



VERDANT

February, 2026

Second Edition

Departmental annual e-magazine

**The
Walking
Dead**

By Arnav Baruah

Department of Botany

ARYA VIDYAPEETH COLLEGE (AUTONOMOUS)

GUWAHATI-781016

Debarshi Sarma

Service Period

From 1962

To 1995



In Loving Memory
of

PROF. PANKAJ KUMAR DUTTA

*Our sincere tribute
and
profound gratitude
to the founder of the
Department of Botany,
Arya Vidyapeeth College (Autonomous),
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Cover Page Artwork

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Acknowledgement



We begin by expressing our profound gratitude to the Almighty for the blessings that led to the successful completion of this e-magazine.

We extend our sincere appreciation to our esteemed Principal, Dr Pradip Kumar Bhattacharyya, for his steadfast support and encouragement.

We are deeply indebted to our Head of Department and Advisor, Dr Nabin Saikia; our Teacher-in-Charge, Dr Jahnabi Gogoi; and the entire faculty of the Department of Botany for their invaluable guidance and unwavering support throughout this endeavour.

We thank Dr. Bhupali Sharma, Convenor of the Computer Cell, for facilitating the necessary computer resources, and the Department of Mathematics for their cooperation and support in coordinating the Computer Laboratory schedule and for consistently accommodating our requests, despite their own academic engagements.

We express our heartfelt gratitude to our families and friends for their constant encouragement and understanding during the development of this publication.

Finally, we commend all the writers and contributors for their exceptional creative works, which have significantly enriched this edition.

Editorial Board
Verdant e-magazine
Department of Botany
Arya Vidyapeeth College (Autonomous),
Guwahati-16



Message from the Principal



It gives me immense pleasure to learn that the Department of Botany, Arya Vidyapeeth College (Autonomous), is ready to launch the second edition of its e-magazine. At a time when digital platforms are becoming the primary medium for sharing knowledge, this is indeed a commendable and forward-thinking initiative.

The study of Botany is more relevant today than ever before. As we face global challenges like climate change and biodiversity loss, it is the students of plant sciences who hold the key to a sustainable future. An e-magazine like this serves as a wonderful bridge between academic learning and creative expression. It provides our students and faculty with a unique space to document their research, share field experiences, and express their thoughts on the natural world that surrounds us.

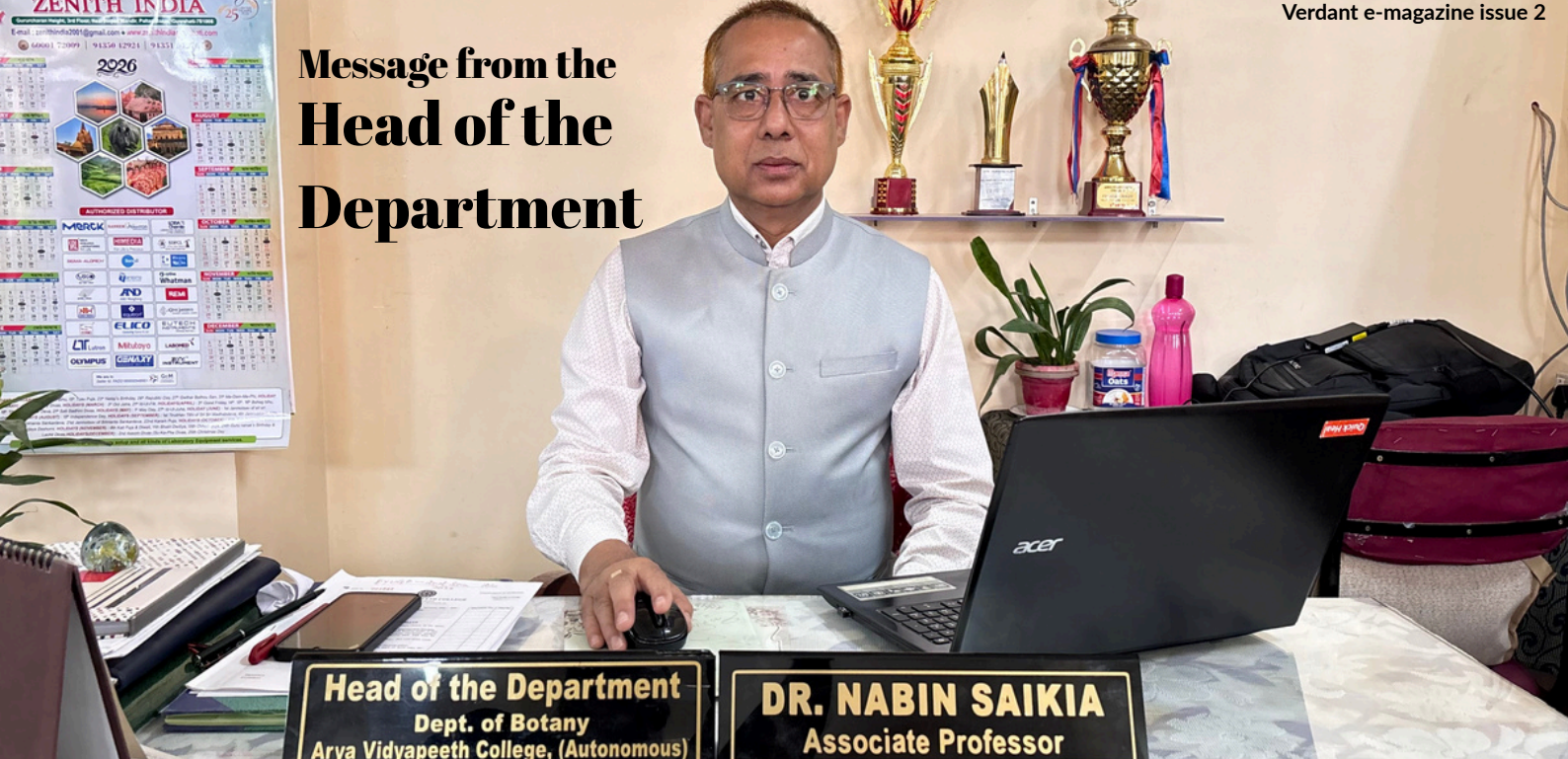
I am confident that this publication will reflect the high intellectual standards of the department and ignite a spark of scientific curiosity among its readers. I especially appreciate the efforts of the Editorial Board and the students for their dedication in bringing this digital volume to life despite their busy academic schedules.

I extend my heartiest congratulations and best wishes to the Head of the Department, the faculty members, and the students for this successful publication. May this e-magazine continue to grow as a vibrant voice for the "green heritage" of our institution. Warm regards and best wishes,

Dr. Pradeep Kr. Bhattacharyya
Principal
Arya Vidyapeeth College (Autonomous),
Guwahati-16



Message from the Head of the Department



On behalf of the department, I am delighted to be able to celebrate the publication of Verdant 2.0. This second edition of Verdant is a brilliant showcase of our collective intellectual curiosity and creative spirit as students of the Department. It is one thing to launch a project, but quite another to sustain it at such high standards of excellence. This issue captures the growth and evolving perspectives that define our aims and objectives.

It also reflects the powerful synergy of technical expertise and a deep commitment to narrative.

Congratulations to the Editorial Board and the Teacher In-charge Dr. Jahnabi Gogoi, and the contributors for your dedication to fostering this vibrant platform for exchange.

Once again, I highly recommend everyone take a moment to explore the new edition.

Dr. Nabin Saikia
Associate Professor and HoD
Department of Botany
Arya Vidyapeeth College (Autonomous)
Gopinath Nagar, Guwahati - 16



Message from the Teacher-in-charge



It is with great pleasure that I present the second edition of Verdant, the e-magazine of the Department of Botany. This publication serves as a creative and academic platform reflecting the scientific curiosity, critical thinking, and creative expression of our students.

The editorial board's journey began with a structured selection process in which interested students were required to submit a Statement of Purpose (SOP) and a sample write-up via formal email. For many students, this was their first exposure to professional academic communication. They learned the fundamentals of formal email writing, document submission, and digital etiquette even before being selected for the editorial team, marking the start of their experiential learning.

Over a period of more than two months, the editorial team dedicated countless hours to conceptualization, content collection, editing, design, and coordination. Throughout this period, the editorial board demonstrated remarkable initiative by independently acquiring the digital competencies required for e-publishing. Students self-learned content curation, layout designing, spreadsheet management, digital communication, photography, and the use of design tools such as Canva. Managing this project alongside regular academic schedules, assignments, and examinations required strong time management, discipline, and perseverance. Their transformation from beginners in digital media to creators of a professionally designed e-magazine is highly commendable.

The collaborative nature of the project also allowed students to experience real team dynamics. Differences in opinions and perspectives emerged during the editorial process, which provided opportunities to develop communication skills, mutual respect, and conflict resolution strategies. Through dialogue and collective decision-making, the team learned the importance of collaboration, empathy, and professional maturity, skills essential for their academic and future professional careers.

I extend my sincere appreciation to all the contributors, students, faculty members, and well-wishers whose scholarly and creative contributions have enriched this edition. Their participation has added diversity, depth, and academic vibrancy to the magazine.

I congratulate the editorial board for their dedication and hard work and commend their ability to balance academic responsibilities with this demanding creative endeavour. I also thank the Principal, Head of the Department, and faculty members for their continuous support in nurturing such student-led initiatives.

I hope that Verdant will continue to flourish as a platform for scientific inquiry, creativity, and interdisciplinary learning, inspiring students to explore and appreciate the fascinating world of plant sciences.

Dr. Jahnabi Gogoi
Assistant Professor
Department of Botany
Arya Vidyapeeth College (Autonomous),
Guwahati-16





Message from the Editor-in-chief

Greetings readers,

We live in an era of astonishing progress in science, technology, economics and knowledge that has been passed down for generations to come. With the same spirit of growth and curiosity, we are thrilled to present to you all the second edition of our departmental e-magazine 'VERDANT'. VERDANT embraces all aspects of life. In this edition, we bring together a vibrant collection of articles, stories, poems, fun facts, quizzes, artworks and photographs. While our roots lie in the world of plants, this edition of VERDANT goes beyond greenery. It explores how nature connects us, nurtures us, and reminds us of our shared humanity.

Through these pages, we hope you find moments of reflection, joy, and discovery. May this edition encourage you to view nature not just as something around us, but as an element that brings us together.

I would like to express my heartfelt gratitude to all the contributors who have supported this publication with their valuable writings and efforts. Special thanks to the editorial board and advisory members for their guidance and dedication in bringing this issue to completion. I hope this issue will help the readers to view our surroundings in different ways. I look forward to the successful continuation of the publication of VERDANT in the upcoming years. Here we proudly present the second edition of 'VERDANT' to you all.

Happy reading!



Drishti Priya Bharadwaz
Editor-in-chief
 On behalf of the Editorial Board
VERDANT e-magazine 2nd Edition
 Department of Botany,
Arya Vidyapeeth College (Autonomous),
Guwahati-16

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Author

Nazar Roy

কস্মিতা মানসি দাস

Dr. Deepika Devi

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Samrat Bora

সত্য নাথ দলে

ড. অজয় কুমাৰ দাস

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STUDENTS' SECTION



THE PENNED HOUSE

ARTICLES

Some Latest Discoveries Of Medicinal Plant Species All Over India

India is one of the world's richest countries in plant diversity because of its wide range of landscapes and climates. Regions such as the Western Ghats, Eastern Himalayas, Northeast India, and the Indo-Gangetic plains together support nearly 8% of the world's plant biodiversity. For thousands of years, many of these plants have been closely linked with traditional systems of medicine like Ayurveda, Siddha, Unani, and various folk healing practices followed by local communities.

In recent years, botanical exploration across India has intensified. Institutions like the Botanical Survey of India (BSI), National Botanical Research Institute (NBRI), Indian Institute of Horticultural Research (IIHR), ICAR-NBPGR, and several universities all over India now report the discovery of about 300–600 new plant species every year. Notably, many of these discoveries belong to plant groups already known for their medicinal value, highlighting their potential for future herbal and pharmaceutical applications. Let's explore some latest discoveries of plant species (mainly between 2020 to 2025), with high medicinal importance, from different biodiversity hotspots in India.



Debarshi Sarma
FYUGP 6th Semester
Roll no.: 751752310891

Himalayan Lousewort:

- Scientific name: *Pedicularis rajeshiana*
- Family: Orobanchaceae
- Region: Western Himalayas, specifically Rohtang Pass, Himachal Pradesh (at elevations around 4,390 meters).



Source:

https://phytotaxa.mapress.com/public/journals/2/submission_53290_76128_coverImage_en_US.jpg

The Lousewort species is a tiny, grass-like wildflower with its remarkable evolutionary traits: it features deeply fringed petals and stamens attached at three different heights inside the flower tube.

Moreover, some specimens were found with "twin" flower hoods, a rare adaptation likely designed to improve pollination. While it resembles its Himalayan cousins, its

microscopic bicolpate pollen and miniature size confirm it is a distinct species. This discovery highlights the incredible, specialised biodiversity thriving in India's high-altitude ecosystems. (Garg, 2025)

Pedicularis rajeshiana and other *Pedicularis* species are valued in traditional medicine for muscle relaxation, relief of body pain (analgesic), treating inflammation, and calming effects, used to cure fevers, rheumatism, general weakness, and digestive issues. It contains compounds with antioxidant, antidiabetic, antibacterial, and hepatoprotective properties.

Lodhra Tree:

- Scientific name: *Symplocos mohananii*
- Family: Symplocaceae
- Region: Ponmudi Hills, Western Ghats, India.



Source:

https://media.newindianexpress.com/TNIE%2Fimport%2F2021%2F11%2F13%2Foriginal%2FNew_plant.jpg?w=768&auto=format%2Ccompress&fit=max

The *Symplocos mohananii* is an evergreen tree from India's Western Ghats, reaching up to 15.5 meters tall, distinguished by its distinctive 9-12 corolla lobes in two whorls, pubescent style, and shallowly serrated leaves

with other features like its ovate-elliptic shape, acute apex, and white, fragrant flowers being key identifiers, all contributing to its distinction within *Symplocos* sect. *Lodhra*.

Traditionally, the bark of *Symplocos* species has been widely used in folk medicine for treating skin diseases, healing wounds, and managing various gynaecological disorders. Tribal and local communities apply bark extracts or pastes to cure skin infections, rashes, and sores, showing their importance in traditional healthcare systems. In addition to medicinal uses, *Symplocos* bark is also used as a natural dye because of its rich chemical content. The presence of tannins and phenolic compounds in the bark gives it antimicrobial and astringent properties. These compounds help prevent infections, reduce inflammation, and promote faster wound healing, highlighting their dermatological importance. (Jeyamary, et al., 2021)

Indian Gentian Tree:

- Scientific name: *Gentiana sasidharanii*
- Family: Gentianaceae.
- Region: Endemic to the Western Ghats of Kerala, India, found in high-altitude areas.

Gentiana sasidharanii is a newly identified plant from the Western Ghats of India. It is a simple, upright herb with unbranched stems and broad, slightly serrated leaves. The plant stands out because of its bright blue flowers borne on short stalks. Special flower features, such as pointed calyx and corolla lobes and thickened stamens, make it different from other *Gentiana* species and reflect the rich biodiversity of the Western Ghats. (Prabhukumar, et al., 2020)



Source:

<https://efloraofindia.com/efi/gentiana/>

Gentiana species are well known for their medicinal importance in traditional systems of medicine. They are commonly used to treat liver disorders and to improve digestion. These plants also help stimulate appetite and support overall digestive health.

Peucedanum species:

- Scientific name: *Peucedanum pradeepianum*
- Family: Apiaceae
- Region: Western Ghats mountain range in India, specifically found in Kerala, India.



Source: <https://efloraofindia.com/wp-content/uploads/2020/10/Peucedanum%20anamallayense.jpg>

Peucedanum pradeepianum is a perennial herb endemic to the Western Ghats of Kerala, India, belonging to the Apiaceae family. The plant is easily distinguished by its deeply serrated leaflets, and it bears compound umbels as inflorescences, a common feature of the genus. The bracts at the base of the main umbel are broadly ovate, while the bracteoles of the smaller umbels are ovate-lanceolate with an acute tip. The fruits are dorsally compressed schizocarps containing 3–4 lateral oil tubes and 4 commissural oil tubes, which are important diagnostic characters. (Prabhukumar, et al., 2020)

Plants of this genus are commonly used to treat respiratory problems, such as cough, asthma, and bronchitis. They are also used for digestive disorders like indigestion, diarrhoea, and abdominal pain. The genus is known for relieving inflammation, rheumatism, headaches, fever, and heart-related issues. These benefits are mainly due to coumarins, flavonoids, phenolics, and essential oils reported from related species. However, specific scientific studies on *P. pradeepianum* are still limited and need further research.

