowledge. To do that, we have to travel places and see the various things with our own eyes. Educational excursion can give us that facility of practical and first hand knowledge and thus make our institutional excursion perfect.

Educational Institution has tremendous value in academic subjects. Hence it has now become a part and parcel of all academic subjects. The curriculum for both arts and science subjects, now-a-days include excursion as an essential part. Botany is a science subject and the value of excursion in Botany is undoubtedly great.

The botanical excursion thus presents a valuable opportunity to the students studying botany to get a clear conception about the different environmental condition ecology distribution of flora in different regions. The educational institution on authority therefore arranges tours of the students in order to help them in acquiring practical knowledge of their subjects. The students of Botany have read various names and habit of plants but that is only theoretical success which is hardly co-impressive, one sided and incomplete practical observation is more effective than what they get from books in scientific education. The educational excursion also helps to collect information of plants growing under different conditions description of the flora and ecological controlling of the vegetation.

A picture of the records of one Botanical excursion is explained. There that I have participated in my B.sc 4<sup>th</sup> Semester classes on a part of practical examination. The report contains the vegetation and topography and climatic condition of the visited area.

Sincerely,

Sr. 

B.sc 4<sup>th</sup> Semester

Department of Botany

Roll No.:

Registration No.: 51624788

# INDEX

- Introduction
- One day excursion to Kaziranga National Orchid and Bi-Diversity Park
- Description of Orchid species found there with photographs.
- Description of Cactus species found there with photographs.
- Description of Medicinal plant species found there with photographs.
- Description of Rice species found there with photographs.
- Conclusion

# INTRODUCTION

In the study of the different subjects of science the knowledge acquired from the book is not enough to satisfy our knowledge about the different topics of science.

The subject of Botany deals with the plant kingdom. Hence the aim of the student of Botany is to gather the knowledge about the countless plants of thousand varieties of plants of the world under different environmental conditions. Excursion is unavoidable though essential medium in this connection.

The plants which are studied in the laboratory are not in their actual mode of development. So are knowledge about them is not complimentary. It is not enough to know about the morphological and anatomical details of plants which we usually done in the laboratory. But more important is to know how their morphology and anatomy are adapted to the surrounding environmental condition. Thus excursion to different places which helps us to collect some correct information about the plants in different environmental condition is important.

Our Excursion: for the attainment of the above mentioned benefits our department authority in accordance with the rules set fourth by the esteemed Dibrugarh University, arranged a compulsory excursion trip for the students of B.sc 4<sup>th</sup> semester in order to get "a bird eye view" of botanical wealth of nature and study plants growing in these actual mode of development.

# One day excursion to Kaziranga National Orchid and Bio-Diversity Park:

The site to be visited by Botanical excursion was decided unanimously as Kaziranga National Orchid and Bio-Diversity Park.

**Our Team:** The excursion team consisted of 35 students and supervised by Honourable departmental teachers.

**The Journey:** Our excursion to Kaziranga National Orchid and Bio-Diversity Park is a Botanical excursion on the 21<sup>st</sup> of March, 2018.

The site was totally amazing with different types of orchids and other cultural heritage and some antique photographs preserved and decorated serially.

**About the Site:** A dream orchid and Bio-Diversity park has finally arrived. Orchids are the greatest after tea and petroleum, we are known across the world for a great variety of orchids found in our forests, hills and mountains. Orchids are the symbol of our natural heritage and our pristine natural health. Assam's own state flower is Kapou (*Rhynchostylis retusa*), a popular orchid.

Across the natural world of North-East India, there are innumerable varieties of orchids. Across the world there are approximately 25,000 to 35,000 varieties of orchids. India has approximately 1314 varieties. Till now scientists have been able to identify only about 850 varieties of orchids in North-East India of which Assam has 402 species. More varieties might be discovered in future.

We might house such a priceless treasure, but we know little about them. Expect few well-known species, we are little aware of this extraordinary natural heritage.

