



Rambling in and around AAU, Jorhat





Rambling in and around AAU, Jorhat



Professor Bidyut K Sarmah
Dr. Mukund V Deshpande



Publisher : DBT-North East Center for Agricultural Biotechnology
Assam Agricultural University, Jorhat

Name of the Printer : SS Graphics, Guwahati
Copyright : Assam Agricultural University, Jorhat

Year of Publication : April 2023
First Edition : April 1, 2023

Photographers and Editors
Professor Bidyut Kumar Sarmah, Director
DBT-North East Centre for Agricultural Biotechnology
ICAR- National Professor
(Norman Borlaug Chair) (2016 - 2021)
Assam Agricultural University, Jorhat

Dr. Mukund V. Deshpande
PhD, DSc, FMASc, FSBA
Former Chief Scientist CSIR-NCL
Director
Greenvention Biotech Pvt. Ltd.
Uruli-Kanchan-412202
Scientific Advisory Committee member
DBT-NECAB, AAU, Jorhat



Contents

Cover page

Messages from Vice Chancellor

From Editor's desk

About AAU and DBT-NECAB

Poem, relaxing in the lap of nature

Nature walk

Orchids

Other flora

Fauna

Acknowledgement

Further readings (references)

Google map (Inside back cover)

Back page




Message from the Vice Chancellor



It gives me an immense pleasure to learn that a coffee table book is all set to be published by the DBT-North East Centre for Agricultural Biotechnology (NECAB) of our university to showcase the enriched flora and fauna of AAU.

I understand that Professor Bidyut Sarmah, Centre Director of DBT-NECAB during his regular strolling and our esteem visitor Dr. M.V. Deshpande during his ramblings on the campus have captured the rich biodiversity and the beauty of natural environment of the campus with their camera lenses. This book is a collection of few rare photographs captured by Dr. Sarmah and Dr. Deshpande.

I congratulate both Professor Sarmah and Dr. Deshpande for their efforts to make this excellent coffee table book about campus for nature lovers. I am sure our esteem visitors would be happy to have the copy of this book too.


(Bidyut C Deka)

November 2022

From the Editors' Desk

The early morning rambling in and around AAU campus gives us an opportunity to admire the environs of the campus and the wealth of flora that we live amongst. There are some spots on the campus which still are untouched. While there are some spots which are developed for conservation of biodiversity. The sighting of resident birds as well as occasional local migrants, butterflies and animals is an eye-pleasing experience. This is a great opportunity for nature lovers like us to catch the moments with a camera lens, especially for rare sightings. On one side, most of the deforestation is happening for urbanization while on the other side the flora and fauna in and around AAU creates pleasant environment for residents as well as to the visitors.

Interestingly recent pandemic has given most of us an opportunity to revisit our nature-ramblings, in form of photos, and share everyday on what's app. Both of us decided to compile of our selected photos of the Flora and Fauna, landscapes in and around AAU. The ramblers and visitors of our campus can enjoy nature in the form of a coffee table book. Both of us take this opportunity to thank Hon. Vice Chancellor for allowing us to make this rambling around the campus. We appreciate efforts of various departments in not only beautification of the campus but also for developing different gardens around.

Bidyut K Sarmah
November 2022

Mukund V Deshpande





Assam Agriculture University (AAU) is the first institute established for agriculture in North-Eastern region of India. It was founded on April 1, 1969 under The Assam Agricultural University Act, 1968 for knowledge-based farm education, and research in agriculture to develop technologies for the mankind.

Government of India has taken one more step for the prosperity of North-Eastern region. In February 2011, Department of Biotechnology, New Delhi made a centre in AAU for Agriculture Biotechnology and AAU has moved one step ahead as a leader in the N-E region.

Relaxing in the lap of Nature, I asked her-
Hey! What is the secret of your beauty!
She smiled and whispered-
"It's simple,
I am Natural, Harmonious and Generous
too".

With loving touch of sun rays, flowers
smile, breeze blows and birds sing,
With shower over the forested hill, joy
rolls down the jumping spring.

Spreading hope in the green crop field,
river flows to the ocean,
Droplets fly through sky to meet the
cloud only to comeback again.

Nature whispered-
"You too have your own beauty- I am
incomplete without you,
Just be Natural, Harmonious and
Generous too".

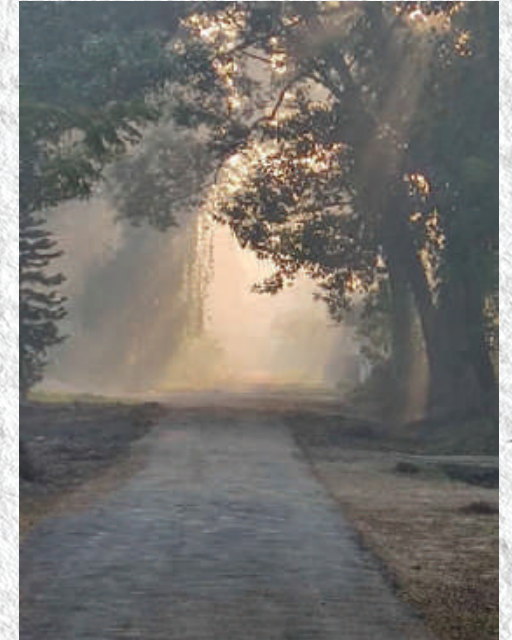
প্রকৃতিৰ কোলাত জিৰাই প্রকৃতিকেই শুধিলো -
কবানে বাৰু তোমাৰ শোভাৰ গোপন কথাবোৰ!
তাই হাঁহি মাৰি লাহেকৈ ক'লে -
“বিশেষ একো নাই-
মোৰ বুকুত নিৰলে বাজে
সবাকে মিলোৱাৰ আৰু নিজকে বিলোৱাৰ সুৰ।।

কোমল ৰদালিৰ পৰশ লাগি
ফুলে হাঁহে, মলয়া বলে, পখীয়ে গীত গাই,
পাহাৰৰ বনগিত বৰ্ষা দেখি
জুৰিটিয়ে আপোন মনে শিলে শিলে জপিয়াই।

সেউজ পথাৰত সপোন সিচি
নৈ খনি বৈ যায় দূৰ দূৰণিৰ নীলা সাগৰ পিয়াই,
ধৰা বুকুলৈ পুনৰ আহিবলৈ
পানী কনা বোৰো মেঘৰ দেশলৈ উৰা মাৰি যায়।

প্রকৃতিয়ে কানে কানে কলে
“বন্ধু, তোমাৰ শোভাও অপাৰ,
যুগ যুগৰ চিনাকি তোমাৰ আৰু মোৰ,
এবাৰ মাথো প্ৰাণত বজোৱা
সবাকে মিলোৱাৰ আৰু নিজকে বিলোৱাৰ সুৰ”।।