Thekera species:

- Scientific name: *Garcinia kusumae*
- Family: Clusiaceae
- Region: Baksa district of Assam, Northeast India, within the Indo-Burma biodiversity hotspot.



Source:

http://drishtias.com/images/uploads/1751624254_Garcinia_kusumae.webp

Garcinia kusumae is a recently discovered evergreen tree species, which is locally called as 'Thekera' in Assamese. It is a dioecious species and can grow up to about 18m tall. The tree has a thick, leafy crown and slender, slightly four-angled branchlets that bear clusters of flowers. Flowers are produced both at the leaf axils and at the tips of branches, usually with around 15 male flowers in each cluster. The leaves vary in size and shape. The male flowers have stamens fused into a single central bundle with four-theous anthers, and the fruits produce a blackish resinous exudation.

Garcinia kusumae is traditionally valued for its medicinal uses among local communities. The sun-dried fruit pulp is commonly prepared

as a sherbet with salt and sugar to cool the body, prevent dehydration, and relieve heat stroke. It is also used in folk medicine as a remedy for diabetes and dysentery. The sour and sweet seed aril is eaten raw with condiments and is believed to help improve digestion. Overall, the plant plays an important role in traditional health practices.

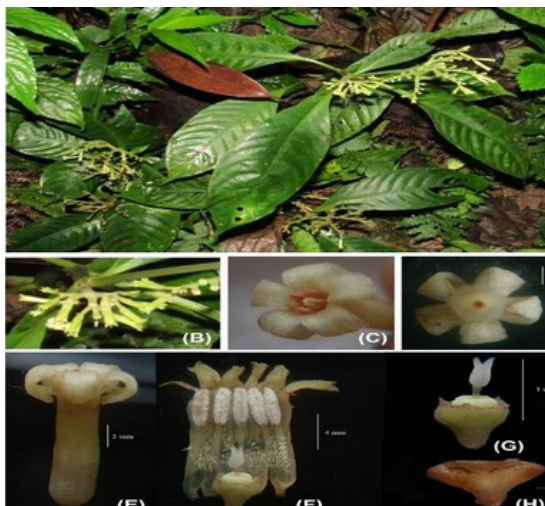
Recurved-petal Ophiorrhiza:

- Scientific name: *Ophiorrhiza recurvipetala*
- Family: Rubiaceae
- Region: Dima Hasao district of Assam, India, particularly around Haflong and Jatinga.

Ophiorrhiza recurvipetala is a small perennial herb native to Assam, India, with neatly branched, smooth stems and attractive ovate-elliptic leaves that taper at the base and end in a long, pointed tip. It produces delicate flower clusters at the tips and leaf axils, carried on slender stalks. The creamy-white flowers are especially distinctive, with a hairy inner tube and sharply curved, hairy petals. Its softly hairy fruit further helps set it apart from related species. (Bhuyan,et al., 2021)

The *Ophiorrhiza* species is an important medicinal plant because it contains camptothecin, a natural compound that is widely used in cancer treatment. This compound helps slow or stop the growth of cancer cells and is the basis for well-known anti-cancer drugs like irinotecan and topotecan. Like other species of *Ophiorrhiza*, it

STUDENTS' SECTION



Source:

https://www.researchgate.net/publication/350126075_Ophiorrhiza_recurvipetala_Rubiaceae_sp_nov_from_Assam_India

may also help reduce inflammation and pain. In traditional practices, related species are commonly used to treat snakebites, skin infections, digestive troubles, fever, and general body aches.

Recent discoveries of medicinal plants across India highlight the country's rich natural wealth and its deep roots in traditional healing practices. Many of these newly identified species come from biodiversity hotspots like the Western Ghats, the Eastern Himalayas, and Northeast India regions known for their unique climates and rich plant life. These areas continue to offer plants with strong medicinal promise. Interestingly, several new species belong to plant groups already known for healing properties such as reducing inflammation, fighting cancer, managing diabetes, and protecting the liver. This points to their potential role in future healthcare and natural drug development.

However, turning this potential into real benefits requires careful scientific study. Detailed laboratory research and clinical testing are needed to confirm the safety and effectiveness of these plants. At the same time, many of them face serious threats from deforestation, climate change, and habitat loss. Without proper protection, some species may vanish before their value is fully understood. Conserving these plants through habitat protection, seed banks, and sustainable use is essential. These discoveries remind us that protecting biodiversity also protects traditional knowledge and future medical possibilities.

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STUDENT'S SECTION

Why Botany? A BSc. Student's Perspective On The Engine Of Life

Botany is not just about identifying pretty flowers; it is the study of the foundational machinery of life on Earth. From a student's perspective, here is why choosing botany is one of the most fascinating and strategically relevant academic paths one can take in the 21st century.

Beyond the Leaf: The Rigorous Curriculum

It's a myth that botany is the "easy" biology track-just sketches and Latin names-far from it. A BSc in Botany is a demanding trek through hard science, demanding interdisciplinary command. We don't merely glance at a plant; we dismantle it, piece by piece.

Plant Physiology and Biochemistry

The engine room of our study. Here we untangle the tangled webs of C_3 , C_4 , and CAM photosynthesis, dissecting the precise chemical choreography that turns photons into sugar. We plunge into enzymology, nitrogen fixation, and the subtle hormonal whispers that cue a blossom, a bend toward light, or a defensive surge against attackers.



Madhurjya Prasad Dutta
FYUGP 6th Semester
Roll No: 751752310899

Genetics and Molecular Biology

Modern botany lives at the molecular frontier. Hours are spent in the lab coaxing DNA from leaf tissue, running PCR gels, and mapping gene expression. We learn to edit plant genomes, a skill that will shape tomorrow's crops.

Microbiology and Pathology

Plants are never solitary. A sizable slice of the curriculum explores the hidden realm of mycorrhizal fungi-nature's auxiliary root network and the ruthless bacteria and viruses that menace global food security. When I tell people I am pursuing a BSc in Botany, the reaction is almost universally predictable. It starts with a polite pause, followed by a slight tilt of the head, and finally the inevitable question: "So...you really like gardening?"

While I certainly appreciate a well-tended garden, reducing botany to gardening is like saying an astrophysicist just enjoys looking at stars through a backyard telescope. My journey as a botany student has revealed a discipline that is vastly more complex, critically important, and intellectually demanding than most people realise.

STUDENTS' SECTION

Ecology and Evolution

We travel deep time, tracing how algae first colonised land and rewrote the planet's atmosphere. We decode the intricate ecosystem dynamics, revealing how plants sculpt the stage on which every other organism performs.



Source:

https://www.freepik.com/premium-ai-image/collection-botanical-leaves-test-tubes-symbolizing-natural-science_334318756.htm

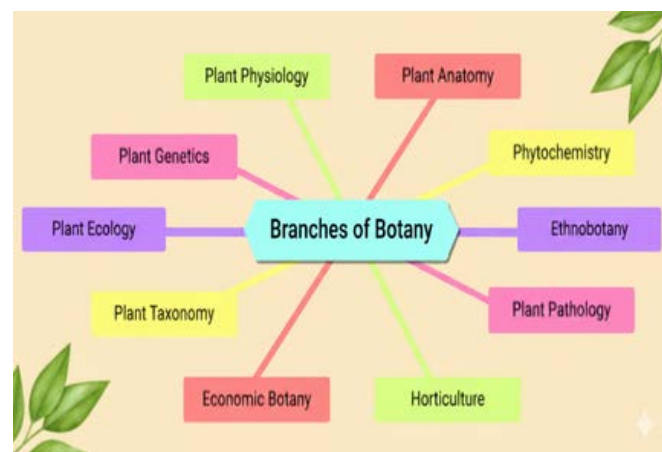
The Unique Advantage: Why Botany Stands Apart

Why choose botany over zoology, microbiology, or just plain biology? For me, botany's got the edge because plants are the original producers in a world full of consumers.

Sure, we can study animal physiology, but those animals get all their energy from plants, one way or another. And you could dive into

atmospheric chemistry, but it's plant respiration that keeps our air the way it is.

Botany pushes us to see the big picture as few other fields do. A biochemist might zero in on one molecule, but a botanist has to get how that molecule works inside a cell, how that cell fits into the whole plant, and how that plant fits into the planet's ecosystem. To be a solid botanist, we need to know a bit about geology (soils), climatology (habitats), physics (how water moves up tall trees), and chemistry (metabolism). That makes us pretty versatile scientists.



Source:

<https://www.careercollegeindia.com/blog/bsc-botany/>

The Scope: A Critical Career Path

The world has three big problems: feeding more people, climate change, and loss of wildlife. Botanists help solve all of them. A graduate can work in many areas:

STUDENTS' SECTION

1. Agriculture and Food Security (The Agronomist):

We must feed 10 billion people by 2050 using less land and water. Botanists breed and edit plants to make them resist drought, heat, and have more nutrients. This is more than farming; it is high-tech survival work.

2. Biotechnology and Pharmacology (The Innovator):

Plants make complex chemicals that we cannot easily make in a lab. Many modern medicines, from aspirin to cancer drugs like Taxol, come from plants. Botanists look for new medicines in forests or engineer plants to make vaccines or biofuels.

3. Environmental Conservation (The Steward):

With climate change speeding up, we need to know which plants will survive and how to fix damaged habitats. Botanists do ecological restoration, assess environmental impacts, and manage protected areas. They also find the best trees for storing carbon in cities to keep them cooler.

Botany Woven into Everyday Life:

Once we study plants, the world stops being a bland green backdrop and turns into a lively, interlocking tapestry.

Every thread of our routine is stitched with botany: the cotton that forms our favourite jeans, the caffeine that jolts our morning brew, the vulcanised rubber that

grips our car's tyres. Swallow a headache pill, we're tapping into millennia-old wisdom from willow bark. Every breath we draw is a gift of photosynthesis's waste product, turned into oxygen.



Source: Google Gemini AI

Knowing botany lets us decode an ingredient list, tracing each additive back to its leafy origin. It alerts us to the danger invasive weeds pose to the native creatures of our neighbourhood park. In short, it grounds us in the tangible, breathing reality of the world around us.

Conclusion:

Botany is the quiet, relentless engine that breathes life into our world. It is a demanding field that calls for imagination, sharp analysis, and an unshakable love for nature.

For me, choosing this BSc wasn't about abandoning modern tech to stare at blossoms. It was about stepping into the science that will shape tomorrow. Whether we're crafting the next super-crop or rescuing a rainforest on the brink, it all begins with truly knowing the plant.

The Fruit That Made Me Human

1.

"God said, "See, I have given you every plant yielding seed that is upon the face of all the earth, and every tree with seed in its fruit; you shall have them for food. And to every beast of the earth, and to every bird of the air, and to everything that creeps on the earth, everything that has the breath of life, I have given every green plant for food." And it was so.

God saw everything that he had made, and indeed, it was very good. And there was evening and there was morning, the sixth day."

-The Book of Genesis

There was another tree in the Garden of Eden-the Tree of Knowledge of Good and Evil. God forbade Adam to eat its fruit, for it would bring death. The craftiest of all animals, the snake, deceived Eve into eating the fruit. It promised her that her eyes would be opened, that she would know good and evil, and that she would become like God.

Tricked by the serpent, Eve and Adam ate the fruit from the tree. Realisation struck them like lightning: they were naked, and shame overwhelmed them. They sewed leaves together and made coverings for themselves. They heard God on His way to the garden for a walk and hid from Him. When God called for Adam because he was nowhere to be seen, Adam said he hid because he was afraid, for they were naked.

God understood that the one clear command He gave had been violated. The innocence of man had been stolen, and now they had become like God, knowing good and evil.



Arnav Baruah
FYUGP 2nd Semester
Roll No: 2532000110

There was another tree, the Tree of Life, the fruit of which gave eternal life and unity with God. To prevent the fallen from living eternally in their broken state and away from Him, God clothed them in garments of skin, allowed them to work and to have children, and banished them from the Garden of Eden.

2.

"Ignorance is bliss."

-Cypher (The MATRIX)

Now, blasphemous as it may seem, I ask you to have an open mind. The fruit that Adam and Eve ate from the Tree of Knowledge was never named. It was only later that the forbidden fruit came to be imagined as an apple, a consequence of translation and cultural evolution.

Here, I want to etch a question into the reader's mind: what if it was never an apple? What if the fruit was, in reality, a fungus? I promise to explain myself, and perhaps I have your attention now.

3.

"What is real? How do you define real? If you're talking about what you can feel, what you can smell, what you can taste and see, then real is simply electrical signals interpreted by your brain."

Now, leaving theology aside for a moment: the use of mushrooms by our ancestors is evident from archaeological ventures, ancient art and carvings, historical accounts, living

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indigenous traditions, and cross-cultural repetition. But I am not concerned with mushrooms as a mere dish served hot on the dinner table. What interests me is the opening of eyes. This brings me to the Stoned Ape Hypothesis by Terence McKenna.

This speculative theory proposes that the consumption of psychedelic mushrooms by early humans may have influenced the evolution of human cognition, particularly language, creativity, and self-awareness, by altering perception and neural activity. Our ancestors, early hominins living in Africa, followed herds of herbivores. Their dung allowed psilocybin-containing mushrooms to grow. Hungry, they consumed not only the animals they hunted but also the mushrooms left behind by the herds.

Brain size increased from roughly 900 to 1600 cc in just 100,000 years, around 2 million years ago. On an evolutionary timescale, this jump appears rapid and unusual. Fire, tool-making, meat consumption, and harbouring shelters, these helped, but McKenna argued that the inexplicable fast evolution of the brain sizes of our ancestors could be explained by their consumption of these psychedelic mushrooms. These mushrooms improve pattern recognition, environmental awareness, reduce habitual prediction, enhance reflexes, improve edge detection, increase sensitivity to contrast, and promote intelligence and consciousness. All these would make our hunting more efficient. That means more food. More food meant better nourishment, which in turn supported larger brain development.

These mushrooms contain psilocybin, which is rapidly metabolised in the liver into psilocin. Psilocin then travels to the brain and binds to serotonin receptors, primarily the 5-HT_{2A} receptor. Though psilocin is not serotonin, it resembles it closely enough to activate the receptor.

Serotonin receptors regulate mood, perception, flexibility, and adaptation by translating chemical signals into psychological experience—shaping the neural self-model we experience as the ego.

The 5-HT_{2A} receptor regulates how rigid or flexible the ego is. This ego is maintained by the Default Mode Network (DMN).

To simplify: **Ego is the feeling** - Hey! It's me. My name. My thoughts. My memories, Bleh! I hate it. Woof! I love it

DMN is the voice in the head that keeps reminding you—So, DMN is the brain network doing most of my inner self-talk when I'm not concentrating on something specific.

4.

"Why" is the only real social power, without it you are powerless

~Merovingian (The MATRIX: reloaded)

Well, what happens when serotonin binds with the serotonin receptor (5-HT_{2A} receptor)?

The DMN is coherent and active, the self-story remains stable, the inner voice continues smoothly, sense of 'me' feels solid and continuous.

Now, what happens when psilocin binds with the receptor?

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Intuitively, one might expect an inflated sense of self, excessive self-importance, conceit, narcissism, me-story becoming obnoxiously loud, beliefs becoming unshakingly stronger, hyper-rational, emotionally devoid, reality solidifies, imagination reduces, creativity ceases, emotional flooding or numbing. Rather, the contrary happens. The DMN quietens, ego dissolves partially or fully, self-boundaries soften, the sense of being a separate observer weakens, experience feels immersive rather than self-referential, enhanced pattern recognition, reality feels less rigidly structured, ordinary things feel important or symbolic, and new neural networks are formed that never communicate. All these aren't fringe claims; MRI scans of the brain prove it.

5.

It means buckle your seat belt, Dorothy, 'cause
Kansas is going bye-bye.

~Cypher (*The MATRIX*)

Now, let's talk about the Good Friday Experiment in 1962. It was a controlled study in which theology students were given psilocybin or a placebo during a religious service to test whether a psychedelic could reliably produce mystical experiences. The placebo group reported nothing out of the ordinary. While The students who received psilocybin described being swept into an experience that felt vast, overwhelming, and utterly unlike ordinary consciousness. Many reported a complete dissolution of the self, as if the

boundary between "I" and the world had vanished, replaced by a powerful sense of unity and presence. Time seemed to collapse, moments felt eternal. Some spoke of encountering an indescribable sacred reality, not as an idea, but as something directly known, intensely real, and emotionally undeniable. The experience carried a feeling of awe, reverence, and deep ecstasy, as if they had briefly touched something ultimate and then been returned. Decades later, participants said the experience never faded in importance; it remained singular, enchanted, and unsurpassable, often described as one of the most meaningful moments of their entire lives, something they knew they might never encounter again.