This park has housed 600 more varieties of wild orchids. Our team of experts collects all of them from different locations of North-East India. Many of them are of rare and would be found only locally. Possibly, some may not even have a name. We have planted all of them in a wild state. Also, we have placed them in a green house along with some select hybrid varieties. Some refuses to be plants anywhere expect their own habitat. Our park has the smallest variety of orchid found in India.

## **A Rice Museum**

The North-East India is also home to a large number of rice species, which are grown in different seasons. Most of them have disappeared from our daily recipes, or our farmers have no access to their seeds. Some varieties can cop up with natural challenges like flood etc. Most of these natural species are enriched with nutritional values.

Their team of experts has worked tirelessly to collect those native specimens, collect their history and have carefully built a repository of more than 200 varieties of rice cultivated in this locality. Very soon we will encourage our farmers to cultivate them in their fields.

### **A Fish Pond**

Fish is also part of our natural heritage. The native varieties are fast disappearing from our rivers, bills and ponds for various reasons. As an experiment, we have collected selected indigenous species and preserved them in two ponds within this park. A boating facility is also available in the Park

### **A nature Walk:**

Everyone will cherish a walk through the splendid natural pathways within the Kaziranga National Orchid and Bio-Diversity Park. One can enjoy nature's beauty in silence and immerse in deep thought.

### **A Place for folk-cultural Practices:**

The park also houses a center to promote native cultures of Assam. These are regularly shown to arriving tourists. Throughout the day our folk-artists are playing in a natural setting of their own. One might be playing flute or another one playing with her instrument. Tourists will also be able to get a taste of North-East India's ethnic food.

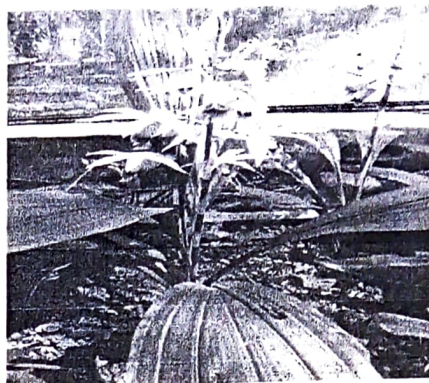
### **New Editions:**

- 1) A cactus garden is developed with species from all over India.
- 2) A bamboo garden is planned and developed with all the species of the NE India.
- 3) A photo-gallery of the Archaeological sites of the North-East India.
- 4) Scientific amusements for the children.

# Description of Orchid species found there with photographs:

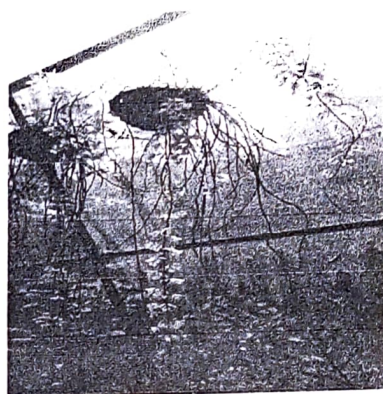
## 1. *Phaius tancarvilleae*.

This species differs in having conical or roundish pseudobulbs sheathed by leaf bases. The large leaves are strongly nerved and folding. Inflorescence arises from the base of pseudobulb, growing up to 150cm tall, bearing about 10-20 flowers. Flowers are large 12 cm across, fragrant, but colour with a hue of brown, white towards the margin and the trumpet shaped lip in white with orange yellow base streaked with red. Embracing the column. Flowers are long lasting from March to June



## 2. *Dendrobium lituiflorum*:

A deciduous species found in tropical zones in mixed deciduous forests-more often found in Terminalia plantation. The long pendulous measuring up to 60 cm bear purple flower all along the leafless stem at the nodes in cluster of 3 to 5. Flowers are up to 6 cm across, there sepals and petals spreading. Lip white with purple transverse strips, trumpet-shaped, puberulous. Flowering February to April.