Professor Arup Kumar Sarma
Department of Civil Engineering
IIT, Guwahati





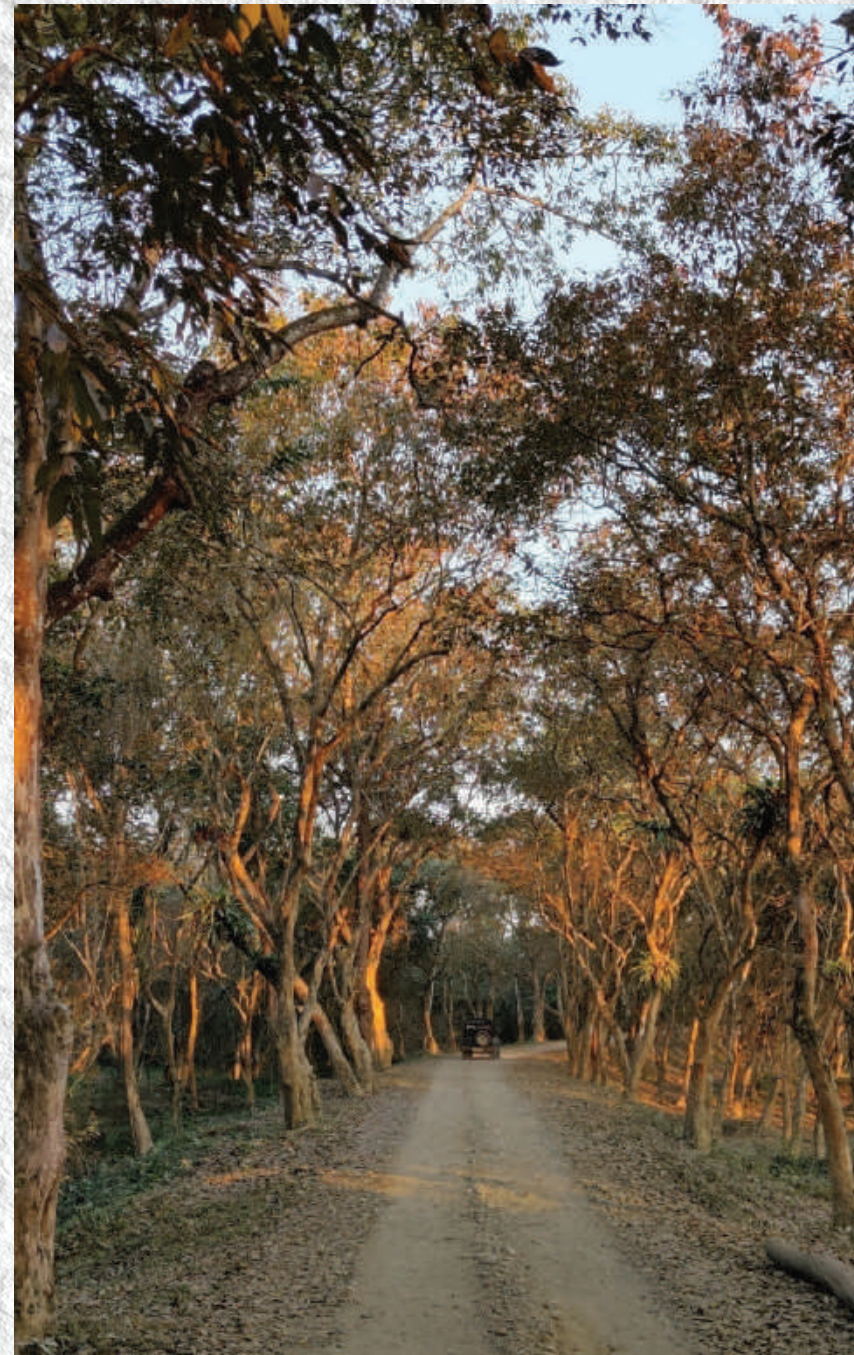
“Axom Amar Rupahi Gunoru Nai Xex
Bharatore Purbo Dixot Xurjya Utha Dex”
Dr Bhupen Hazarika

Nature walk in and around AAU

"In every walk with nature, one receives far more than he seeks"

-John Muir
(1838-1914)

Scottish-American naturalist





Beautiful and aesthetically pleasing place; worthy of being visually preserved in a picture



In Greek mythology, Narcissus fell in love with his own reflection in a pool of water

Illusion

An instance of a misinterpreted perception





An orchid in a deep forest sends out its fragrance even if no one is around to appreciate it

Rhyncostylis retusa, the state flower of Assam, and is an integral part of a Bihu dancer's attire. The plant is considered to be a symbol of love, and fertility



Bihu is not just a dance form but also an important depiction and representation of the diverse culture of the Assamese people. The quick steps and rapid movements of hands, swinging bodies with grace balancing maintaining the rhythm of the music. The colourful costumes and bright smiles make it a more extraordinary dance form.