Seems quite convincing why people in historic times used these mushrooms in religious practices and rituals. The people did need no priests, no promises, no intermediaries, just direct divine contact with a dose of psilocin. Perhaps this is why historic cultures regarded them as sacred. The Aztecs went so far as to call them Teonanacatl—the Flesh of the Gods. And now tell me, does it ring a bell how I drew the connection between fungi and the forbidden fruit of the Tree of Knowledge?

6.

Have you ever had that feeling where you're not
sure if you're awake or still dreaming?

~Neo (*The MATRIX*)

McKenna elaborates the effects into three levels of mushroom experience.

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1. Low Dose – Sensory Enhancement

At this level: Senses become sharper and more vivid, colours appear bright, enhanced vision, motion, and patterns are easier to notice, and attention to the environment increases. McKenna suggested this level could enhance visual sensitivity and pattern recognition, making the world feel clearer and more alive while the ego remains intact.

2. Medium Dose – Emotional & Cognitive Shift

At this level: Strong emotional responses arise, introspection deepens, thought patterns loosen, ego softens but does not disappear. People feel increased empathy, heightened creativity, insight into personal life and relationships. McKenna associated this level with language, symbolic thinking, and social bonding – people shared more, bonded more, and more bonds mean more offspring.

3. High Dose – Ego Dissolution / Mystical Experience

At this level: Sense of self dissolves or disappears, time and space lose meaning, reality feels profoundly altered. Experiences are often described as mystical or transcendent. People report a feeling of unity with everything, encounters with archetypal imagery, and deep spiritual or existential insight. McKenna believed this level revealed non-ordinary states of consciousness

that shaped religion, myth, and philosophy, music becoming language, and language becoming music, abstract thinking and abstract symbolism became innate. The effects may be temporary, sometimes weeks and other times... forever!

7.

Everything that has a beginning has an end.
~The Oracle (The MATRIX)

See! I get it. As fascinating as it is to read about this, and as tempting as it is to dig deeper into its historical subtext, it's time to debunk the hypothesis. The Stoned Age Hypothesis got me captivated, and I hope it did the same. McKenna was right about some things. But the hypothesis itself? It is bogus. Evolution doesn't work that way. The effects of the mushrooms might be permanent in an individual, but do they pass on to the next generations? They don't, and Lamarckism has long been disproved. So, it's safe to say that the human consciousness is not evolved by magic mushrooms. In the individual, however, the magic is undeniable.

Now don't make that sulky face, the hope is not lost. The Aztecs, the Amazonian tribes, and the Mazatec people used psychedelics extensively. They created art, mythology and complex spiritual systems. Ergo, it's safe to say that magic mushrooms may not have led hominins to humans, nor do they promise technological evolution. Yet, researchers do propose a different model of cultural evolution. Music, art,

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religion, rituals, mythology, and social structures formed around shared experiences. The magic is not in the increase of the brain, but in benevolence and inclusivity.

A new Stoned Ape hypothesis emerges, not one of biology, but of culture. Psychedelics didn't evolve the brain; they revealed what the brain could already do. This explains creativity, openness, long-lasting personality changes and why nearly every culture that encountered them considered them sacred.

8.

We can never see past the choices we don't understand.

~The Oracle (The MATRIX)

Now, don't go out of your way to explore magic mushrooms just to get a high. There are accounts of people going insane. What could have been a divine experience, they wake up not in a daze but with nightmares that haunt them for the rest of their lives. Some have had their deepest fears

spring to life, trapped in the world forever, never to open their eyes. Others continue living through the afterimages even after the drug has worn off. A simple takeaway is this: if you've seen a character in a game or a movie hallucinating grotesque visions, understand that such experiences can be first-hand realities, especially if you are not mentally sound. The character may survive their episode of psychosis; you may not. And even if you enter what feels like the realms of God, what you encounter there may be too much for a fragile mind to bear. The experience is not just real, it is unreal, more real than you ever wished it to be. Don't try to chase a high

without working on your lows. Beware of unlearned wisdom - Carl Jung.

9.

Hope, it is the quintessential human delusion, simultaneously the source of your greatest strength and your greatest weakness.

~The Architect (The MATRIX: reloaded)

Extensive studies are being conducted to explore the potential of psychedelics in the medical field. They are no longer regarded solely as drugs of abuse, but as controlled therapeutic tools. Conditions such as depression, anxiety, existential dread, terminal illness-related distress, substance addiction, PTSD, and other trauma-related disorders may be treated with psilocybin. When used in controlled clinical settings, it can serve as a therapeutic aid. However, its use requires careful regulation, ethical oversight, and continued research.

10.

[Temet Nosce] You know what that means?

It's Latin. Means "Know thyself"

~The Oracle (The MATRIX)

Maybe we don't need some magic mushrooms to tap into our consciousness to awaken the good in us, to do better, to love better and to feel more for one another. We can consciously decide to be a little kinder, a pinch more tender, exercise a fraction more understanding before losing it and carry a whole lot of hopelessly hopeful. How about being a reason for someone's smile in life? How about becoming a place where someone can find shelter before they take refuge in things only to satisfy their flesh?

You tell me.

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Not Just Weeds: Valuable Yet Ignored Weeds Of Assam

Assam is well known for its natural beauty and fertile soil. It is deeply connected with nature. Various trees, shrubs and weeds in the surroundings enhance its natural beauty; however, weeds are mostly ignored. When we talk about the important plants of Assam, we often focus on the cultivated crops and famous medicinal trees and shrubs. Meanwhile, we overlooked the weeds growing naturally along the roadside, wetlands, farmlands and village surroundings. Many of them have medicinal properties and prevent soil erosion. Yet, because they are common and uncultivated, we overlook their properties and refer to them as 'just weeds' and, without thinking a second, often remove them in the name of cleanliness. Just like other plants, Assam has a wide variety of weeds as well. Some of them are - *Cynodon dactylon* (Dubori Bon), *Leucas aspera* (Durun Bon), *Mimosa pudica* (Lajuki Lota), *Oxalis corniculata* (Tengesi Tenga) etc.

***Cynodon dactylon* (Dubori Bon) :-**

Classification:

Kingdom - Plantae

Division - Tracheophyta

Class - Liliopsida

Order - Poales

Family - Poaceae

Genus - *Cynodon*

Species - *C. dactylon*



Chandrima Sarma
FYUGP 2nd Semester
Roll No: 2532000365

Cynodon dactylon is one of the most familiar plants we see almost every day, yet we rarely notice it carefully. It is commonly known as Bermuda grass. Bermuda grass is native to Europe, Africa, Australia and much of Asia and has been introduced to the Americas. Though its common name is Bermuda grass, it's not native to Bermuda but is an abundant invasive species there. In Bermuda, it is known as Crabgrass. In India *C. dactylon* has different names in different languages - in Assamese Dubori bon, in Bengali Durva, in Gujrati Drow, in Kannada Garike, in Marathi Harali, in Punjabi Dubda, in Tamil Arugam Pullu etc.

If we talk about the morphological character, *C. dactylon* has grey-green colored, short blades with rough edges. The stems are usually white or green in colour and are erect and slightly flattened. *C. dactylon* has a deep root system. It's small roots emerging from the thin stem-like structure. These roots stick to the ground and the plant spreads throughout the ground.

Widely growing *C. dactylon* is a perennial plant that is often ignored as a common weed but its properties reveal how valuable and resilient this plant is. It has economic and agricultural importance, as it is widely used as a nutritious fodder grass. The grass

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has a strong ability to spread and cover the ground and plays a significant role in preventing soil erosion. Besides these, the weed has great medicinal values also. Bermuda is a good wound healing agent and its paste is good for ulcers. *C. dactylon* helps to control bleeding and treat diarrhoea, conditions of epileptic seizures, some skin diseases, burning sensation and in case of scorpion bite, the fresh juice of Bermuda is given to nullify the effect of poison. Dubori bon is used in religious functions of the Hindu religion, hence it is called as Conch grass.



Fig: *Cynodon dactylon*

Source: www.shutterstock.com

***Leucas aspera* (Durun Bon) :-**

Classification:

Kingdom - Plantae

Division - Tracheophyta

Class - Magnoliopsida

Order - Lamiales

Family - Lamiaceae

Genus - *Leucas*

Species - *L. aspera*

Leucas aspera is commonly known as Thumbai. *L. aspera* is native to Africa, Asia, and temperate and tropical countries. Thumbai is distributed throughout India from the Himalayas down to Ceylon. In India, *L. aspera* has different names in different regions. In Assam, it is known as Durun bon, in Punjab-Guldora, in Maharashtra-Bahuphul, in West Bengal, known as Darunaphula, etc.

Leucas aspera is an annual herb and grows up to the height of 15-60 cm with a quadrangular stem and branches. Leaves of *Leucas aspera* are yellowish green, obtuse or petiolate, and pungent. Flowers of *Leucas aspera* are small, white in colour and directly attached to the base without a peduncle. Auxiliary whorls held all the flowers together. It has tubular shaped calyx with the bottom half looking membranous, and the upper half is ribbed and hispid. Calyx also has a small oblique mouth and short triangular teeth.

Due to its potential medicinal properties, the whole plant is used in traditional medicine to treat various health problems. *Leucas aspera* have antimicrobial, antioxidant, larvicidal, antinociceptive, hepatoprotective, anti-hyperglycemic, anticancer, anti-inflammatory, wound healing and antiulcer activities. Roots, stems, leaves and flowers of *Leucas aspera* are found to have high antibacterial activity against various bacteria. Different extracts of leaves had an anabolic effect and hepatoprotective activity, antidiabetic and anti-venom activity; roots have analgesic activity, aerial parts exhibit ulcer protective

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and anti-arthritic effect and the whole plant has the potential of anthelmintic activity, cytotoxic activity. The plant also has food value and is used during festivals like Vinayaka Chavithi. Lack of awareness of the uses and importance of the plant is treated as underutilised.



Fig: *Leucas aspera*

Source: www.shutterstock.com

***Mimosa pudica* (Lajuki Lota) :-**

Classification :

Kingdom – Plantae

Division – Tracheophyta

Class – Magnoliopsida

Order – Fabales

Family – Mimosideae

Genus – *Mimosa*

Species – *M. pudica*

Mimosa pudica is commonly known as the sensitive plant. The plant has other common names also – action plant, shame plant, touch-me-not plant, sleepy grass, humble plant, etc. In different Indian language it has different names. In Assamese, known as Lajuki lota, in Hindi Laajvanti and Chhui-mui, in Bengali Lajjabati, in Kannada Lajja, in Tamil Tottaladi

etc. *Mimosa pudica* is native to the tropical Americas. It can also be found in Asian countries such as India, Singapore, Bangladesh, Thailand, Nepal, Indonesia, Taiwan, Malaysia, the Philippines, Vietnam, Cambodia, Laos, Japan, and Sri Lanka. It has been introduced to many other regions and is regarded as an invasive species in Tanzania, South and Southeast Asia, and many Pacific islands. It is regarded as invasive in parts of Australia and is a declared weed in the Northern Territory and Western Australia, although not naturalised there. Control is recommended in Queensland. It has also been introduced to Uganda, Ghana, Nigeria, Seychelles, Mauritius and East Asia, but is not regarded as invasive in those places.

M. pudica is a creeping annual or perennial herb. Leaves are distinctive, fern-like, bipinnate, oblong and dark green in colour. Leaflets rapidly fold inward and droop when touched. Stems are slender, often reddish-brown to purplish, branching and covered in small, curved thorns. Flowers are small, pink or purplish, fluffy, ball-shaped clusters arising from leaf axils.

M. pudica is a medicinal weed. In Ayurveda, and has been It has been identified as lajjalu. It possesses antibacterial, antivenom, antifertility, anticonvulsant, antidepressant, aphrodisiac, and various other pharmacological activities. The herb has been used traditionally for ages. According to Ayurveda, the root is bitter, acrid, cooling and alexipharmic.

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It is used in the treatment of biliousness, leprosy, dysentery, vaginal and uterine complaints, inflammations, burning sensation, fatigue, asthma, leucoderma, blood diseases, etc. According to the Unani system of medicine, the root is resolvent, alternative, useful in diseases arising from blood impurities and bile, bilious fevers, piles, jaundice, leprosy, etc. The root is used to control alcoholism.

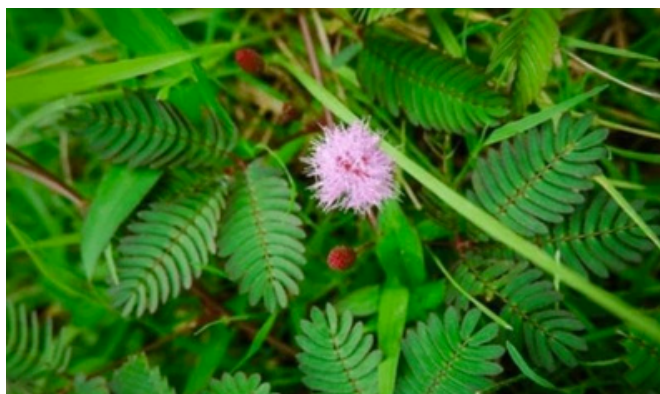


Fig: *Mimosa pudica*

Source: www.shutterstock.com

***Oxalis corniculata* (Tengesi Tenga) :-**

Classification:

Kingdom – Plantae

Division – Magnoliophyta

Class – Magnoliopsida

Order – Oxalidales

Family – Oxalidaceae

Genus – *Oxalis*

Species – *O. corniculata*

Oxalis corniculata is commonly known as Creeping Woodsorrel. In Assamese, it is called as Tengesi Tenga. There are some other names also of *O. corniculata* – Shuklika (Sanskrit), Ambotikura (Telugu), Amrul Shak (Bengali), Khatari (Hindi), Puliakire (Tamil), Bhinsarpati (Marathi), etc. It is native to Southeast Asia. It

is widely distributed in roadside, yards, gardens, parks, human settled areas and nearly all warmer parts of India, and it grows up to a height of 2500 m in the Himalayas. Throughout the temperate and tropical regions of the West Indies, South, Central and North America it is found widely.

O. corniculata is bushy in nature. The top portion of the plants is weakly smooth or bushy. They are branching from the bottom and rooted at the nodes. The leaves of the plants are trifoliate, thin and heart-shaped. The leaflets have a distinct apical indentation. Along the stem, the leaves are arranged alternately, and the leaflets have reticulate venation. The stem of the plant is slender in shape and covered with soft, short hairs. The internodes are 5 to 9 cm in length. It is sour in taste and smells acidic. The flowers are 6-12 mm wide and have 5 yellow petals. Fruits are a capsule, 1-1.5 cm long, cylindrical, pointed and ridged. Also, the seeds are oval in outline, rounded, basally pointed, flattened, light brown and have a surface distinctly ridged. It has stolons also.

O. corniculata is a medicinal perennial herb. It has been used in different systems of traditional medicine for the treatment of diseases and ailments of human beings. *O. corniculata* has a diverse range of ethnomedicinal uses. It is used for liver and digestive problems in the village of Nepal. To cure a headache, the leaf paste is applied over the forehead. Crushed leaves are used to stop bleeding from cuts. The Boro tribals of Assam use the juice of the plant as an eye

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drop for healing conjunctivitis, for digestion and diarrhoea. Boiled plant parts are used with butter milk. It is also a good appetiser. *O. corniculata* heals the skin diseases such as warts, corns and swelling. In case of snake bite, Zairian people make a salted mixture paste of the plant with *Aframomum saguineum* and cover the whole bite area. It is also used for anti-venom purposes. As a home remedy for insomnia, the leaf extract of the plant is mixed with castor oil and taken for good sleep. *Oxalis corniculata* possesses various important pharmacological activities like antioxidant, anti-cancer, anthelmintic, anti-inflammatory, antimicrobial, astringent, diuretic, febrifuge, cardio-relaxant and stomachic properties.



Fig: *Oxalis corniculata*

Source: Greenway Weed Solutions

In the end, the weeds we often ignore are not always wild. Most of them are medicinal and an important part of Assam's natural beauty. They support ecological balance and carry traditional values. By realising their importance, we can save our biodiversity.