## 3. *Dendrobium anceps*

An epiphytic species with foliage which appears like that of a cactus or a succulent plant. The leaves are pendulous and the stem are overlapping in zigzag appearance and are fleshy and deciduous. This species flower are summer to fall an the flower with the ruffed lip appear on the terminal with small and fragrant flowers on the apex. Flowers are 1-1.25 cm in size and typically yellow in colour but some other forms of green. It is found growing in tropical and sub-tropical valleys at an elevation of 200-1400 meters.



## 4. *Taeniophyllum crapidiforme*

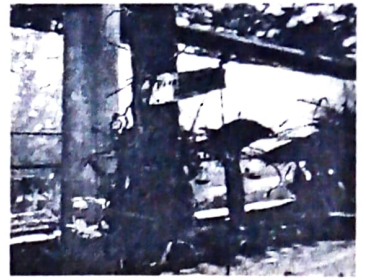
It is a leafless species, vary short column and rostellum. Roots are thin, flat, numerous with small inflorescence of 3-4 flowers. Flowering in September.





### **5. *Phalaenopsis lobbli***

A cute miniature species native to India with small 3-2 inch leaves. The flowers are coloured white and have light chocolate lip lips that are hinged and move about the wind.



### **6. *Dendrobium primulinum***

Fragrant. Need a distinct dry season during winter 1-2 inch flowers coloured in crystalline white with purple sepals and petals



### **7. *Phalanopsis mannii***

A pretty species with short stem, large leaves measuring up to 30\*6 cm, pendulous inflorescence, often branching, found in tropical zones forests of evergreen . Flowers are beautiful yellow with brownish purple markings, wavy. Fragrant , about 4 cm across, one opening at a time long lasting over a month. Lip clawed. Flowering April-May.



### **8. *Dendrobium aphyllum*:**

A lovely orchid with long pendulous stems bearing flower all along. Generally found in tropical mixed deciduous forests or in evergreen forests. They are leafless at the time of flowering. Flowers are pale rose with yellow pubescent lip. They are found in flowers during April –May



**9. *Dendrobium densiflora*:**

Most charming evergreen orchid producing golden yellow flowers densely on decurved axis giving an appearance of a rip pineapple fruit. Leaves are cluster at apex giving a fan like appearance. The inflorescence is produced between the leaves bearing dense golden yellow flowers, the lip bearing orange yellow. Flowering April -May.



**10. *Gastrochilus calceolaris*:**

A short stemmed species with 6-8 narrowly oblong laterally pendulous leaves. Inflorescence 2-3, corymbose, bearing several beautiful flowers. Flowers 1.5 cm across, greenish yellow with large brown markings. Lip broadly saccate with semi circular, papillose apical lobe. Flowering March -April. Found in tropical valleys.



**11. *Dendrobium lindleyi*:**

Plants of smaller habit but having longer pseudobulbs and many flowered raceme. Flowers are 3 cm across, pale yellow depending on the age. Flowering February-March. The species is found in sub tropical zone.



**12. *Vanilla borneensis*:**

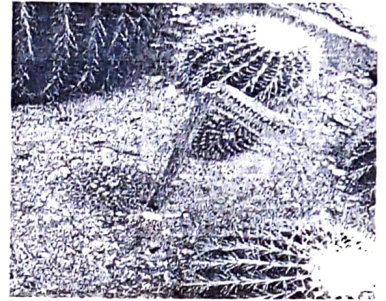
Monopodial terrestrial climbing orchid, stem and leaves succulent, rooting from node, Leaves thick, oblong; apex acute. Inflorescence arise from node. Lateral petals similar to sepals; labellum whitish pink with dark purple veins inside. Operculum green



# Description of Cactus species found there with photographs:

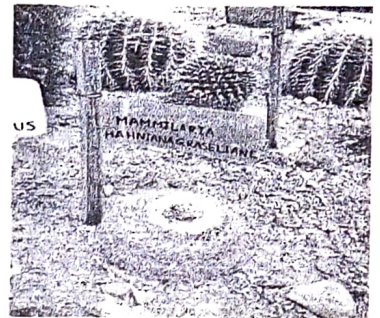
## 1. *Echinocactus*:

Members of the genus usually have heavy spination and relatively small flowers. The fruits are copious woolly. Propagation by seed.