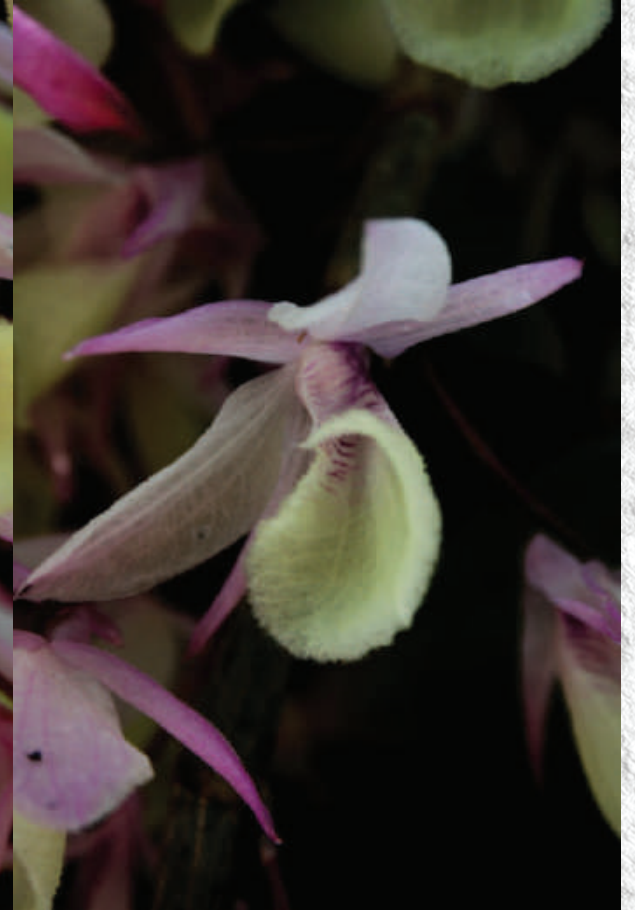
Red crucifix orchid
Epidendrum radicans



Golden arch dendrobium
Dendrobium chrysotoxum



Primrose dendrobium
Dendrobium polyanthum



Cattleya species



Vanda species Pink and Blue





Spicer's Slipper orchid
Paphiopedilum spicerianum



Lady's Slipper orchid
Paphiopedilum hirsutissimum



Moth orchid *Phalaenopsis* species



Rhynchosstylis species



Oncidium species



Zygopetalum species



Dendrobium species



Aerides species

Flora

Natural and in man-made gardens

AAU has its own tea garden





Bauhinia acuminata
Dwarf white orchid tree



Bottle brush
Callistemon nanciolatus

One with needle-
like leaves and
brush flowers





Plumeria rubra





Mimosa pudica

Wound healing property, anti-diabetic
and anti-inflammatory



Melastoma affine

Usually planted for its aesthetic value



Parijat/Sewali *Nyctanthes arbor-tristis*

The flowers are used to cure a large number of diseases, such as the prevalent fever, sciatica and arthritis.



Under the dark green shades, the Parijatak sparkles
Like the flickering of lamps on a Deepavali night,
As if the message of the stars dotting the sky
Is rewritten with letters of silver on a lush green foliage
The white flowers are strewn on the grass like an 'anchal'
Its fragrance wafting in the listless wind of the garden-path
Lingering like a strain of melancholy at the end of a busy day

- Rabindranath Tagore





Gulmohar, Poinciana regia



Christmas tree, *Araucaria cookii*
Captain Cook's pine





Rain tree

Only for delight without reason
rush forward in a violent flow
Like a flash of light reflected in
the river water
Lead a glittering life with loose
ties on the earth
Just as the dew just touches and
oscillates on the locks of the
shireesh flowers

- Rabindranath Tagore



Bokul

Mimusops elengi

The flowers are used to extract a volatile oil
Fruits and seeds for the compounds such as quercitrol,
ursolic acid, triterpene alcohol, and di-hydroquercetin





Nahor
Mesua ferrea



Nagkesar

The dried flowers are used in case of bleeding piles, dysentery with mucus, irritability of the stomach, excessive perspiration, skin infections, cough and indigestion.

Mango *Mangifera indica*



Many like the "Parijaat" have fragrant blossoms, but the "Rasal" the mango, alone is the koel's blossom

- Subhashitratnabhandagaram



Guava
Psidium guajava



Jackfruit
Artocarpus heterophyllus



Jamun, *Syzygium cumini*
Fruit is beneficial for digestion,
anticancer properties, seed has
antidiabetic, astringent properties



Banana *Musa* species
Fruit is rich source of Vit B6,
magnesium and potassium



Teteti, *Tamarindus indica*



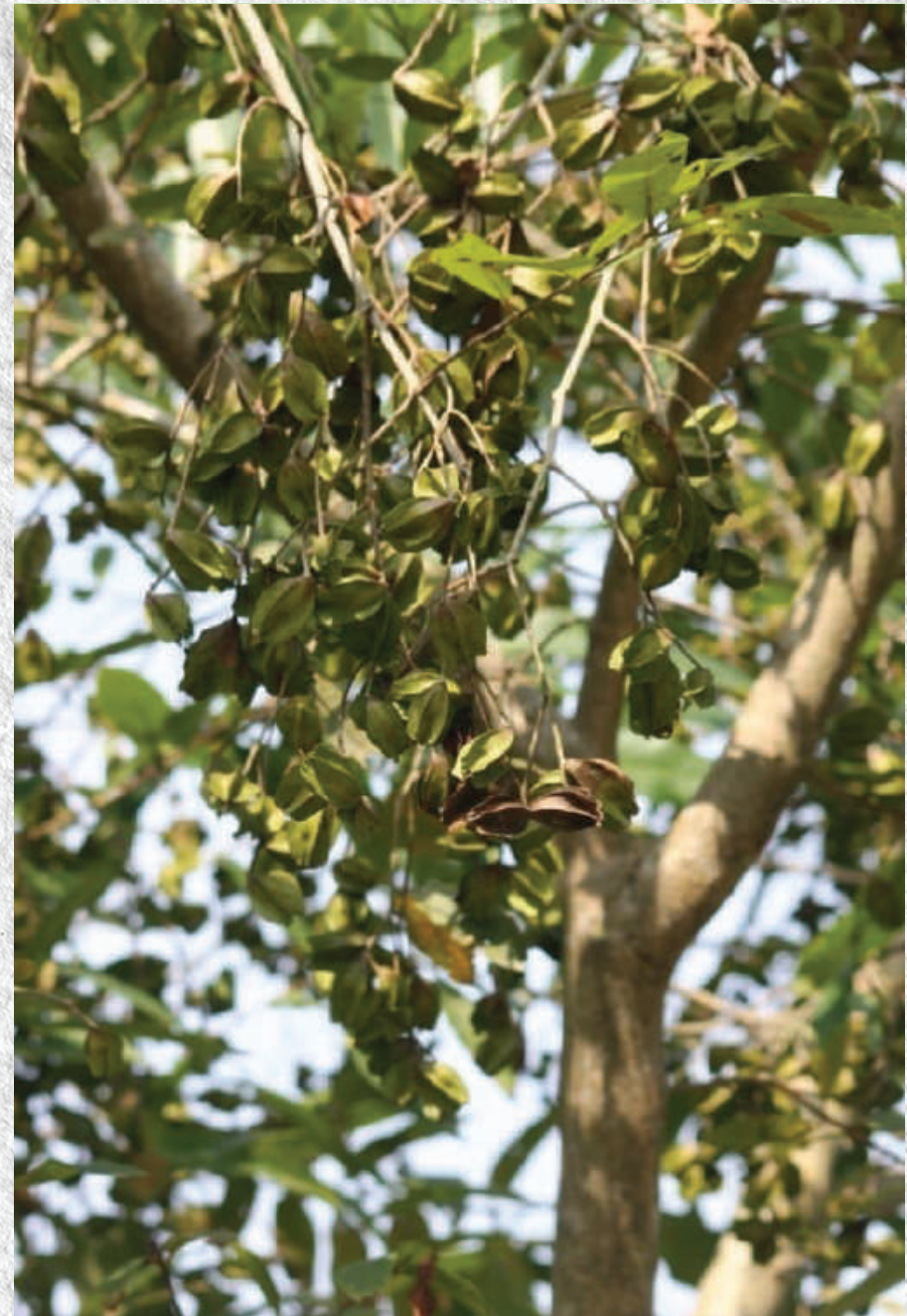
All I need are sunsets and palm trees
-Allison Green





Millettia species
are investigated for the use as biofuel

Arjun tree
Terminalia arjuna





Neem tree, *Azadirachta indica*

Eucalyptus, Eucalyptus citridora

The “Neelniryas” tree, its green leaves full of
fragrant oil
-Indian Medicinal Plants





"When the mind is silent like a lake the
lotus blossoms."