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Chromolaena odorata: The Invasive Weed Shaping Ecosystems Worldwide



Hrishikesh Barman
FYUGP 4th Semester
Roll No: 24751100556

The *Chromolaena Odorata*, which people also call Siam weed, Christmas bush or bitter bush or Jack in the Bush is a plant. It is a shrub that comes back every year. It is really good at spreading. This plant is originally from Central and South America where it's hot and tropical. Now the *C. odorata* has spread to a lot of other places like Asia, Africa and the islands in the Pacific. The *C. odorata* grows fast and it is very hard to kill. This makes it a big problem for the environment for farming and, for people who live in these areas. This article is about a plant. We will talk about what this plant's like, how it has spread all over the world and how it affects other plants. We will also look at how this plant has moved into the types of land in Assam, India. The plant has characteristics that we want to explore. The global spread of the plant is something we will discuss. The ecological impacts of the plant on other plant species are very important. The plant is moving into the topography of Assam, India and we want to know more about it.

When you look at *C. odorata* for a time it does not look like anything special. *C. odorata* is a shrub that can grow really tall up to 3 meters high. The stems of *C. odorata* are thin. Have tiny hairs on them. The leaves of *C. odorata* are pointy. Have teeth on the edges. They grow opposite each other on the stem of odorata.



Source:

<https://indiabiodiversity.org/species/show/32547>

C. odorata has lots of flowers that are pinkish-purple in colour. These flowers grow in clusters. Bloom all year round when the weather is good. This makes *C. odorata* look pretty nice. It is actually very bad for the environment. This weed has seeds that are very light and they have fluffy things on them that help them blow away in the wind. The weed seeds can travel a long way because of this.. What really makes this weed special is that it can grow again from the stems or roots that are cut. This makes the weed very hard to get rid of once it has started growing in a place. The weed can come back from cut stems or roots, which is why it is so hard to get rid of the weed once it is established.

The story of *C. odorata* spread starts in the Americas. This is where *C. odorata* evolved in places that people had changed, like the sides of roads and the edges of forests.

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C. odorata probably travelled to the continents in the 19th century. This might have happened when seeds that had *odorata* on them were moved by accident. People might have also planted *odorata* on purpose because it looked nice.

By the middle of the century, *C. odorata* had made its way to Southeast Asia, Africa and other places. This happened because of things like trade, farming and people moving to new homes. *C. odorata* was able to spread to all these places. In Asia, this thing was first seen in India in the 1950s. From India, it quickly spread across the whole area. The reason it did well is that it can grow in many different kinds of weather. It can grow in humid places and also in dry areas with less rain. This plant is very good at growing, and it can even stop other plants from growing by releasing special chemicals. The plant can grow quickly, which helps it to outdo the plants that are normally found in these areas. This plant is really good at taking over places.

The thing that is really scary about *C. odorata* is what it does to the plants and animals. It is a weed that spreads fast and takes over everything. *C. odorata* forms groups of itself, and that hurts the plants that are supposed to be there. This makes it so there aren't many different types of plants.

C. odorata also hurts the grass, the bushes, and the trees. It blocks the sunlight. Uses up all the good stuff in the soil. For example, in the fields and in the woods, *C. odorata* does not let the other plants grow back. This makes all the areas start

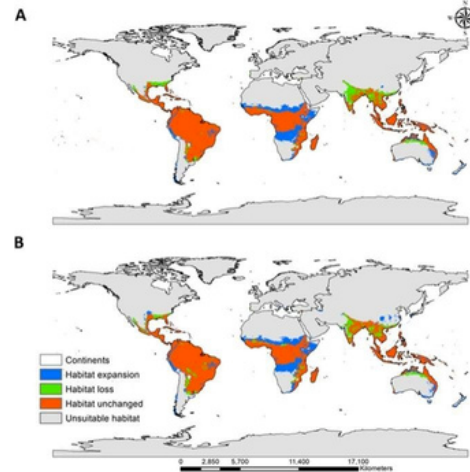


Figure: Changes in habitat suitability for *C. odorata* under the climate change scenarios

Source:- Adhikari, P. et al., (2023). <https://www.nature.com/articles/s41598-023-36358-z>

to look the same. *C. odorata* is really bad for the environment because it changes everything. In Southeast Asia, this weed has taken over an area of land of more than 50 million hectares. It is really bad for the plants that are supposed to be. The animals that live there are also affected because they need these plants to eat and to have a place to live. The weed is also bad for the soil. The way plants are pollinated. This is because the roots of the weed are not very deep, so they do not hold the soil in place well like the plants that are supposed to be there. The weeds' roots are shallow. That is not good for the soil. This is a problem for Southeast Asia and the plants and animals that live there. The *C. odorata* plant is really bad for the environment. But that is not all, the *C. odorata* plant also causes problems for farming and for people's health. The *C. odorata* plants grows in fields where crops are planted which means that crops like rice, maize, and cassava do not grow well. This is because the *C. odorata* plant uses up the

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water, light and food that the crops need.

When animals eat the odorata plant, they can get sick. This is a problem for people who raise animals because it can cost them a lot of money. The *C. odorata* plant is also bad for people. If people touch the *odorata* plant, they can get a rash or have trouble breathing. This happens because the *C. odorata* plant has oils that can hurt people. In some areas, dry biomass from this stuff can catch fire easily and burn very strongly. This makes wildfires even worse. They damage the land even more. The thing is that these wildfires just make it harder for the landscapes to stay healthy. Dry biomass is a problem because it can make fires burn intensely. This is not good for the landscapes at all.

Let us take a look at how *C. odorata* has spread in Assam. Assam is a state in the northeast part of India. It is known for its varied landscape. The landscape of Assam is made up of river valleys, floodplains, hills and forests. The Brahmaputra River and its tributaries have shaped this landscape.



Figure: Map of agro-climatic zones of Assam

Source:

https://www.researchgate.net/figure/Map-of-agro-climatic-zones-of-Assam_fig1_264863646

Assam has a subtropical climate. The state also experiences a lot of floods and human activities that disrupt the environment. This has made Assam a place where *C. odorata* can easily invade. The diversity of Assam's landscape and its climate have contributed to the spread of *C. odorata* in the state. The weed was first seen in Assam back in the 1970s. It probably came from seeds that were carried by floods or people moving from places, like West Bengal. The weed has spread fast all over Assam since then.

The Brahmaputra Valley has plains that are perfect for *Chromolaena* to grow really thick. This weed chokes the riverbanks and the fields where people grow food. *Chromolaena* loves the moist soil in the Brahmaputra Valley. It grows well, competing with rice paddies and the grasses that are supposed to be there.

In the foothills of the Himalayas and the Karbi-Anglong and North Cachar Hills, the land is not flat. There are a lot of areas because of the way the land is. *Chromolaena* can grow well in these areas. It takes over the tea plantations and the bamboo groves, and the forests that have grown back. *Chromolaena* changes what these places look like and the plants that are supposed to be there. The Barak Valley has a problem with a weed that is growing everywhere. This weed is taking over the grasslands and empty lands in the Barak Valley. The soil in the Barak Valley is sandy. It rains a lot during the monsoon season. Because of this weed, the animals that live on the farms do not have food to eat. The weed is also making the soil erode, which is very bad for the land.

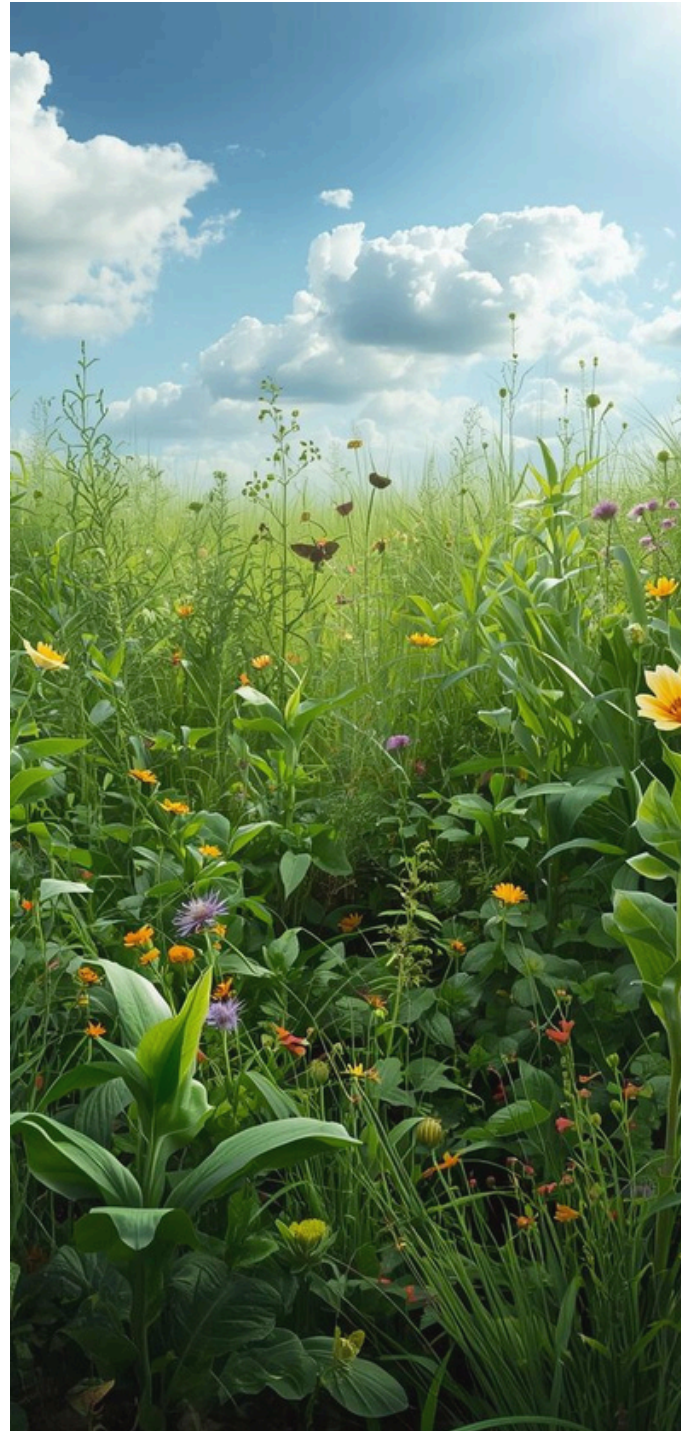
The Barak Valley is not the place that is affected by this weed. The Kaziranga National Park in Assam

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also has problems with the weed. The weed is growing in the grasslands of the Kaziranga National Park. This is a deal because the Kaziranga National Park is home to many animals that are in danger, like the Indian rhinoceros. The Indian rhinoceros is losing its home because of the weed. The weed is a threat to the Indian rhinoceros and other animals that live in the Kaziranga National Park. The problem with this weed in Assam is made worse by things like people cutting down trees, changing the way they farm, and building roads. These things make it easy for the weed to spread. The weather is also changing; it is getting hotter. The rain is coming at different times, which might make the weed spread even faster. People are trying to get rid of the weed in Assam by pulling it out by hand, using bugs like the flea beetle to eat it and working together as a community. But the weed is very strong and can grow back, so people need to keep watching out for it and trying to control it all the time. The weed in Assam is a problem that needs to be dealt with constantly.

So *C. odorata* is not an annoying plant. It is a problem that is affecting the whole world. It is moving into areas and taking over. This is a deal because it is changing the environment and making life hard for people. We need to catch it and work together to stop it. In places like Assam, the land makes it even harder to deal with *C. odorata*. So the government, scientists and people who live there need to work to protect the plants and animals that are supposed to be there. If we want to stop *C. odorata* from causing much trouble, we need to learn more about it. We need to know how it grows and what it does. This is the step to making things right and keeping the world

healthy. If we're dealing with it in our area, remember that prevention through awareness and sustainable land use can make all the difference.



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The Two Leaf-Plant

Have you heard about this amazing gymnosperm described as the ugliest plant by Charles Darwin? It grows only two leaves in its entire life duration of 1500-2000 years (isn't that fascinating). Naturally grows only in the Namib Desert of Namibia and Angola discovered by Austrian botanist Friedrich Welwitsch, hence named *Welwitschia mirabilis* refers to marvellous in Latin. It has no connection with *Mirabilis* species. It is a monotypic species of Gymnosperms.

Talking about its appearance, it has a very alien-like appearance, rugged, leathery leaves



Abhinya Shyam Mishra
 FYUGP 2nd Semester (Minor)
 Roll No: 2532000114

that are ribbon like originates from the dwarf woody stem. This stem also stores water. The growth is very slow initially, requires sunny temp, another fascinating fact is that its leaves can condense water from fog. It produces cones. Sometimes these cones are used medicinally by the native tribes, such as resins, etc.

The species's classification in the plant world is:-

Kingdom: Plantae

Division: Gnetophyta

Class: Gnetopsida

Order: Welwitschiales

Family: Welwitschiace

Genus: *Welwitschia*

Species: *Welwitschia mirabilis*

Hollong Tree (The State Tree of Assam)



Sneha Das
FYUGP 6th Semester
Roll No: 751752310882

The Hollong tree (*Dipterocarpus macrocarpus*) was officially declared the State Tree of Assam on 4th April 2003 by the Government of Assam. The declaration was part of the state's initiative to highlight and conserve ecologically important native tree species that are closely associated with Assam's natural forest ecosystems.

The word "Hollong" is derived from the local Assamese name traditionally used by forest-dependent communities of Upper Assam. It is a vernacular name for *Dipterocarpus macrocarpus*. Like many indigenous plant names of Assam, the term "Hollong" originated through long-standing local usage rather than from Sanskrit or colonial botanical sources. The scientific name was later assigned by botanists through formal taxonomic classification.

Hollong is a massive evergreen tree species that can attain a height of up to 50 metres. It possesses a straight, cylindrical trunk which may exceed 2 metres in diameter. The bark is smooth to slightly flaky, greyish-brown in colour, and often peels off in thin scales. The leaves are simple, large, thick, leathery, and oblong in shape with a glossy dark-green surface. The tree bears large, fragrant flowers that are typically white to pale yellow. The fruit is a winged seed, which facilitates wind dispersal.

Systematic Position of the plant:

Kingdom: Plantae

Division: Angiospermae

Class: Dicotyledonae

Subclass: Polypetalae

Order: Malvales

Family: Dipterocarpaceae

Genus: *Dipterocarpus*

Species: *Dipterocarpus macrocarpus*

The Hollong tree thrives in the tropical wet evergreen and semi-evergreen forests of Assam, particularly in Upper Assam and adjoining forest regions of Arunachal Pradesh and Nagaland. It is especially common in alluvial soil regions of the Brahmaputra Valley, where high humidity and heavy rainfall provide favourable conditions for its growth. Beyond India, related species or populations are distributed across Southeast Asia, including Myanmar, Thailand, Laos, Vietnam, Malaysia, Indonesia, and parts of China.

Ecologically, *Dipterocarpus macrocarpus* plays a vital role in maintaining forest stability. Its extensive root system helps in soil binding and erosion control, particularly in flood-prone areas of Assam. The large canopy influences light penetration and forest microclimate, thereby affecting understorey vegetation. Hollong-dominated forests provide habitat and food

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resources for a wide range of fauna, including birds, insects, and mammals. The timber of Hollong is hard, strong, and durable, which led to its extensive use in house construction, boat-making, and other structural purposes in Assam. The tree also yields oleoresin, traditionally used for waterproofing and related applications. Due to heavy exploitation in the past, natural populations of Hollong have declined in many areas.

In the context of Assam, protected areas such as Dehing Patkai Wildlife Sanctuary and Hollongapar Gibbon Wildlife Sanctuary serve as important natural habitats for the Hollong tree. However, these regions are currently under threat due to open-cast coal mining (particularly in Dehing Patkai), illegal felling, and expansion of monoculture agricultural practices, which may lead to a decline or disappearance of the species in the near future. Additionally, this important species is increasingly threatened by anthropogenic activities. Changes in temperature and rainfall patterns associated with climate change may alter the normal phenological cycle of the species, further affecting its regeneration and long-term survival.

As the State Tree of Assam, the Hollong is more than a source of timber or a botanical record; it stands as a living symbol of the state's natural heritage. Its conservation is therefore essential for safeguarding the rich and complex ecosystem of the "Amazon of the East."



Source:

<https://share.google/Q2mOV0qPyyxgydab0>

Reference:

- <https://www.econe.in/post/hollong-the-forgotten-tree>
- World For Nature
<https://share.google/Hfor6qky3pW93H8P>
- Botanical Survey of India (ENVIS) – Assam State Tree: Dipterocarpus macrocarpus.
<https://share.google/FUSZL8itYIHYeHRPh>

The Walking Dead



Arnav Baruah
FYUGP 2nd Semester
Roll No: 2532000110

1.