## 2. *Mammillaria*:

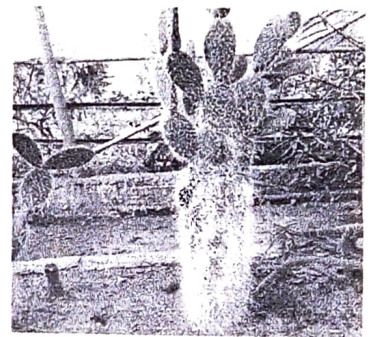
The spines of the cacti are either straight or hooked. Many small flowers, in a variety of colours, are borne between the tubercles in rings around the plant below the tip. Although some species may reach only 5cm in height and only a few exceed 60cm most grow to less than 30cm. A number of them, such as old woman cactus and feather cactus are woody or hairy.



## 3. *White ghost*:-

Commonly known as Dragon bones tree.

Origin:-Grows wild in tropical Asia. Widely cultivated in West Indies, Florida and in many tropical areas world wide. Widely escaped from cultivation and in many places forming dense thickets.



## 4. *Mammillaria hahniana*:-

(old lady cactus) is a species of flowering plant in the family cactaceae, native to central Mexico. It grows to 25 cm (10 in) tall by 50 cm (20 in) broad. The solitary spherical stems, 12 cm in diameter, are covered in white down and white spines. Reddish purple flowers are borne in spring and summer, sometimes forming a complete ring around the apex of plant.



# Description of Medicinal Plant species found their with photographs:

## 1. *Clitoria ternatea* :-

Commonly known as Asian pigeonwings, bluebellvine, blue pea, butterfly pea, cordofan pea and Darwin pea is a plant species belonging to the family Fabiaceae family. The flowers of this vines were imagined to have the shapes of human female genitals.



## 2. *Desmodium gangeticum* :-

Parts used:- Roots and whole plant.

Systems of Medicine:- Ayurveda, Folk, Homeopathy etc.

Uses:- Roots are used for cardiac disorders, fever, cough, difficult breathing, dysentery and vomiting, whole plant is a rejuvenator used for oedema, polyuria, piles, and vomiting.



## 3. *Melissa officinalis* :-

Parts used:- Leaves

Systems of Medicine:- Ayurveda, Folk, Homeopathy etc.

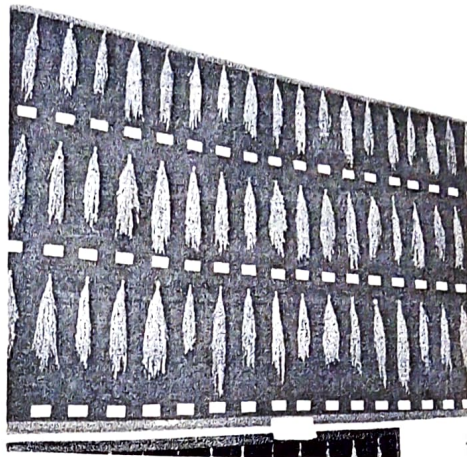
Uses:- Leaves are used as a carminative, hepato protective and stomachic.



# Description of Rice species found there with photographs:

The North-East India is also home to a large number of rice species, which are grown in different seasons. Most of them have disappeared from our daily recipes, or our farmers have no access to their seeds. Some varieties can cop up with natural challenges like flood etc. Most of these natural species are enriched with nutritional values.

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# CONCLUSION

**Kaziranga Orchid** Park is a important place due to the avilibility of its diversity of orchids and many other important plant species; But now we have observed that this diversity is dehiscings due to its dense flora which mesmerises the sit for tourists .It helps us to could extra knowledge and information about the orchids as well as other types of plants. Which will surely help us for the further detailed studies.