- Amit Ray



Mahogany *Swietenia mahagoni*

The green leaved rare and endangered tree





Banyan Ficus benghalensis

How noble is the life of those, whose roots are embedded in the "Mahi", the earth. For they sustain all life. For they deny no one, who beg of them

- Subhashitratnabhadagaram

Khota Ashoka

Saraka indica

The one who is hot, bitter and dry
-Dravyagunvigyan



Sita's Ashoka

Saraca asoca

An evergreen tree that
prevents grief



List of tree species on AAU Campus

Acacia, <i>Acacia sp.</i>	Koronj, <i>Pongamia pinnata</i>
Amlakhi, <i>Phyllanthus embilica</i>	Litchi, <i>Litchi sinensis</i>
Arjun tree, <i>Terminalia arjuna</i>	Mahagoni, <i>Scoitenia mahagoni</i>
Ashok tree, <i>Saraka indica</i>	Mango, <i>Mangifera indica</i>
Bottle brush, <i>Callistemon nanciolatus</i>	Mangosteen, <i>Garcinia mangostana</i>
Christmas tree, <i>Araucaria cookii</i>	May flower, <i>Lagerstroemia indica</i>
Debdaru, <i>Polyalthia longifolia</i>	Mussaenda, <i>Mussaenda phillippica</i>
Eucalyptus, <i>Eucalyptus citridora</i>	Nahor, <i>Mesua ferrea</i>
Ficus, <i>Ficus benghalensis</i> , <i>Ficus retusa</i>	Neem tree, <i>Azadirachta indica</i>
Guava, <i>Psidium guavjava</i>	Rain tree, <i>Samanea saman</i>
Gold mohar, <i>Delomix regia</i>	Royal palm, <i>Oreodexa regia</i>
Indian agar wood <i>Aquilaria sinensis</i>	Segun, <i>Tectona grandis</i>
Jackfruit, <i>Artocarpus heterophyllus</i>	Sewali, <i>Nyctanthes arbortristis</i>
Jamun tree, <i>Syzygium cumini</i>	Shilikha, <i>Terminalia chebula</i>
Kanchan, <i>Bauhinia alba</i>	





Silver oak, <i>Grevillea robusta</i>	Teteti, <i>Tamarindus indica</i>
Simalu tree, <i>Simarouba glauca</i>	Thuja, <i>Thuja orientalis</i>
Simolu tree, <i>Bombax malabaricum</i>	Togar, <i>Gardenia florida</i>
Siris tree, <i>Albizia lebbek</i>	Traveller's tree, <i>Ravenala madagascariensis</i>
Sotiana, <i>Alstonias cholaris</i>	Yellow flame tree, <i>Peltophorum pterocarpum</i>

Dr. Kalyan Pathak
Professor and Head
Department of Agronomy
Assam Agricultural University, Jorhat-785013



Glazing beauty, *Bougainvillea* species
Anti-inflammatory, anti-pathogens, anti-tumor and anti-fertility properties

Man-made garden



Man-made garden



Man-made garden



Man-made garden





Man-made garden

Avian diversity

The landscape of Assam is unique to explore avian diversity.

Last couple of years 418 species of birds were recorded including 81 long distance migrants

The White-winged Duck (*Deoha Asarcornis scutulata*) is the State Bird of Assam. It is locally known as deohaanh. According to the IUCN Red List, the White-winged Duck is an endangered species, due to rapid decline of and disturbance to riverine habitats. Indian Postage Stamp (1985)



Sketch by :
Dr. Vandana Ghormade
Senior Scientist
Agharkar Research Institute, Pune



Indian spot-billed duck *Anas poecilorhyncha*



Oriental stork *Ciconia boyciana*

Indian spot-billed duck *Anas poecilorhyncha*



Anser cygnoides domesticus



Indian spot-billed duck *Anas poecilorhyncha*



Egret intermediate *Ardea intermedia*

Cattle egret *Bubulcus ibis*



Painted stork *Mycteria leucocephala*



Cormorant, *Phalacrocorax niger*



Bar-headed goose *Anser indicus*

Common Sandpiper
Actitis hypoleucos





Indian pond heron
Ardeola grayii

“Guests” at AAU guest house





White-breasted waterhen *Amaurornis phoenicurus*



Purple swamphen *Porphyrio porphyrio*



Indian roller *Coracias benghalensis*



Barbet blue-throated *Megalaima asiatica*



Barbet coppersmith *Psilopogon haemacephalus*



White pigeon *Columba species*

Shivadol, Sivasagar built by
Bar Raja Ambika, queen of
Ahom King Swargadeo Siba
Singha in 1734



Spotted dove *Spilopelia chinensis*



Laughing dove



Blue rock pigeon *Columba livia*



Black Drongo *Dicrus macrocerus*

Indian paradise flycatcher *Terpsiphone paradisi*



Male



Female



Taylor bird, *Orthotomus sutorius*





Sunbird purple *Nectarinia asiatica*





White-eye indian *Zosterops palpebrosus palpebrosus*



84 Tickell's blue flycatcher *Cyornis tickelliae tickelliae*



Oriental magpie-robin *Copsychus saularis*



Bulbul red vented *Pycnonotus cafer*





Yellow-crowned woodpecker *Leiopicus mahrattensis mahrattensis*



Lapwing yellow-wattled
Vanellus malabaricus



Lapwing red-wattled
Vanellus indicus



Shrike grey-backed
Lanius tephronotus



Shrike brown *Lanius cristatus*



Green bee-eater *Merops orientalis*

Male



Female



Weaver bird *Ploceus philippinus*

Koel Asian, *Eudynamys scolopaceus*



Male



Female

House crow *Corvus splendens*



Most intelligent bird

The total number of neurons in crows are about 1.5 billion. The overall intelligence of crows may be closer to that of Great Apes such as the gorilla- Dirk Schulze Makuch, Smithsonian Magazine February 2021



Myna brahminy *Sternia pagodarum*



Myna bank *Acridotheres ginginianus*



Myna jungle
Acridotheres fuscus



Myna common
Acridotheres tistis



Myna pied
Sturnus contra



Spotted owlet *Athena brama*



Brown boobook
Ninox scutulata



Great tit,
Parus major



White -throated kingfisher
Halcyon smyrnensis smyrnensis



Treepie *Dendrocitta species*



Oriental pied hornbill *Anthracoceros albirostris*



Yellow-tailed oriole *Icterus mesomelas*



Assam Bangiya Saraswat Math

Indian nightjar *Caprimulgus asiaticus*



Camouflage/ cryptic coloration, a defense mechanism; organisms blend in with their surroundings to mask their location, identity, and movement.