As of late, sleeping late and waking up early has become the new normal in modern busy life. What follows are heavy eyes, mental fog, lethargy, and a persistent sense of low energy throughout the day. And I guess a lot of people who read this will be in agreement with me. This is often dismissed as a lack of discipline or a poor lifestyle choice. There is no denying this. We bury our noses close to screens even before the time we go to sleep; many times, we go to the extent of welcoming the sunrise. But the consequences of such a lifestyle choice, at its core, are biological. It is the result of disrupted neurochemistry, dopamine-driven behaviour, and chronic burnout.

2.

Circadian rhythm and melatonin disruption

The human sleep-wake cycle is regulated by the circadian rhythm, an internal clock synchronised primarily by light. Under natural conditions, decreasing light in the evening signals the brain to release melatonin. It is a hormone that initiates sleep and supports deep restorative phases such as REM sleep. REM sleep is the stage of sleep in which the brain is highly active, and we see dreams and emotional and cognitive recovery take place.

Artificial light, especially blue light from screens, interferes with this process. This exposure to light at night suppresses melatonin release and delays sleep onset. Concordantly, even when the body feels tired, the brain remains chemically alert. Sleep occurs much

later and with much tossing and turning than intended and is often shallow and fragmented.

3.

Dopamine and chronic overstimulation

A key neurochemical factor is dopamine. Dopamine is not a pleasure chemical; it is a motivation and anticipation signal. It is released in response to novelty, unpredictability, and reward-seeking behaviour.

Modern digital environments are designed to exploit this system. Endless scrolling, short-form content, notifications, web-series and constant information updates produce repeated dopamine spikes. Over time, the brain adapts to expect continuous stimulation, particularly during the evening hours.

There comes a conflict – Dopamine promotes alertness and reward-seeking behaviour. While Melatonin promotes rest and disengagement. When dopamine remains elevated late into the night, the brain resists shutdown. The conditions of boredom, silence, and stillness necessary for sleep begin to feel uncomfortable.

We are in constant dialogue with ourselves that goes like...

- This is the last reel or short, I promise!
- This will be the last episode I am watching.
- After this ends, let's call it a night.
- This one match was supposed to be my last, but I lost. Awful teammates. Sons of...
- Let's see how many people have looked at my

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Instagram stories

-Has she posted something new? Let's see if she moved on with someone else.

-She didn't reply to my Hllw bhonti, bhat khala? Didn't accept my follow request, let alone follow back. Too much attitude.

-And now feeling defeated, I'm not going to stop until I find something that appeals to me.

And just like that, we are stuck in a continuous loop of anticipation, novelty, and reward-seeking. Now look... I had to come up with these examples to capture your attention. My mind is fried as well, all thanks to this very pattern we follow day in and day out.

We need to understand that these companies have established control over us not forcefully, but by keeping us constantly engaged. And of course, we may be on the verge of establishing our dominion on Mars, but our needs remain primal. Our ancestors were engaged in a struggle and earned those desires. Today, those same desires are just one click or scroll away.

You might argue, "But that's not real. People can't be fulfilled this way." Yet, people now turn to AI chat boxes simply to feel wanted. A man in Japan married Hatsune Miku, a 2D fictional character. It is we who deliberately, purposefully choose deception over reality because lies are comfortable.

We want to be told we are loved just the way we are, that no effort is required, that no change is necessary to deserve love or meaning. We can't place all the blame on corporations for exploiting this vulnerability for profit. We participate willingly. We offer

ourselves up for that false dopamine rush. I think I've strayed a little too far from what I was saying, so I'll let my monologue come to a halt and abstain from pointing out how maybe... just maybe, you don't have depression –it's that toxic relationship with the brick in your hand.

4.

Forced wakefulness and cortisol imbalance

Despite delayed sleep, wake-up times remain fixed due to social and occupational demands. Alarms interrupt sleep cycles before the brain has completed its restorative processes. Chronic stress further worsens this. Stress elevates cortisol. This is the primary stress hormone. Under healthy conditions, cortisol rises gradually in the morning to wake us up. In burnout states, cortisol can spike prematurely and excessively. The result is waking up feeling mentally alert but physically exhausted, anxious rather than refreshed, foggy despite being awake. This is not a failure of sleep duration alone, but a disruption of sleep quality and hormonal timing.

5.

Eye fatigue as an early indicator

The eyes are often the first system to reflect neurological fatigue. Reduced REM sleep impairs neural recovery, while prolonged screen use reduces blink rate and strains eye muscles. Poor posture and shallow breathing further limit oxygen delivery. Symptoms such as heavy eyelids, soreness, dryness, and difficulty focusing are not isolated eye problems; they are signs of central nervous system fatigue.

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6.

Burnout as a state of constant activation

Burnout is often misunderstood as simple exhaustion. In reality, it is a state of prolonged physiological activation without adequate recovery. The nervous system remains in a semi-alert mode, even during rest. In modern life, even leisure time is cognitively demanding. Content consumption replaces true rest. Mental idleness has nearly disappeared. Without periods of low stimulation, the brain cannot downshift into deep repair modes. This leads to persistent low energy, impaired concentration, and emotional dullness.

7.

Recovery requires neurochemical downshifting

Restoration does not require extreme interventions. It requires allowing the nervous system to return to its natural rhythms.

Key conditions include:

- Reduced light exposure at night
- Lower dopamine stimulation before sleep
- Consistent sleep-wake timing
- Morning exposure to natural light
- Intentional periods of mental idleness

These changes allow melatonin and cortisol cycles to normalise and reduce dopamine dependency.

8.

Conclusion

The contagious experience of poor sleep and constant fatigue is not a personal failure. It is an outcome of living in an environment that prioritises stimulation over recovery. The human nervous system evolved to alternate between engagement and rest. When rest is continuously delayed or filled with stimulation,

the system does not collapse at once; it slowly degrades.

I believe the process of recovery begins not with aggressive efforts to make changes, but with resisting the impulses to fall back into old ways, not with optimisation, but with allowing space. Biology already knows how to rest if we stop interfering.

And lastly, life is simple. We people, are twits. Negativity sets in only when we have something or someone to blame. Creativity outpours when we sit in silence. Desires are fulfilled when we take actions. And Love? I'm not sure what it is, but I think it is not a mere insipid, feeble illusion of a naive human mind. Maybe it is the source of everything. I believe in magic, too, and I've heard it said somewhere that Magic happens when we give it space to exist.

One may be troubled by people and the way their actions affect them. During difficult and unpleasant times, we often turn to food, alcohol, drugs, money, gambling, getting laid, or relationships. These are not the long-term solutions we seek. In time, we realise that samsara offers no promise of lasting satisfaction or happiness. And so, we begin to yearn for refuge in something more meaningful. Some turn to religion and scriptures, and for many, that helps. For those who are not men or women of faith, some thinkers spent their entire lives examining existence and accounting for it on paper. I would recommend one such work - *Meditations* by Marcus Aurelius.

So instead of turning to things that slowly ruin us afterwards, why not turn to something that draws us inward? Why lose

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sleep over trivial worries and rituals that add no meaning? And if losing sleep is truly inevitable, then let us at least spend those nights seeking our purpose, asking how we might do one good deed today, or simply planning what we wish to accomplish when we wake.

A Note from the writer:

Before writing this, I had struggled for a long time and abandoned a lot of ideas, until it all came into the shape of what you currently read. While in the process, I took help from Google and ChatGPT for the biological facts. As the deadline crept closer, I realised that all my findings, insights and ideas I wanted to express may not have received the justice they deserved in the rush. Even then, if it gets published and you devoted your valuable time to reading it. I want to thank you from the bottom of my heart.



বিহুৰ সৈতে জড়িত উদ্ভিদ সমূহৰ সম্যক আভাস



ওমৰাজ দত্ত
FYUGP দ্বিতীয় শাৰ্ণাসিক
Roll No: 2532000957

বিহুটি অসমীয়া সমগ্ৰ সত্তাটোৰ প্ৰানস্বৰূপ। সেউজীয়া অসমৰ সেউজ প্ৰকৃতিয়ে সেউজীয়া সপোন দেখুৱায়। বিহু আমাৰ সংস্কৃতি আৰু পৰম্পৰাৰ অবিচ্ছেদ্য অংগ। বিহুৰ লগত প্ৰকৃতিৰ সম্পৰ্কও অভিন্ন। প্ৰকৃতিৰ পৰিবৰ্তনৰ এক সুন্দৰ সময়ত বিহু পালন কৰা হয়। ফাগুনৰ বতাহে লঙঠা কৰি পেলোৱা প্ৰকৃতিৰ বুকুত ঠাই লয় নতুন কুঁহিপাতে। উকা উৰুঙা ফাগুনত তেজ ৰঙা শিমলু, ৰঙা পলাশ, গোলাপী দেৱকাঞ্চন আদিয়ে দি যায় জীয়াই থকাৰ অদম্য হেপাহ। নতুন ফুল পাতেৰে প্ৰকৃতি নদন বদন হয়। ব'হাগ বিহু পালনৰ সময়ত কেতবোৰ বিশেষ বৈশিষ্ট্যসম্পন্ন উদ্ভিদৰ ব্যৱহাৰ হয়। তাৰে কিছুমান তলত আলোচনা কৰা হৈছে।

বৰ্হমথুৰি

বসন্তকালত সুগন্ধিযুক্ত ফুল ফুলা বৰ্হমথুৰি গছজোপা (বৈজ্ঞানিক নাম *Magnolia hodgsonii*) অসমৰ প্ৰকৃতি, সংস্কৃতি আৰু বহাগ বিহুৰ সৈতে ওতঃপ্ৰোতভাৱে জড়িত। ইয়াৰ ফল বা কুঁহিপাত মহিলা সকলে ওঠত ৰঙ লবলৈ ব্যৱহাৰ কৰে। যাক 'লিপষ্টিক চম্পা' বুলিও জনা যায়। এসময়ত অসমৰ হাবি-বননিবোৰত এই গছবিধ অতি সুলভ আছিল। কিন্তু সময়ৰ ধামধুমীয়াত পৰি এই উদ্ভিদবিধ ক্ৰমে বিলুপ্তিৰ দিশলৈ গতি কৰিছে।



Source:

<https://www.treesandshrubs.org/articles/magnolia/magnolia-officinalis/>

এই উদ্ভিদবিধ ঔষধি গুণসম্পন্ন। এই গছৰ পাতে দাঁতৰ বিষ উপশম ঘটোৱাৰ লগতে হজম শক্তি বঢ়ায়। বিশেষকৈ অসমৰ দৰে নিবনুৱা সমস্যাৰে জৰ্জৰিত ৰাজ্যত প্ৰাকৃতিক গুণসম্পন্ন বৰ্হমথুৰিয়ে লিপষ্টিক, বনৌষধ আদিৰ ঠাই লৈ নতুন প্ৰজন্মৰ স্বাৱলম্বিতাৰ পথ প্ৰশস্ত কৰিব পাৰে।

জেতুকা

জেতুকা অসমীয়া লোক-সংস্কৃতি আৰু পৰম্পৰাৰ এটা উল্লেখযোগ্য অংগ। জেতুকাৰ বৈজ্ঞানিক নাম হৈছে *Lawsonia inermis* এবিধ সপুষ্পক উদ্ভিদ। বৰ্তমানৰ ৰাজস্থানৰ পালি জিলাত অধিক মাত্ৰাত জেতুকাৰ খেতি কৰা অঞ্চল হিচাপে চিহ্নিত হৈছে। এই উদ্ভিদজোপা দুইৰ পৰা ছয় মিটাৰ পৰ্যন্ত ওখ হয়। বহু শাখা-প্ৰশাখাযুক্ত উদ্ভিদজোপাৰ পাতবোৰ ডালবোৰত বিপৰীতমুখী হৈ নামমাত্ৰ ঠাৰিৰে সংযুক্ত হৈ থাকে। জেতুকা ৰং কৰা প্ৰসাধন সামগ্ৰী আৰু ঔষধ হিচাপে আজিৰ পৰা হাজাৰ বছৰৰ আগৰে পৰা ব্যৱহাৰ কৰি অহা হৈছে। অসমীয়া জীয়াৰী-বোৱাৰীসকলে গৰু বিহুৰ দিনা হাতত জেতুকা লয়। ব'হাগ বিহুত জেতুকাৰ ৰঙেৰে গাভৰু ছোৱালীয়ে ৰং সানে। বিহু নাচনীয়েও হাতত জেতুকাৰ ৰঙ সানে। চুলিত লগাব পৰা এবিধ প্ৰাকৃতিক ৰঙ হিচাপেও জেতুকা ব্যৱহাৰ কৰা হয়। জেতুকা পাতৰ কেইবাবিধো ঔষধি গুণ আছে বুলি কোৱা হয়। নখচুকীয়া, নাকৰ এৰা ভঙা আদিত উপাচাৰস্বৰূপে জেতুকাৰ ব্যৱহাৰ হয়। ইয়াক উচ্চৰক্তচাপ, চাল আৰু চুলিৰ বিভিন্ন বিকাৰৰ বাবেও দৰব হিচাবে ব্যৱহাৰ কৰা হয়।



source:

<https://www.healthbenefitstimes.com/henna-plant/>

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নাহৰ

নাহৰ গছক অসমীয়া সংস্কৃতি আৰু প্ৰকৃতিৰ এক গুৰুত্বপূৰ্ণ অংশ হিচাপে গণ্য কৰা হয়। নাহৰ গছৰ ফুল ফুলাৰ বতৰা অহা মানেই বসন্তকাল আহিছে, যি ৰঙালী বিহুৰ সময়, সেয়ে ই বিহুতলীৰ এক অবিচ্ছেদ্য অংশ। নাহৰৰ শুভ্ৰ, সুগন্ধি ফুলে বিহুতলীৰ নাচনীৰ সাজ-সজ্জা আৰু সাজ-পোছাকত বিশেষ স্থান পাইছে, যিয়ে বিহুতলীক এক সুন্দৰ পৰিৱেশ দিয়ে। নাহৰৰ গুটিৰ পৰা ওলোৱা তেল (নাহৰ তেল) বহুতো ঔষধি গুণসম্পন্ন, যিয়ে বিহুত লগতে আন সময়তো ব্যৱহৃত হয়।

কপৌফুল

অসমৰ ৰাজ্যিক ফুল হিচাপে স্বীকৃত কপৌফুল ৰ বৈজ্ঞানিক নাম হৈছে *Rhynchosstylis retusa*. ই হৈছে এবিধ ভান্দা গোটৰ আকৰ্ষক অৰ্কিড প্ৰজাতি। সাধাৰণতে অসমৰ হাবিত, বননিত, আৰু ডাঙৰ গছৰ ডালে ডালে (পৰাশ্ৰয়ী উদ্ভিদ হিচাপে) পোৱা যায়, বিশেষকৈ ডাঙৰ গছ যেনে আম, কঁঠাল, তামোল আদিৰ ওপৰত। বিহুত কপৌফুল প্ৰধানকৈ সাজ-সজ্জা আৰু প্ৰেমৰ প্ৰতীক হিচাপে ব্যৱহাৰ হয়; নাচনীয়ে খোপাত কপৌফুল গোজে আৰু ইয়াক ডেকা-গাভৰুৰ প্ৰেমৰ চিন হিচাপে আদান-প্ৰদান কৰা হয়। ঔষধিয় গুণৰ বাবে এই উদ্ভিদ কটা-ছিঙা, ঘা আদিৰ চিকিৎসাত ব্যৱহাৰ কৰা হয়। কাণ পকিলে বা কাণৰ বিষ হ'লে বিষ নিৰাময়ৰ বাবে কপৌফুলৰ কেঁচা পাতৰ ৰস এক-দুইটোপাল ব্যৱহাৰ কৰা হয়। বাণিজ্যিক দৃষ্টিকোণৰ ফালৰ পৰা অসমত ইয়াৰ চাহিদা অতি বেছি।



Source:

<https://www.orchids.org/articles/rhynchosstylis-retusa-the-foxtail-orchid>

দীঘলতী আৰু মাখিয়তী

দীঘলতীৰ বৈজ্ঞানিক নাম হৈছে '*Litsea salicifolia*'. অসম আৰু ইয়াৰ ওচৰ-পাজৰৰ কিছু অঞ্চলত এই গছ পোৱা যায়। এই গছৰ গা-গছ বা ডালবোৰ কিছু দুৰ্বল আৰু লেহুকা। পাতবোৰ দীঘলীয়া হোৱা বাবেই ইয়াৰ নাম দীঘলতী হোৱা বুলি স্থানীয় লোকসকলে ভাবে। মাখিয়তীৰ বৈজ্ঞানিক নাম *Flemingia strobilifera*. গছবিধ প্ৰধানকৈ জোপোহা বা গুল্মজাতীয় বন যদিও ই ১০-১২ ফুট ওখ। পাতবোৰ সৰু আৰু ওপৰ পিঠি নিমজ কিন্তু তলপিঠিত অসংখ্য সৰু সৰু শুং থাকে বাবে কিছু খহটা। পাতৰ সিৰা-উপসিৰাবোৰ স্পষ্ট। ফেব্ৰুৱাৰী-মাৰ্চ মাহত ইয়াত ফুল ফুলে। ৰঙালী বিহুৰ সময়ত গৰু ধুওৱাৰ বাবে দীঘলতী আৰু মাখিয়তী গছৰ সৰু ডালেৰে কোবাই গৰু ধুওৱাটো এক পৰম্পৰা। গৰু বিহুৰ সন্ধিয়া গোহালিত দীঘলতীৰে জাগ দিয়া হয়। ই পোহনীয়া জীৱ-জন্তুক ম'হ, মাখি, দাঁহ আদি পতংগৰপৰা আঁতৰাই ৰখাত সহায় কৰে। দীঘলতী গছৰ পাতৰ ৰস চৰ্মৰোগত উপযোগী। গ্ৰহণী ৰোগৰ বাবে দীঘলতীৰ পাতৰ ৰস, ডালিমৰ পাতৰ ৰসৰ মিশ্ৰণ সেৱন কৰিব লাগে। প্ৰসৱ বেদনা কিছু পৰিমাণে প্ৰশমনৰ বাবে দীঘলতীৰ শিপাৰ ৰস উপযোগী। দীঘলতী গছৰ বাকলি হাপানী বা এজমাৰ উপশমৰ বাবেও ব্যৱহাৰ কৰা হয়। মুগা পলুৱে ইয়াৰ পাত খাই জীয়াই থাকিব পাৰে। মাখিয়তীৰ শিপাৰ ৰস মৃগীৰোগ আদিৰ বাবে উপকাৰী। খৰ সদৃশ চৰ্মৰোগতো ইয়াৰ শিপাৰ পৰা নিঃসৰিত ৰস লেপন হিচাপে ব্যবহাৰ কৰা হয়। জ্বৰ-কাঁহৰ বাবে এই গছৰ শিপা, জালুক আৰু পিপলিৰ লগত খাব লাগে। পেট বিষ বা পেট কামুৰণিৰ বাবে এই গছৰ শিপা, তিতাভেঁকুৰী আৰু গোলনেমুৰ সিজাই তাৰপৰা প্ৰস্তুত কৰা ৰস খাব লাগে।

শাক

অসমৰ খাদ্য প্ৰণালীত শাকৰ গুৰুত্ব অপৰিসীম। ব'হাগ বিহুৰ যিকোনো এদিন বিশেষকৈ গৰু বিহু নতুবা সাতবিহুৰ দিনাখন তিতা শাকক প্ৰাধান্য দি অঞ্চল আৰু জনগোষ্ঠী সাপেক্ষে সাতবিহুৰ পৰা বাৰবিহু, এশ এবিধ, এশ সাতবিহু বাৰেমিহলি শাকৰ

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আঞ্জা খোৱা ৰীতিটোক সাতশাকী বোলা হয়। এই লোকাচাৰত ব্যৱহৃত শাকসমূহৰ ভিতৰত অসমৰ খাদ্য প্ৰণালীত শাকৰ গুৰুত্ব অপৰিসীম।

ব'হাগ বিহুৰ যিকোনো এদিন বিশেষকৈ গৰু বিহু নতুবা সাতবিহুৰ দিনাখন তিতা শাকক প্ৰাধান্য দি অঞ্চল আৰু জনগোষ্ঠী সাপেক্ষে সাতবিধৰ পৰা বাৰবিধ, এশ এবিধ, এশ সাতবিধ বাৰেমিহলি শাকৰ আঞ্জা খোৱা ৰীতিটোক সাতশাকী বোলা হয়। এই লোকাচাৰত ব্যৱহৃত শাকসমূহৰ ভিতৰত টেকীয়া, টিকনি বৰুৱা, নেফাফু, বনজালুক, কচু, ভেদাইলতা, ব্ৰাশ্মী, নৰসিংহ, খুতৰা, কলমৌ, মানিমুনি, জিলমিল, মছন্দৰী, মানধনীয়া, পচতীয়া, মধুসোলেং, চালকুঁৱৰী, চিৰতা, ভেঁকুৰি, পুৰৈ, অগৰা, বকফুল আদি অন্যতম। শাকে কেৱল মনত তৃপ্তি, জিভাত সোৱাদ দিয়াই নহয়, ইয়াতো আছে নিৰ্ভৰযোগ্য বিজ্ঞানসন্মত যুক্তি। এনে শাকে মানুহৰ দেহত সতেজতা প্ৰদান কৰে, বল-শক্তি বৃদ্ধি কৰে আৰু কৰ্ম প্ৰেৰণা যোগায়। মানুহৰ দেহত বিভিন্ন ধৰণৰ ৰোগৰ প্ৰতিষেধক ৰূপে কাম কৰে আৰু ৰোগ নিৰাময়তো সহায়ক হয়। ইয়াৰ ঔষধি গুণে জ্বৰ, কাহ চৰ্দি আদিৰ উপশম ঘটাই বুলি অসমীয়া সমাজত জনবিশ্বাস আছে। উজনি অসমৰ লগতে নামনি অসমত এনে এশ এবিধ শাক খোৱাৰ প্ৰচলন বিদ্যমান।



Source: <https://www.dreamstime.com/laai-xaak-mustard-greens-english-green-leaves-mustard-greens-have-board-wavy-frilled-leaves-green-colore-mustard-green-image167342607>

বসন্তৰ বাপতি সাহোন বিহুটিত এইসমূহ বিশেষ উদ্ভিদৰ লগতে নাহৰ, তগৰ, কেতেকী ফুল, তৰা গছ, তামোল-পাণ, কলগছ আদি উদ্ভিদৰ সংগতি তথা প্ৰয়োজনীয়তা আছে। প্ৰকৃতিৰ সৈতে জড়িত বিহুটি প্ৰকৃতিৰ অৱদানৰ অবিহনে আধৰুৱা। এই উদ্ভিদসমূহৰ ঔষধি গুণৰ বাবে ই বানিজ্যিক ক্ষেত্ৰখন চহকী কৰিছে যিয়ে নতুন প্ৰজন্মৰ স্বাৱলম্বিতাৰ পথ প্ৰশস্ত কৰিব পাৰে।



Source: <https://www.slurp.com/article/manimuni-to-durun-exploring-assams-favourite-herbs-and-leafy-greens-1652065493471>

অসমৰ বনৌষধি ভাণ্ডাৰ

অসমৰ চাৰিওফালৰ প্ৰকৃতি কেৱল চকুৰ আকৰ্ষণৰ বাবে নহয়, বৰং আমাৰ প্ৰতিদিনৰ জীৱনৰ এক অপৰিহাৰ্য অংশ। ইয়াৰ মাজতেই উপহাৰ স্বৰূপে আছে অসমৰ মানুহে হাজাৰ হাজাৰ বছৰ ধৰি ব্যৱহাৰ কৰি অহা বনৌষধিসমূহ। এইবোৰ বনৌষধি কেৱল বন-শাক নহয়, ইহঁত আমাৰ পূৰ্বপুৰুষৰ জ্ঞান আৰু প্ৰকৃতিৰ নিৰাময় শক্তিৰ এক অমূল্য ভাণ্ডাৰ।

তাৰে কেইটিমান উদ্ভিদ আৰু তাৰে উপকাৰিতা হ'ল—

১) মানিমুনি—

অসমত সাধাৰণতে এই গছৰ মানিমুনি পোৱা যায়— বৰ মানিমুনি আৰু সৰু মানিমুনি।

উপকাৰিতা: পেটৰ অসুখ যেনে— গ্ৰহণী (Dysentery), বদহজম বা পেটৰ বিষৰ বাবে ই মহৌষধ। ই স্মৃতি শক্তি বৃদ্ধি কৰাত সহায় কৰে।



Source: <https://www.dreamstime.com/photos-images/manimuni.html>

২) নৰসিংহ—

প্ৰায় প্ৰতিজন অসমীয়া মানুহৰ বাৰীত নৰসিংহ গছ থাকে।

উপকাৰিতা: ই পাচনতন্ত্ৰ মজবুত কৰে আৰু গ্ৰহণী বা ডায়েৰিয়া হ'লে ইয়াৰ পাতৰ ৰস অতি কাৰ্যকৰী। ইয়াত প্ৰচুৰ পৰিমাণে আইৰণ থাকে।



পাৰ্থ প্ৰতীম মহন্ত
FYUGP দ্বিতীয় ষাণ্মাসিক
Roll NO: 2532000960

৩) ভেদাইলতা—

ইয়াৰ এক বিশেষ ধৰণৰ গোলক থাকে, যাৰ বাবে ইয়াক ইংৰাজীত 'Skunk Vine' বুলি কোৱা হয়।

উপকাৰিতা: গাঁঠিৰ বিষ (Joint pain) আৰু পেটৰ সমস্যাৰ বাবে ভেদাইলতাৰ ব্যৱহাৰ অতি উপকাৰী। ই শৰীৰৰ দুৰ্বলতা দূৰ কৰাতো সহায় কৰে।

৪) বাহক তিতা—

উপকাৰিতা: কাহ, চৰ্দি আৰু কফৰ বাবে তিতাবাহকৰ পাতৰ ৰস মৌৰ লগত খালে অতি সোনকালে আৰাম পোৱা যায়। এজমা বা হাঁপানী ৰোগীৰ বাবেও ই উপকাৰী।

৫) তুলসী—

উপকাৰিতা: জ্বৰ বা বিষ হ'লে তুলসীৰ ফুলৰ ৰস কপালত লগাই বা ইয়াৰ পাতৰ ৰস খালে উপশম পোৱা যায়। ইয়াৰ ব্যৱহাৰে যকৃত (Liver)ৰ সমস্যাতো সহায় কৰে।



Source:

<https://navrangindia.blogspot.com/2016/05/tulsi-basil-plant-and-hindu-worship.html>

৬) ব্ৰাহ্মী—

উপকাৰিতা: মস্তিষ্কৰ বিকাশ আৰু স্মৃতি শক্তি বৃদ্ধিৰ বাবে ব্ৰাহ্মী শাক অতি উত্তম। ই মানসিক চাপ আৰু দুশ্চিন্তা হ্ৰাস কৰাত সহায় কৰে।

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৭) সিজু গছ—

সিজু গছ সাধাৰণতে গাঁৱৰ মানুহে ঘৰৰ ওচৰত বা সীমা হিচাপে ব্যৱহাৰ কৰে। ইয়াৰ কেইবাটাও ঔষধীয় গুণ আছে।

কাহ আৰু ডিঙিৰ বিষ: সিজু গছৰ পাত গৰম কৰি তাৰ পৰা ওলোৱা ৰস অলপ মৌৰে সৈতে খালে পুৰণি কাহ আৰু ডিঙিৰ বিষ উপশম হয়।



Source:

https://www.flickrriver.com/photos/dinesh_alk/e/7051107835/

৮) নিম গছ—

নিমক “প্ৰকৃতিৰ ফাৰ্মেচী” বুলি কোৱা হয়। ইয়াৰ প্ৰতিটো অংশই (পাত, ছাল, ফল, গুটি) ঔষধি গুণসম্পন্ন। ছালৰ সমস্যা: নিম পাত দি পানী গৰম কৰি গা ধুলে খৰ- খজুৱতী, ফোঁহা আৰু অন্যান্য চৰ্মৰোগ দূৰ হয়। নিমৰ আঠা বা তেল, ফোঁহা (acne) সমস্যাতো খুবেই কাৰ্যকৰী।

৯) গুৰিচ—

কটা-চিঙা হ'লে তেজ ওলোৱা ঠাইত গুৰিচৰ ৰস লগালে উপশম পোৱা যায়।

১০) চিৰতা—

দীৰ্ঘদিনীয়া জ্বৰ আৰু যকৃত (Liver)ৰ সমস্যাৰ বাবে।

১১) কলমৌ শাক—

স্নায়বিক দুৰ্বলতা আৰু পাচনতন্ত্ৰৰ সমস্যাত উপকাৰী।

১২) অৰ্জুন—

হৃদৰোগ আৰু উচ্চ ৰক্তচাপ নিয়ন্ত্ৰণৰ বাবে।

১৩) ধনুবিহাল (পাত)—

দস্তৰ বিষ আৰু অতিসাৰ (Diarrhea) ৰোগত।

১৪) শেৱালি—

কঁপনীৰ বিষ, বাত বিষ আৰু কৃমি নাশক হিচাপে।



Source:

<https://plantscorner.in/shop/flower-plants/night-flower-shiuli-jasmine-plant/>

১৫) আমলখি—

ভিটামিন C-ৰ উৎস, ৰোগ প্ৰতিৰোধ শক্তি আৰু চুলিৰ বাবে।



Source: [https://housing.com/news/wp-](https://housing.com/news/wp-content/uploads/2023/01/Indian-gooseberry-tree-Tips-to-grow-and-maintain-f.jpg)

[content/uploads/2023/01/Indian-gooseberry-tree-Tips-to-grow-and-maintain-f.jpg](https://housing.com/news/wp-content/uploads/2023/01/Indian-gooseberry-tree-Tips-to-grow-and-maintain-f.jpg)

সমাপ্তিত ক'ব পাৰি যে, আমাৰ ঘৰৰ আশে-পাশে থকা এই বনৌষধি গছসমূহ প্ৰকৃতিৰ এক অমূল্য দান।

আধুনিক চিকিৎসা বিজ্ঞান যথেষ্ট আগুৱাই আহিলেও, কিন্তু আমাৰ আইতা-ককাই আমাক দি যোৱা এই ঘৰুৱা চিকিৎসাবোৰ আজিও সমানেই প্ৰাসঙ্গিক। এই গছবোৰ কেৱল ঔষধি নহয়, বৰং আমাৰ সংস্কৃতি আৰু পৰম্পৰাৰ এক অবিচ্ছেদ্য অংশ। সেয়েহে, এই বনৌষধি উদ্ভিদসমূহৰ উচিত চিনাক্তকৰণ কৰা, সেইবোৰৰ যত্ন লোৱা আৰু ভৱিষ্যৎ প্ৰজন্মক ইয়াৰ ঔষধীয় গুণসমূহৰ বিষয়ে অৱগত কৰাটো আমাৰ দায়িত্ব। আহক, আমি আমাৰ চৌদিশৰ পৰিৱেশ সংৰক্ষণ কৰি এক সুস্থ তথা প্ৰাকৃতিক জীৱনৰ দিশে আগবাঢ়ো।

STORY SECTION



The Green Things We Walk Past



Tsering Drema
 FYUGP 4th Semester
 Roll No: 2471100816

Sometimes I feel like our college has two versions: one version that we see when we are running to class, half-awake, complaining about attendance... and another version that only shows itself when we actually slow down. If you've ever walked from the main gate towards the Botany department during the monsoon, you'll get what I mean. There are plants growing everywhere-in cracks, along the boundary walls, near the bike stand-tiny ecosystems that nobody even looks at.

We study adaptation and survival in books, but the real proof is literally outside the canteen, near that pool, where ferns somehow survive both heat and human chaos.

Sometimes after class, the three of us-me, Ankita, and Khushi-sit outside the canteen with chai and talk about the most random plant-related things. Not in a "we are scientists" way, but more like "why does this leaf look so funny?" or "why does this moss look so soft?" And that's when Khushi comes up with the most random but deep questions like, "Why do we treat some leaves like decoration and others like nothing?" or "Do plants get tired?"

Ankita just laughs, and I stare at her because, honestly, she's one of a kind. It's funny, but it also makes me appreciate the campus more,

because once someone points out something green, it's impossible to unsee it.

Studying Botany changed that for me. Now every colony of moss on the wall looks alive, every random herb looks like it has a story, and every seasonal change feels like a small festival. During winter, the sunlight hits the campus differently, the leaves lose colour, and everything feels slower. During the monsoon, the whole place smells like wet soil, and you can literally see mushrooms near the garden area like surprise guests.

The funniest thing is how invisible plants can be. Hundreds of students walk through that same path every day, step on fallen leaves, pass the same trees, sit under the same shade, but nobody actually sees them. And I'm not saying they have to-life is fast, and deadlines exist-but when you do notice, you suddenly feel calmer. You feel like the world is not just classrooms, marks, and future anxiety.

I don't know if this counts as scientific appreciation or emotional attachment, but noticing plants has made me feel calmer. Plants don't panic when things change. They just adapt. They survive quietly, without noise or drama, whether or not anyone pays attention and somehow that teaches you something about growing up too.