Alexandrine parakeet
Psittacula eupatria

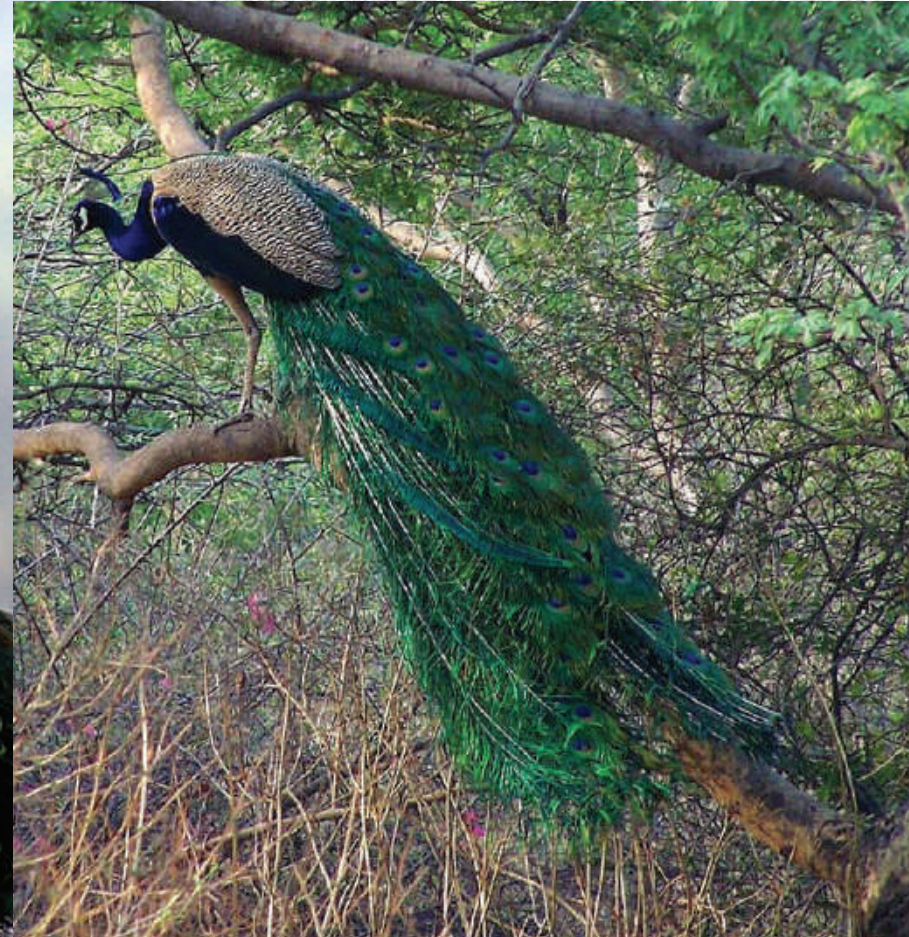


Rose-ringed parakeet
Psittacula krameri





Indian peafowl
Pavo cristatus



This gorgeous and majestic bird Peacock is the national bird of India.
It is a symbol of beauty, joy, grace and love

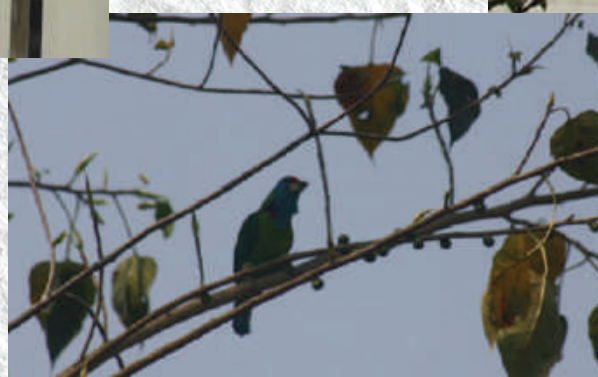
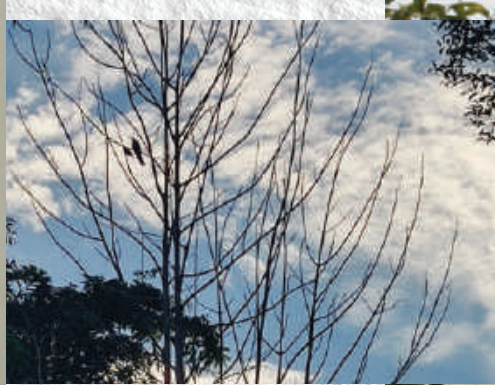
The list of birds commonly spotted in Assam
Number of species spotted in Assam: 949; Number of globally threatened species: 59

Asian openbill stork <i>Anastomus oscitans</i>	
Black drongo <i>Dicrus macrocerus</i>	
Babbler striated <i>Turdoides earlei</i>	Cormorant, <i>Phalacrocorax niger</i>
Barbet blue-throated <i>Megalaima asiatica</i>	Crow house, <i>Corvus splendens</i>
Barbet coppersmith, <i>Psilopogon haemacephalus</i>	Crow jungle <i>Corvus macrorhynchos</i>
Barbet lineated <i>Megalaima lineate</i>	Egret intermediate <i>Ardea intermedia</i>
Bar-headed goose <i>Anser indicus</i>	Egret little <i>Egretta garzetta</i>
Barn swallow <i>Hirundo rustica</i>	Eurasian tree sparrow, <i>Passer montanus</i>
Black hooded oriole <i>Oriolus xanthornus</i>	Great tit, <i>Parus major</i>
Blue rock pigeon <i>Columba livia</i>	Green bee-eater <i>Merops orientalis</i>
Bulbul red vented <i>Pycnonotus cafer</i>	Indian nightjar <i>Caprimulgus asiaticus</i>
Cattle egret, <i>Bubulcus ibis</i>	Indian peafowl <i>Pavo cristatus</i>
Chestnut – tailed starling <i>Sturnus malabaricus</i>	Indian pond heron, <i>Ardeola grayii</i>
Collared scops owl <i>Otus bakkamoena</i>	Indian roller <i>Coracias benghalensis</i>
Common Barn Owl <i>Tyota alba</i>	Jacana bronze-winged <i>Metopidius indicus</i>
Common coot <i>Fulica atra</i>	Koel asian, <i>Eudynamys scolopaceus</i>
Common kestrel <i>Falco tinnunculus</i>	Kingfisher pied <i>Ceryle rudis</i>
Common stone chat <i>Saxicola torquatus</i>	Kingfisher white throated <i>Halcyon Smyrnensis</i>
Common swift <i>Apus apus</i>	Parakeet rose-ringed <i>Psitacula krameria</i>
Common woodshrike, <i>Tephrodornis pondicerianus</i>	Plaintive cuckoo <i>Cacomantis merulinus</i>
Lapwing red-wattled <i>Vanellus indicus</i>	Ruddy shelduck, Brahminy duck <i>Tadorna ferruginea</i>

Lesser whistling duck <i>Dendrocygna javanica</i>	Shikra <i>Accipiter badius</i>
Little egret <i>Egretta garzetta</i>	Shrike brown <i>Lanius cristatus</i>
Munia white- rumped <i>Lonchura straita</i>	Shrike grey-backed <i>Lanius tephronotus</i>
Munia spotted, <i>Lonchura punctulate</i>	Shrike long-tailed, <i>Lanius schach</i>
Myna bank <i>Acridotheres ginginianus</i>	Spotted dove, <i>Spilopelia chinensis</i>
Myna brahminy <i>Sternia pagodarum</i>	Spotted owlet <i>Athena brama</i>
Myna common <i>Acridotheres tistis</i>	Sunbird crimson red <i>Aethopyga siparaja</i>
Myna jungle <i>Acridotheres fuscus</i>	Sunbird purple <i>Nectarinia asiatica</i>
Myna pied <i>Sturnus contra</i>	Sunbird purple-rumped, <i>Leptocoma zeylonica</i>
Myna grey headed <i>Sturnia malabarica</i>	Tailor bird, <i>Orthotomus sutorius</i>
Night heron <i>Nycticorax nycticorax</i>	Treepie rufous <i>Dendrocitta vagabunda</i>
Oriental magpai robin <i>Copsychus saularis</i>	Water cock <i>Gallicrex cinerea</i>
Oriental white eye <i>Zosterops palpebrosus</i>	Weaver bird <i>Ploceus philippinus</i>
Paddy field pipit <i>Anthus rufulus</i>	<i>White- breasted water hen Amauronis phoenicurus</i>
Painted stork <i>Mycteria leucocephala</i>	White eye indian <i>Zosterops palpebrosus palpebrosus</i>
Parakeet Alaxandrine <i>Psitacula euptria</i>	White wagtail, <i>Motacilla alba</i>
Parakeet red-breasted <i>Psitacula alexandri</i>	Yellow footed green pigeon <i>Treron phoenicopterus</i>

Survey of AAU, Jorhat campus and compilation: Dr, Prabal Saikia, Chief Scientist, RARS, North Lakhimpur

Eco-friendly environment



Painted Jezebel *Delias hyperete*



Happiness is a butterfly, which when pursued, is always just beyond your grasp, but which, if you will sit down quietly, may alight upon you.

-Nathaniel Hawthorne



Scarlet Mormon
Papilio rumanzovia



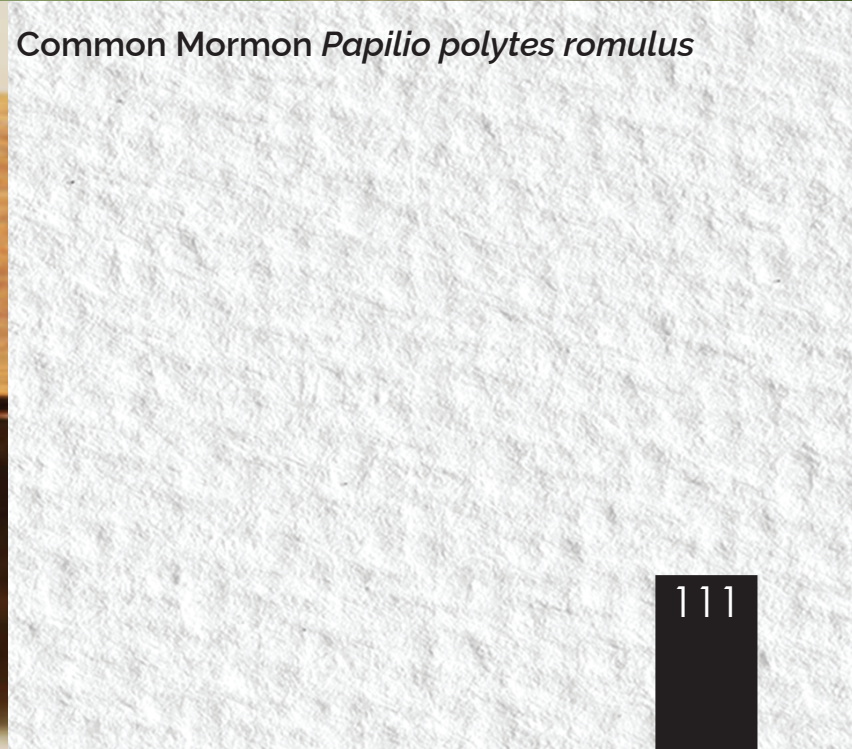
Common Mormon
Papilio polytes stichius



Blue Mormon *Papilio polymnestor*



Common Mormon *Papilio polytes romulus*





Common crow *Euploea core*



Grey pansy *Junonia atlites*

Ramble near AAU guest house



Grey pansy *Junonia atlites*



Striped Albatross *Appias libythea*



Lime Butterfly
Papilio demoleus demoleus



White orange tip
Ixias marianne



Blue oak leaf
Kallima inachus inachus



Yellow-tailed oriole *Icterus mesomelas*



White orange tip
Ixias marianne

Wild is beautiful



Greater one- horned rhinoceros



Rhinos play a critical role in maintaining the health of habitats. Grassland habitat with water bodies in which they wallow, make the conditions suitable for small herbivores. Rhinos also disperse the seeds of plants and fruit they've eaten through their dung.



Indian rhinoceros was the first rhino to be seen in Europe, a single individual shipped to Lisbon in 1515, immortalized in a woodcut by Albrecht Durer.



Indian elephant *Elephas maximus*



Every elephant is distinct. Their facial features, personality, ability to reproduce, tendency to disperse, propensity to raid crops, are different.

An Assam Forest Department – WCS India initiative 'Know Your Elephants' seeks to create a photographic database of individual elephants in Kaziranga National Park (2018)



Indian hog deer *Axis porcinus*

The range of beautiful gentle deer species
thrill nature lovers, poets, photographers, and wildlife enthusiasts too





The place where the temple is located was once the habitat of a peculiar bird locally known as *Negheri*. From this name the place has come to be known as Negheriting. The temple is the house of the rhesus monkeys.