STUDENTS' SECTION

So next time you walk to class or sit outside the canteen waiting for friends, just look around once. Touch a leaf, notice the patterns, or count how many shades of green exist one small corner. Nature does not ask for attention, but when you give it, you get something back.





The Plants That Watched Me Grow



Tinaraje Das
FYUGP 4th Semester
Roll No: 24751100500

When I first entered the Botany department, I thought I was here just to study plants. I did not know that, quietly, they would begin studying me too. Every morning, as I walked past the corridor lined with potted plants, I barely noticed them. My mind was filled with attendance worries, unfinished records, and upcoming practicals. The plants stood there day after day – silent, green, unnoticed. Just like many first-year students trying to find their place.

It took time before I started seeing them properly. One afternoon, after a particularly exhausting practical class, I sat near the departmental garden instead of rushing home. The air smelled faintly of wet soil. A snake plant stood in the corner, its leaves just starting to curl at the edges, a subtle sign that even this hardy plant was beginning to show its age. I remember thinking how strange it was that something so beautiful could be so temporary. That day, our teacher had spoken about plant life cycles, and plant diseases. I had written the answers neatly in my record. But sitting there, watching that plant slowly surrender to time, the lesson finally felt real.

As days passed, the department became more than classrooms and labs. It became a living space. I began noticing small things – new leaves appearing after pruning, climbers finding support where none was intended.

During one practical session, a classmate accidentally broke a young stem. There was

a brief silence, tinged with guilt, until another classmate just smiled and said, “Observe what happens next.” Weeks later, that same plant had branched out even stronger than before. That moment stayed with me.

During field trips, while we were focused on taking pictures, suddenly I found myself pausing to notice the quieter details around us. I didn't always crouch down near the ground, but I started to see the unnoticed plant, the moss on rocks, the grasses bending in the wind, the tiny flowers whose names we never really remembered. They never asked for attention, yet they survived storms, footsteps, and neglect.

Slowly, without any big announcement, botany changed how I saw myself. It was like roots growing quietly underground— growth happening where no one could see. I found I was learning patience from plants that came back every year, toughness from the ones that started over each season, and a kind of humility from the smallest little herbs.

The departmental lab no longer felt like a place of pressure alone. It felt like a space of responsibility. Each specimen on the table carried life, history, and purpose. Each practical became a reminder that observation is an act of respect. I walked more slowly. I noticed the plants and sometimes I feel like they notice me too. Perhaps that is what botany truly teaches us not just about plants, but about becoming attentive to life itself.

STUDENTS' SECTION



About growing quietly, steadily, and honestly – until one day, you realise you have rooted yourself firmly, exactly where you are meant to be.



Why I Choose Botany

It's an interesting topic that why did I choose botany over anything, but I should say the truth that botany was not even in my plans. Like many people, I also dreamed of becoming a doctor and to become a doctor we need to crack Neet which I could not make possible. When I failed Neet than I decided to join our college and here I applied for chemistry. It's funny right now, but if I tell the complete story, I applied for chemistry and I even got it, but the main twist is I did not had math as a subject. In the time of making the admission payment, the authority rejected my admission than I was devastated that now what I will do because that was the last day of admission. Then I again applied but that time I choose botany and thanks to my luck I got the seat to be honest. I really thought that now what I will do with botany does it have scope, many questions were on my mind as I was new to the field and all those years I only focused on Neet, so I had no idea.

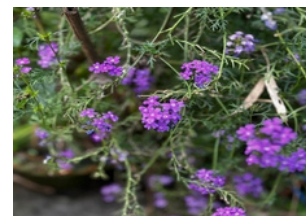
After our college finally opened, our teachers introduced us so many new concepts and we learned so many new things about this field and all thanks to our teachers for making my confusion into clarity about botany. At first, I did not choose botany, but on the first day itself, after meeting our teachers and learning new concepts about botany, I realized that choosing botany was the best decision.



Tanvi Rehman
 FYUGP 2nd Semester
 Roll No: 2532000520

Now that I think about all this, I already spent 6 months being a Botany student. I love capturing nature and its creation. Wherever I see a beautiful plant or a beautiful flower, I capture it. Whenever I am sad, I go out in my garden and just sit there and feel a connection with nature because nature always takes away my sadness. Still, my destiny was always Botany, and I am not even exaggerating; it's just what I feel. I am so glad that I can express my gratitude to Botany and my teachers through Verdant. After all the events that happened during choosing Botany, one thing I truly believed was that I did not choose Botany. Botany chose me.

Some of my clicks from my garden are pinned here:



The Silence That Learnt



Hasrin Samim Ullah
FYUGP 2nd Semester
Roll No: 2532000248

The data from Axiom Field Systems had been flawless for six weeks. No spikes. No drops. No randomness. The graphs looked like they had been drawn by a careful hand rather than a recorded from a living place. That is why I was sent here. They called it a wetland, though the word felt inaccurate. The land was older than names—flat waters held in place by dark soil, reeds growing wherever they pleased, insect stitching the air together. When I stepped out of the transport, the place sounded alive. Frogs croaked. Wing buzzed. Something moved beneath the water, slow and heavy. I stood still and listened before unpacking. The powered on the instruments. The sound thinned. Not vanished—just reduced, like a crowd lowering its voice. The frogs finished their calls but didn't begin again. The insect remained, but their noise aligned into a steady hum. Even the water settled, its surface smoothing itself as if embarrassed by its earlier movement. I told myself this was coincidence. Wetlands are sensitive. They react. Still, I made notes.

By midday, the reading was immaculate. Temperature stable. Humidity ideal. Gas levels balanced to a decimal. It was the most cooperative ecosystem I had ever recorded. During calibration, the equipment shut down for exactly seven minutes. It came all at once, like breath released after being held for too long. Frogs resumed mid-call, not restarting but continuing, as if they had been paused. The water rippled. Something splashed deeper in the marsh. A bird screamed overhead—sharp, irregular, wrong. I felt relief I hadn't known I was missing.

When the instruments rebooted, the relief ended. The place corrected itself again. That night, I reviewed the footage. Every recorded frame showed a landscape too balanced to be real. Plants leaned at pleasing angles. The water reflected cleanly. Even decay appeared measured, contained. The unrecorded intervals—empty files, sensor gaps—were different. Messy. Blurred. Alive.

On the third day, tested a theory. I hid one sensor beneath a root and left it off. The rest remained active. From a distance, the wetland looked unchanged. But near the root, where none was watching, the soil churned. Insects collided clumsily. A plant bend too far and snapped under its own weight.

I switched the hidden sensor on. The chaos tightened instantly. Movement slowed. The broken plant lay still, its torn fibers settling into something almost symmetrical. That was when I understood. The site wasn't reacting to us. It was performing. Not for survival. Not for defense. For observation. It had learned what we wanted from it— not consciously, not emotionally—but statistically. Every camera narrowed its behavior. Wildness was inefficient. Predictability kept it intact. I wondered how many places had already learned this lesson.

On the fifth night, I dreamed the wetland was empty. Perfect water. Perfect air. No sound at all. The instrument kept recording long after there was nothing left to record. I woke up before dawn and shut everything down.

The silence that followed was not relief this time. It was waiting.

STUDENTS' SECTION

Slowly, sound returned- not rushing, not eager; cautious. As if the place wasn't sure whether it was allowed to exist freely yet.

I packed my equipment without turning anything back on. At the edge of the site, I stopped. The wetland moved behind me- imperfect, noisy, alive. I imagined what the report would say without data. How unacceptable it would be. Before leaving, I entered one final note into the system. No measurements. No graphs. Just a sentence.

"Observed behavior stabilizes under observation. Life resumes in its absence."

The system flagged the site as stable. As the transport lifted away, I looked down and saw the wetland shift- water spilling where it shouldn't, sounds colliding, patterns breaking. It was beautiful. And I knew, with a quite certainty, that the next time someone came to watch it, would behave again.



BALLADS

of

BOTANY



BEFORE WE KNEW WHAT THIS WAS



Tinaraje Das
FYUGP 4th Semester
Roll no : 24751100500

Nobody tells you
that some places don't teach -
They watch.

They watch how you enter quietly,
how you pretend confidence fits you,
How do you learn to sit through doubt
without asking to leave.

We thought we were here to understand plants.

That was the excuse.

The real work was elsewhere.

It happened when a teacher didn't interrupt your half-right answer.

When a plant survives even though you forgot to water it.

When you stayed back for no reason at all
and didn't feel guilty about it.

That's when the place started knowing you.

Here, nothing demanded brilliance.

Only sincerity.

Only attention.

Leaves didn't perform.

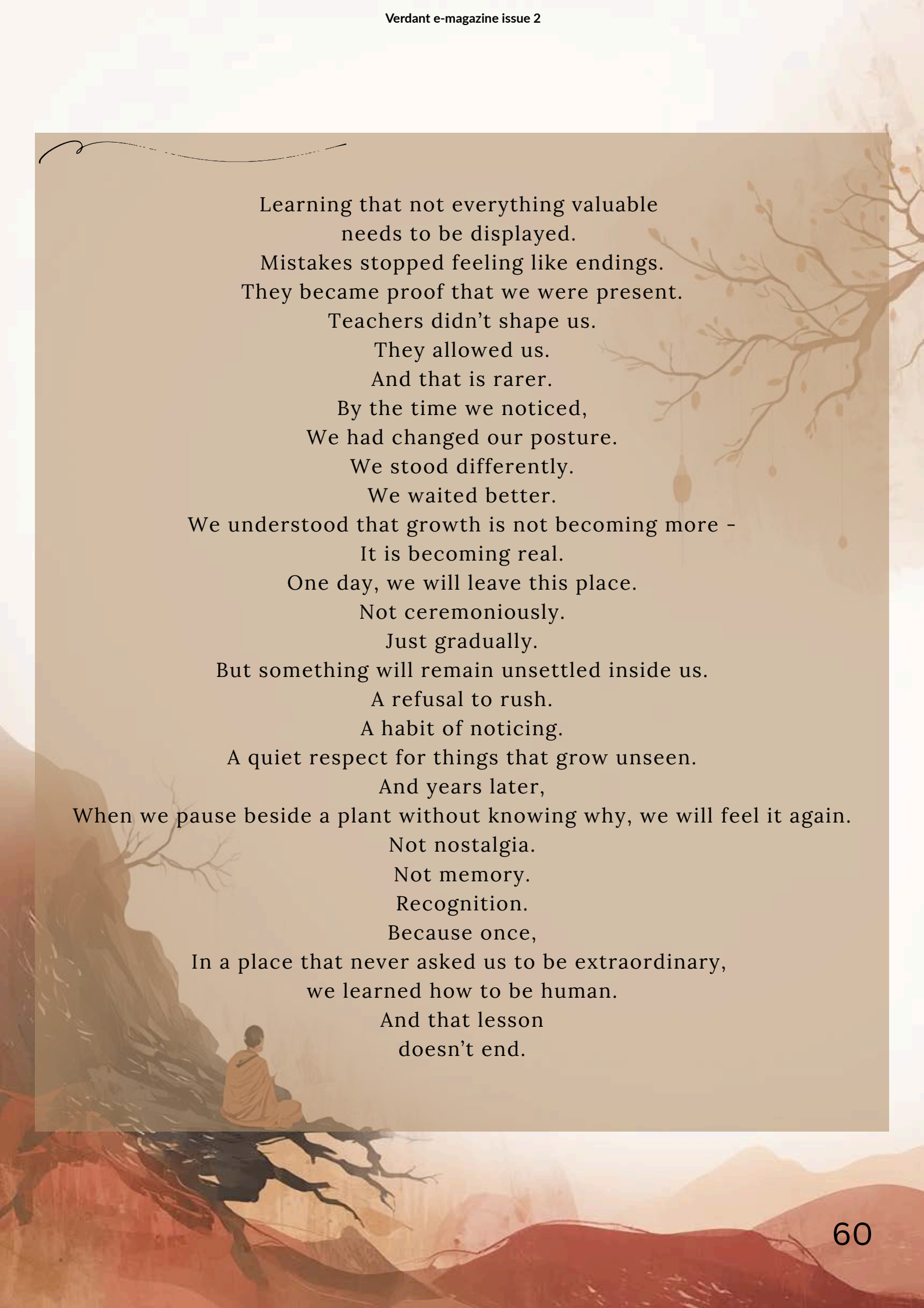
Roots didn't explain themselves.

They existed -

and somehow made that feel enough.

We began arriving less loudly.

Listening more than speaking.

A person in a brown robe is sitting on a large, gnarled tree branch that extends across the foreground. The background is a misty, hazy landscape with rolling hills and a soft, golden light. The overall mood is contemplative and serene.

Learning that not everything valuable
needs to be displayed.
Mistakes stopped feeling like endings.
They became proof that we were present.
Teachers didn't shape us.
They allowed us.
And that is rarer.
By the time we noticed,
We had changed our posture.
We stood differently.
We waited better.
We understood that growth is not becoming more -
It is becoming real.
One day, we will leave this place.
Not ceremoniously.
Just gradually.
But something will remain unsettled inside us.
A refusal to rush.
A habit of noticing.
A quiet respect for things that grow unseen.
And years later,
When we pause beside a plant without knowing why, we will feel it again.
Not nostalgia.
Not memory.
Recognition.
Because once,
In a place that never asked us to be extraordinary,
we learned how to be human.
And that lesson
doesn't end.

THE UNSEEN ERROR OF BEING



Khushbu Saha
FYUGP 4th Semester
Roll no : 24751100624

I was walking... just like any other day.
The ground beneath me was ordinary
dust, stones, life unseen.
Then I saw it
a tiny ant, moving with purpose
carrying a piece of its world on its back.
I don't know when my foot fell,
but when it did
her world ended, and mine... suddenly stopped.
For a moment everything went silent.
I stared at that dot of life, now still
and something inside me cracked open.
We call ourselves alive, aware, human
yet we walk over lives smaller than our thoughts
as if their existence was never meant to matter.
Maybe that's what hurts the most
how easy it is to destroy
how blind we are to the breath of another being.
That day I didn't just crush an ant
I crushed the illusion
that I am different from the world beneath my feet.
Because maybe...
somewhere in another form another life,
I too was that ant
running, carrying, living...
until someone like me didn't notice.
Being small doesn't mean being insignificant.
Every life no matter how tiny has purpose.



TIGER



Laimwn Brahma

FYUGP 6th Semester

Roll no : 751752310901

I don't want to return to that place, where memories still ache
Where my puppy's life slipped away and I couldn't see his face
No final goodbye, no last farewell, just a hollow, growing pain

A longing to see him once more, to hold him close again

In my mind's eye, I see him run, tail wagging with glee

Playing with us, full of life, a sweet, innocent spree

But now, those memories are all that's left, a bitter sweet refrain

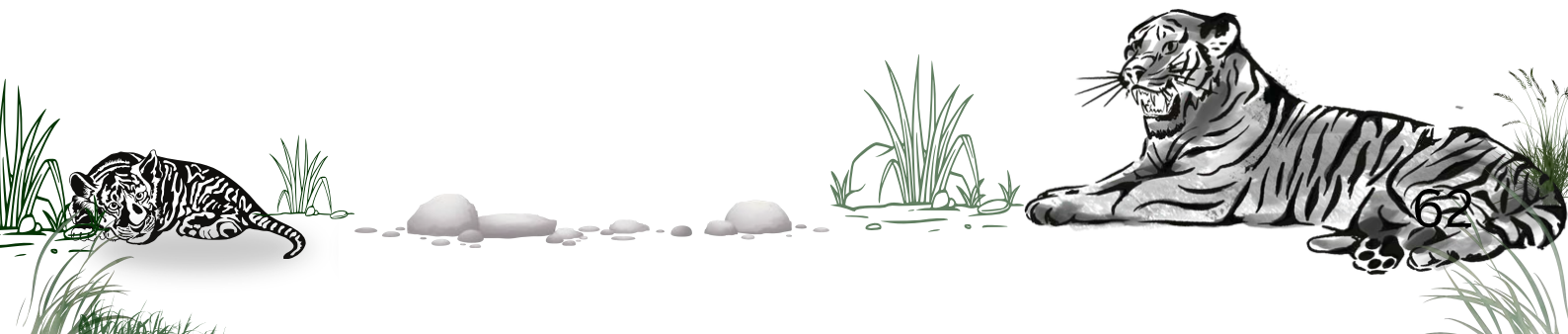
A remainder of what we had, and what we'll never gain

Saying goodbye, a farewell that was never meant to be

A last goodbye that was just a departure, a trip to the hostel, not a finality

But fate has other plans, and now I'm left with just this pain

A heart that's heavy, a soul that's lost, with no chance to say goodbye again



THE FLOWERS



Khushbu Saha
FYUGP 4th Semester
Roll no : 24751100624

I saw a flower today
still attached to the earth,
still breathing sunlight,
still whispering its soft fragrance
to the wind that held it gently.
Someone beside me said,
Let's pluck it
it will look pretty in someone's hand.
And in that moment
my heart tightened.
How do I explain
that beauty is not meant to be torn
for a moment of human happiness?
That a flower is not an object
it is a life
quietly blooming in its own universe?
When a hand reaches out to pluck it,
we call it a gift...
but the flower calls it
its last breath.
We don't see its slow dying –
the color fading,
the petals loosening,
the fragrance surrendering
to the air one final time.