Rhesus macaque
Macaca mullatta



Indian mongoose
Urva edwardsii



About 42 species of reptiles have been reported from the Kaziranga National Park.
The King cobra *Ophiophagus hannah* is one of them



Rivers never go reverse. So try to live like a river. Forget your past and focus on your future-Anonymous



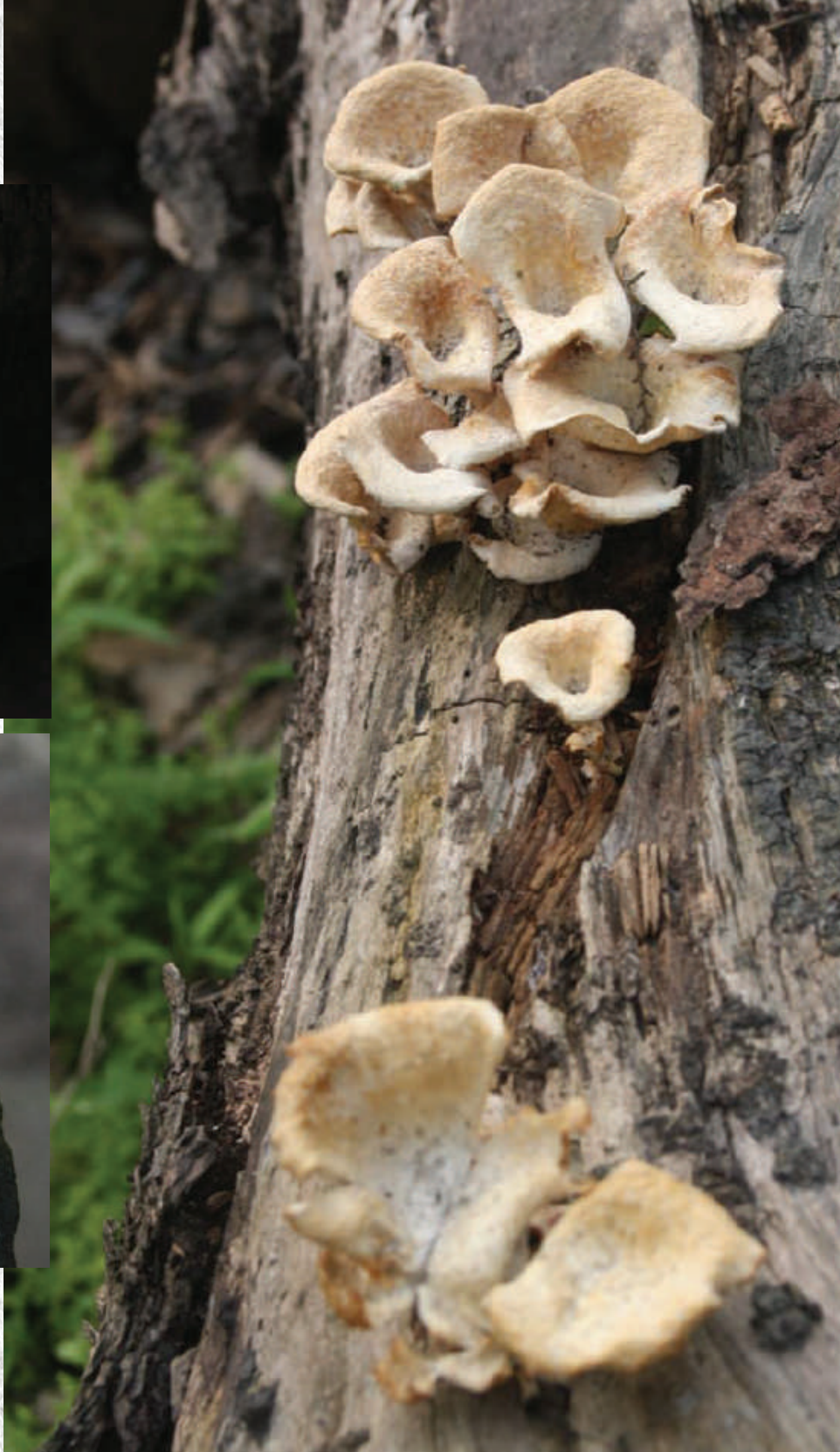
It's a new dawn
It's a new day
It's a new life For us



We are always looking to the future;
the present does not satisfy us-
Our ideal, whatever it may be, lies
further on

The future depends on what we do in
the present

Mahatma Gandhi





If you are in a beautiful place where you can enjoy the
sunrise and sunset, then you are living like a lord
- Nathan Phillips



“So lovely is the loneliness of untouched water bodies”



"Nature is a gift for the soul.
Time in nature soothes my soul's lovely wild."
-Angie Weiland-Crosby

Acknowledgement

The DBT, Gol for funding

Photography

Professor Bidyut K Sarmah and Dr. Mukund V Deshpande

Poem

Professor Arup Kumar Sarma

Department of Civil Engineering

IIT, Guwahati

Field notes

MVDeshpande, Vandana Ghormade

Trees

Dr. Kalyan Pathak

Professor and Head

Department of Agronomy

Assam Agricultural University

Jorhat-785013

Birds

Survey of AAU, Jorhat campus

Dr, Prabal Saikia, Chief Scientist, RARS, North Lakhimpur

Sketch

Dr. Vandana Ghormade

Agharkar Research Institute, Pune-411004





Bibliography

Dravyagunvigyan- Anmol Prakashan, Pune,1996

Flora and Fauna of Amity University, Gurgaon (eds. Deshpande M.V. and Ghormade V)
Published by Amity University, Gurgaon (2018)

https://commons.wikimedia.org/wiki/Butterflies_of_Assam

<https://www.kaziranga-national-park.com/>

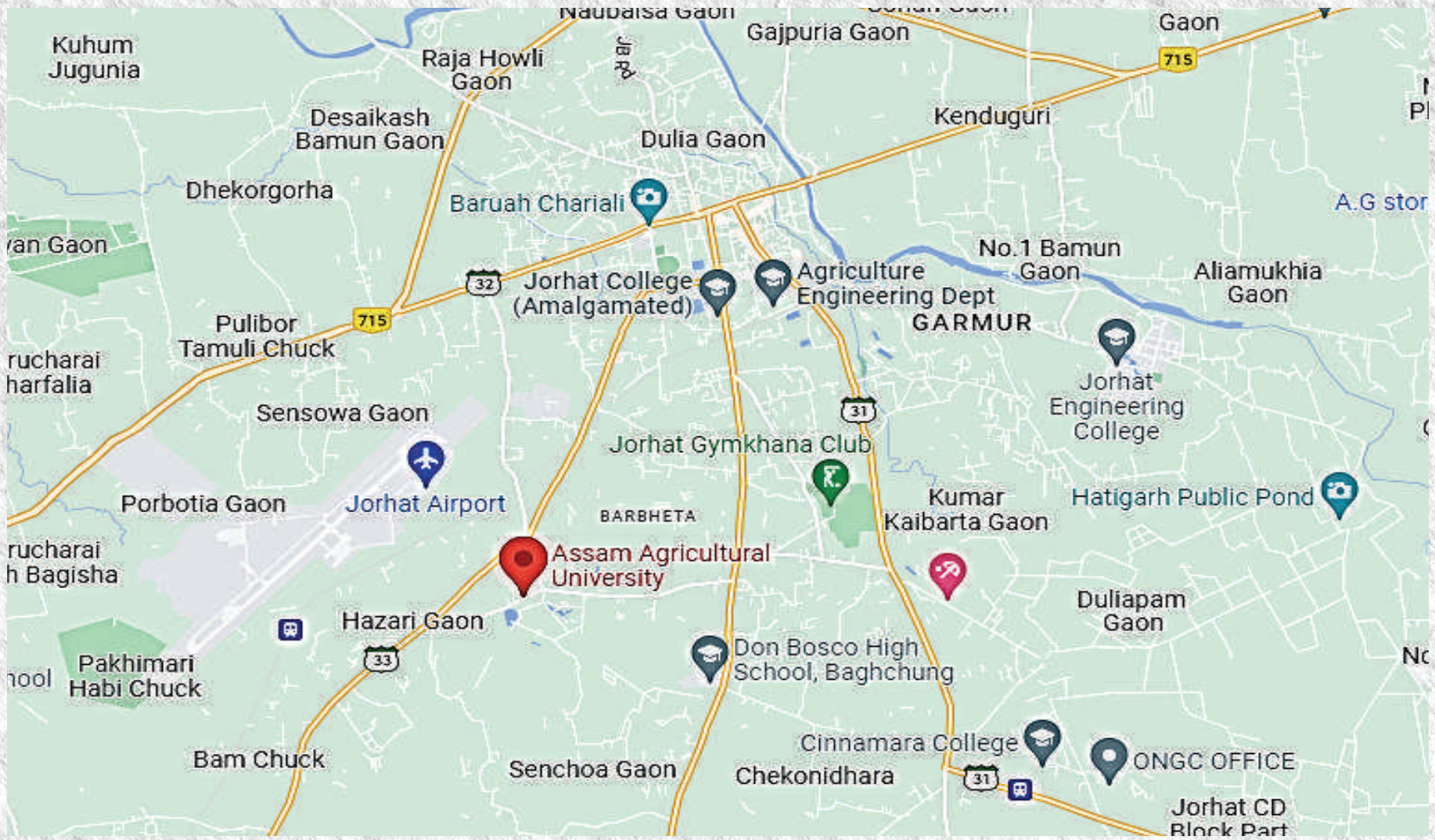
<https://www.kaziranganationalpark-india.com/orchid-national-park.html>

Indian Medicinal Plants, Vol.1-5 (Arya Vaidya Sala, Kottakkaal, Orient Longman Ltd., Chennai)

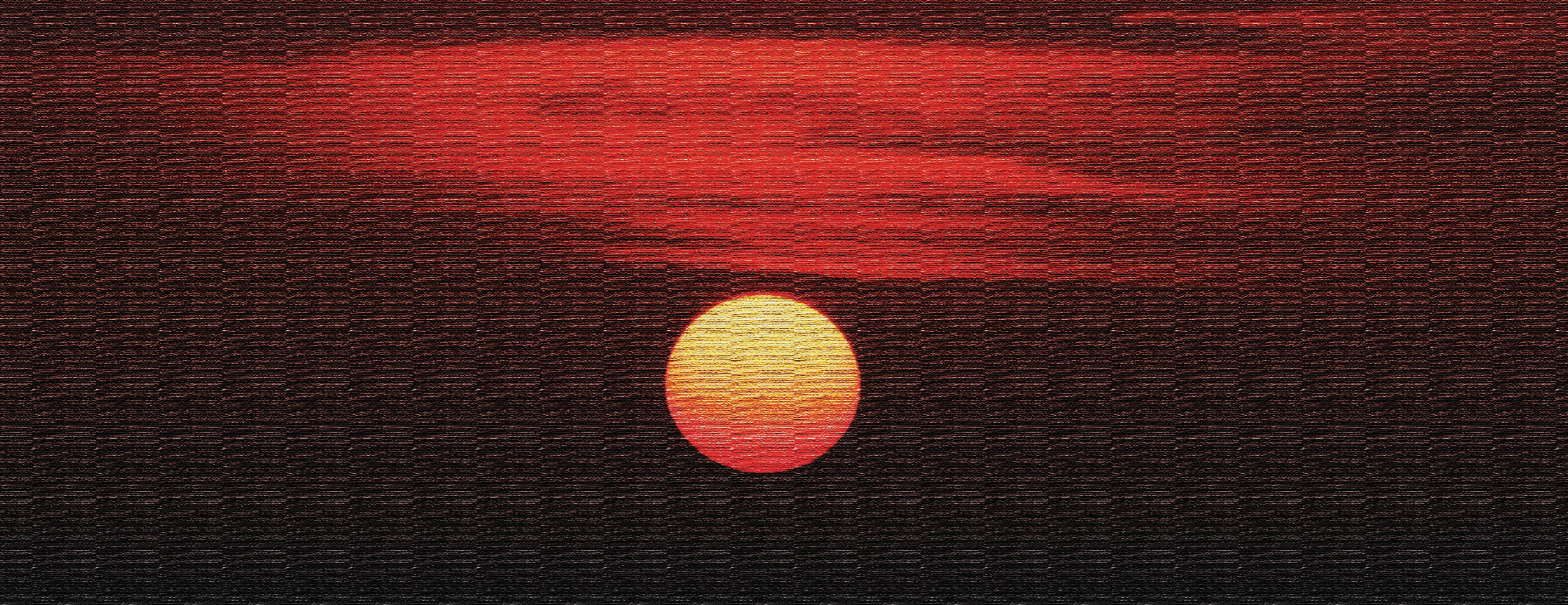
National Chemical Laboratory celebrated Golden Jubilee in 1999-2000. A book Flora and fauna of NCL (eds. Deshpande M.V. and Ghormade V.) published by NCL, Pune (2000). The second edition -December 2000.

National Chemical Laboratory celebrated Diamond Jubilee in 2009-2010. A book Flora and fauna of NCL (eds. Deshpande M.V. and Ghormade V.) Published by NCL, Pune (2010).

Subhashitratnabhandagaram- Edited by Narayan Ram Acharya (Chaukhamba Sanskrit Series, Varanasi) 1998



The latitude and longitude of AAU, Jorhat are 26°44'N, 94°10'E





*"Clouds come floating into my life, no longer to carry rain or usher storm,
but to add color to my sunset sky." - Rabindranath Tagore*