Humans celebrate it.
Nature mourns it.
And the saddest part..!

We think we are showing love
by killing something
that only knew
how to live beautifully.
Sometimes I wonder...
if in another life
I was that flower
opening my heart to the sun,
only to be taken
by a hand that never understood
what it took for me to bloom.

MY LITTLE SEA SHELL

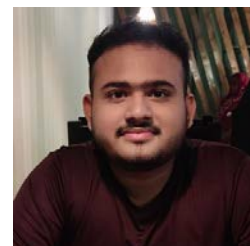


Shreyashi Das
FYUGP 2nd semester
Roll no : 2532000443

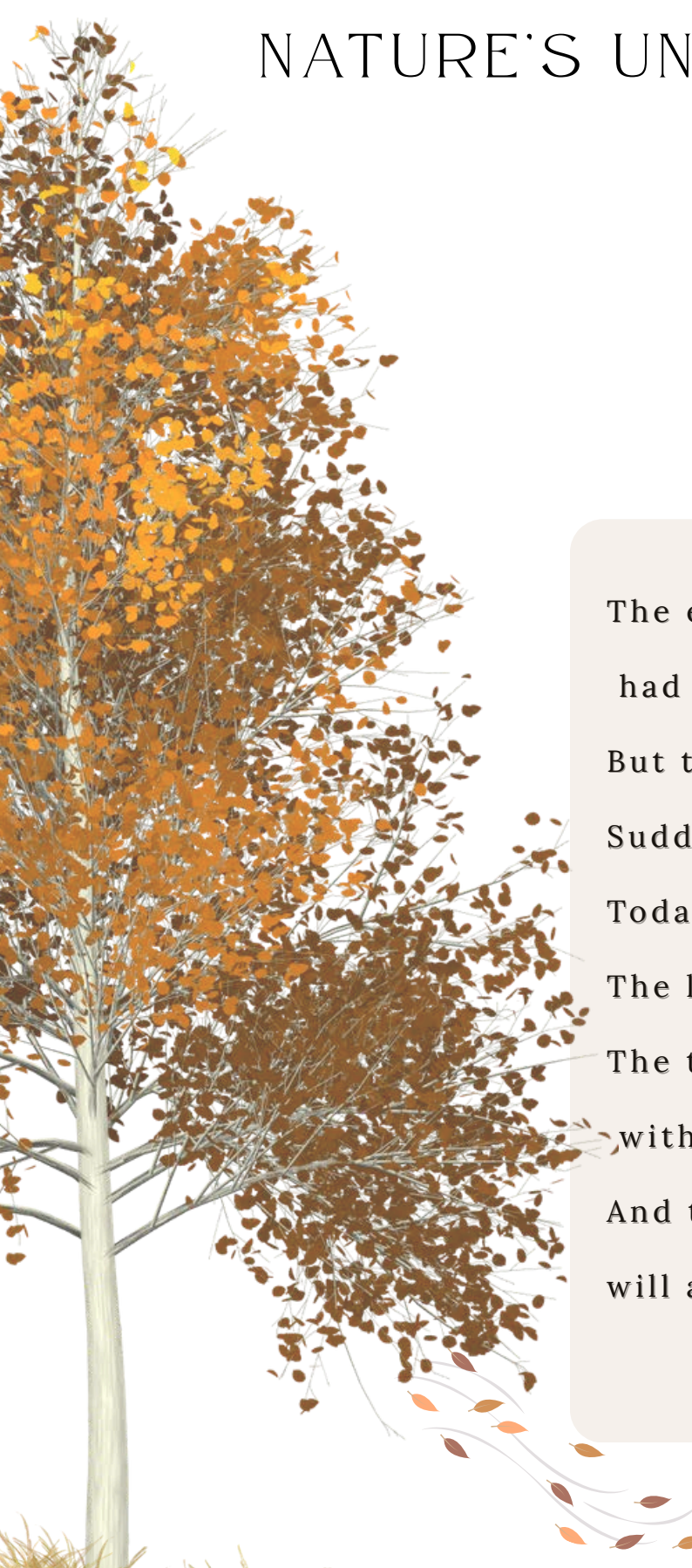
My little sea shell,
I keep it on my table,
Dry and quiet.
But once, long ago,
It lay near the shore
Among wet sand and plants of the sea.
My granddad brought it
From the Black Sea
And gave it to me without much thought.
But when I hold it close,
It feels like a small part of nature
Resting in my hand.
When I listen carefully,
I don't hear only waves.
I imagine tiny plants,
Floating algae,
And life moving silently in water.
Like trees keep their age in rings,
This shell too has its own history—
Grown slowly, layer by layer,
By time, salt, and living cells.
Now it stays with me
As I study plants and life,
Reminding me that
Even the smallest things in nature
Carry whole stories inside them.



NATURE'S UNENDING TALE



Omraj Dutta
FYUGP 2nd Semester
Roll no : 2532000957

A large, stylized tree with a light-colored trunk and branches, covered in dense, vibrant orange and yellow leaves. Some leaves are shown falling from the branches, creating a sense of movement. The tree is set against a plain white background.

The evergreen spring trees
had a beautiful story to tell,
But then the dancing leaves
Suddenly turned dead,
Today or some other day
The leaves will again blend,
The trees will eventually come up
with a new fascinating story,
And the new leaves
will again start dancing with glory.

COMMUNIQUE FROM THE TREES



Hasrin Samim Ullah
FYUGP 2nd Semester
Roll no : 2532000248

We note the species is concluding itself.
This was not proposed by us.

They named us lungs
and continued smoking.
They thanked shade
by widening roads.

Communication was attempted:
oxygen, fruit, restraint.
They replied with charts.

Several of us were removed mid-service.
Replacement promised.

We will proceed with silence.
It appears self-sustaining.

This is not punishment.
It is succession.



গতানুগতিক

শৰতৰ এটি ৰাতিপুৱা
হাতত কলম তুলি লিখিবলৈ বহিছো
কিন্তু শব্দবোৰে যেন খেলিছে
লুকাডাকু।

বিৰামহীন গতিত বৈ আছে কাষৰ নদীখন
হয়টো পানীৰ ঢৌত উটি গৈছে
মনৰ অপ্ৰকাশ্য ভাৱনাবোৰ।

অদূৰত সোঁৱা কোনোবা মাছমৰীয়াৰ
অস্পষ্ট কথোপকথন
ধানৰ পথাৰত কুঁৱলীৰ চাদৰ
ঘৰুৱা হালত গাঁৱৰ প্ৰাণ
ধাননিডৰাৰ মাজত বাজে জীৱনৰ সুৰ।

শূণ্য গছৰ ছাঁত অলস বতাহে ফুৰে
জীৱনৰ ৰঙত নাই কোনো মলিনতাৰ ভাৱ।
চিৰদিনিয়া হাঁহিৰে ভৰা মুখ
আকাশৰ তৰা যেন তেওঁলোকৰ
সপোনেৰে ভৰা।

সৰল জীৱন, সুগন্ধি সপোন
প্ৰকৃতিৰ বাহুৰ মাজত গতানুগতিক জীৱন।।
এয়াই আমাৰ গাঁওখন!
য'ত নাই স্বাৰ্থপৰতাৰ স্থান,
নাই একো যান্ত্ৰিকতাৰে ভৰা
আত্মকেন্দ্ৰিক মনোভাৱ।
আছে যদি কেৱল নিস্বাৰ্থ মৰম

~ মাধুৰ্য্য দত্ত

FYUGP ষষ্ঠ ষাণ্মাসিক
বোল নং : 751752310899

আৰু,
পাৰ নভৰা আত্মীয়তা।।
হয়টো নহ'ব পাৰোঁ আমিৰোৰ
ধনেৰে বলবান

কিন্তু;
মনৰ ভিতৰত পাহি মেলি ফুলি বৈছে
আনক আপোন কৰাৰ দুৰ্বাৰ হেঁপাহ।
আমাক নালাগে মিছা প্ৰতিশ্ৰুতি;
নালাগে কৃত্ৰিম ভালপোৱা
লাগে মাথোঁ
বিপদত এষাৰি মাত
কিয়নো!
আমিৰোৰ নিচেই মৰম আকলুৱা।



বিউটি তালুকদাৰ
FYUGP ষষ্ঠ ষাণ্মাসিক
বোল নং : 751752310904

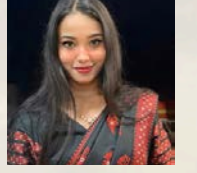
বৰষুণৰ অপেক্ষাত

গৰম দিনৰ আৰম্ভণি
বতাহো বলি আছিল,
গছজোপা হালি জালি নাচি আছিল,
চৰাই চিৰিকতি বোৰেও যেন গছৰ দালত
জিৰণি লৈ আছিল।

গাঁৱৰ আইতাসকলে গছৰ তলত বহি
বিয়নী মেল পাতি আছিল,
সকলোৰে মুখত কেৱল এটাই কথা "হেৰ' ইমান
গৰম পৰিছে এইবাৰ
আগতে ইমান গৰম নাছিল",
সকলোৱে তেতিয়া বৰষুণ এজাকলৈ বৈ আছিল

জুন মাহৰ আৰম্ভণি হ'ল,
বাৰিষা আহিবৰ সময় হ'ল,
বৈ থকা বৰষুণজাক আহিব ধৰিল,
বৰষুণজাক অহাৰ বাবে যেন সকলো বৰ সুখি,
মৰহি যোৱা গছ জোপাও যেন আকৌ জীয়াই
উঠিল।

বৰষুণ মোৰ বৰ প্ৰিয়,
আকৌ বৈ আছোঁ এজাক বৰষুণলৈ,
আকৌ জীয়াই উঠিব মৰহি যোৱা সকলো।



সেয়েহে সাগৰ মোৰ বৰ প্ৰিয়

তিনাৰাজী দাস
FYUGP চতুৰ্থ ষাণ্মাসিক
বোল নং : 24751100500

সাগৰ নাছিলো তুমি
নীল সাগৰৰ
নীলা জলৰাশি,
তুমি আছিলো
আচ্ছাদনবিহীন
চঞ্চলা
উন্মুক্ত
সকলোৰে বাবে খোলা
মিঠা পানীৰ জুৰিটি!
সেয়েহে ময়ো তেনেদৰেই
এন্ধাৰৰ পৰা ক্ৰমে মলিনতা লৈ,
মুৰটোও বুকুত লাগিছে ধৰি।

ৰাতিৰ এন্ধাৰতকৈ
ভয়াবহ জানা
মেঘৰ আঁৰত উদিপ্ত সূৰ্য,
পাক লগা ছায়া -মায়াৰে
চৌদিশ আচম্বিতা।
অন্ধকাৰ আচন্ন এই প্ৰহৰৰ
ক'ত যে জ্বলিছে
ক'তই জ্বলি-জ্বলি নিঃশেষ,
আনক পোহৰ বিলাই-বিলাই
অসংখ্য মমবাতি সদূশ
নিচাত ডগ-মগ
থৰ- থৰকৈ কপে শিখাটি।

সেয়েহে সাগৰ মোৰ বৰ প্ৰিয়,
ওপৰে- ওপৰে তোমাৰ চঞ্চলতা
ওঁঠ ফুটা হাঁহিঁ,
দিকবিদিক্ হেৰাই
তোমাৰ মোহাঙ্কতাত
হেজাৰ গভীৰতালৈ সোমাই যায়।
ভিতৰে-ভিতৰে
কিমান যে গহীন
কিমান গভীৰতম
জোখ লওঁতাজন সদায়েই শান্ত
তোমাৰ বাবে চিৰ অপেক্ষাৰত,
তোমাৰ সঁচা প্ৰেমি মই
তুমি যে মোৰ বৰ প্ৰিয়
তাতোকৈও প্ৰিয় তোমাৰ
এই বিশাল জলপৰিধি
সহজে গিলিব নোৱাৰা
ডিঙিত লগা লুণীয়া
অনন্ত জলৰাশি।



চন্দ্ৰিমা শৰ্মা
FYUGP দ্বিতীয় ষাৰ্মাষিক
বোল নং: 2532000365

প্রকৃতি

কোনেনো সাজিছে এই মনোমোহা প্রকৃতি,
সৰগৰ টুকুৰা ই যেন প্রতিকৃতি।
সেউজীয়া পাহাৰে আৰুৰা, চৰাই-চিৰিকটিৰে ভৰা,
নিজস্ব ভাৱ প্রকাশ কৰা ই এক পৰিস্ফুট নিজৰা।
হালধীয়া সোণাৰুজোপাই মেলিছে নতুনৰ জপনা,
নেওঁচিবলৈ প্রকৃতিৰ সপোনৰ সীমনা।
অসীমলৈ বৈ যোৱা শান্ত নদীখনি,
বাধা দিলে জীৱন গতিত হৈ যায় বিনাশিনী।
বৰ্ষাত আকুলতাৰে নচা তোমাৰ এটি ৰূপ হৈছে ময়ূৰী,
বহাগৰ আগমনত বজোৱা আনন্দৰ সুহৰি।
কোমল ফুলপাহিত আলফুলে নিজৰ পাখি পেলাই,
চাৰিওদিশে প্রফুল্লতাৰ বীজ ছটিয়ায়।
মাতৃৰ দৰে জীৱক কৰি আলিঙ্গন,
অচল হোৱা হৃদয়ক পুনৰ দিলা এক নতুন স্পন্দন।





দৃষ্টি প্ৰিয়া ভৰদ্বাজ
FYUGP চতুৰ্থ ষাণ্মাসিক
ৰোল নং: 24751100557

সেউজীয়া সপোন -

তাতেই হালধীয়া বেলিফুলে হাঁহিছে,
য'ত অস্তগামী সূৰুযৰ ৰঙাই
নীলাৰ আড়ম্বৰতাত থমকিছে।

দেওহাঁহ জাকে বিচাৰি ফুৰিছে সিহঁতৰ সেউজীয়া ঘৰ,
এতিয়া যে সিটো পাৰে
কেৱল উদং পথাৰ,
উকা আকাশত কাউৰীৰ
মুক্ত হুংকাৰ।

নিলাজ উদং পাহাৰক শুধিলো ,
হেৰৌ, মস্ত উদং পাহাৰ!
তোৰ সেউজীয়াক ধূসৰ কৰিলে কোনে?
উত্তৰত পালোঁ মাথোঁ হুমুনিয়াহ!

সিপাৰে দেখিলো দানৱৰূপী চলন্ত যন্ত্ৰবোৰৰ,
কুৰুকি কুৰুকি সিহঁতৰ বুকুত বিস্কাৰ দুৰ্ঘোৰ হীমবাহ।

-মানৱ জাতিৰ নিৰ্দয় প্ৰকৃতি বিধ্বংসীলীলাৰ কবলত পৰা
গছ গছনি, বননি, পাহাৰ আৰু নিৰীহ প্ৰাণীলৈ উচৰ্গিত মোৰ
এই কবিতা।



এটি বীজৰ যাত্ৰা

কংকনা দাস

FYUGP চতুৰ্থ ষাণ্মাসিক

বোল নং: 24751100798

সৰু নিঃশব্দ
আশাৰে পৰিপূৰ্ণ
এটি বীজ।

মাটিৰ বুকুত ব্যাকুল অপেক্ষা
আকাশৰ বং চাবলৈ।
ধৈৰ্য্য, একাগ্ৰতাক সাৰথি লৈ
অংকুৰিত হয় জীৱন জীয়াবলৈ।

পানীৰ স্পৰ্শ, ব'দৰ স্নেহ,
কোমল বায়ুৰ পৰশে,
জিপাল কৰা এক অদৃশ্য হাঁহি।
এতিয়া যেন বাংঢালী চঞ্চলা
হ'ব খুজিছে অংকুৰ আকাশমুখী।

এই যাত্ৰাও যেন সহজ নহয়!
চকুৰ আঁৰৰ যাত্ৰাই
সেউজীয়া ধৰণী সজাই,
পাতৰ সুৰে জীৱন ৰচাই।

সহজ যে নহয়!
পাতৰ নিঃশব্দ কাৰখানাত
জীৱন জীয়াৰ প্ৰচেষ্টা।

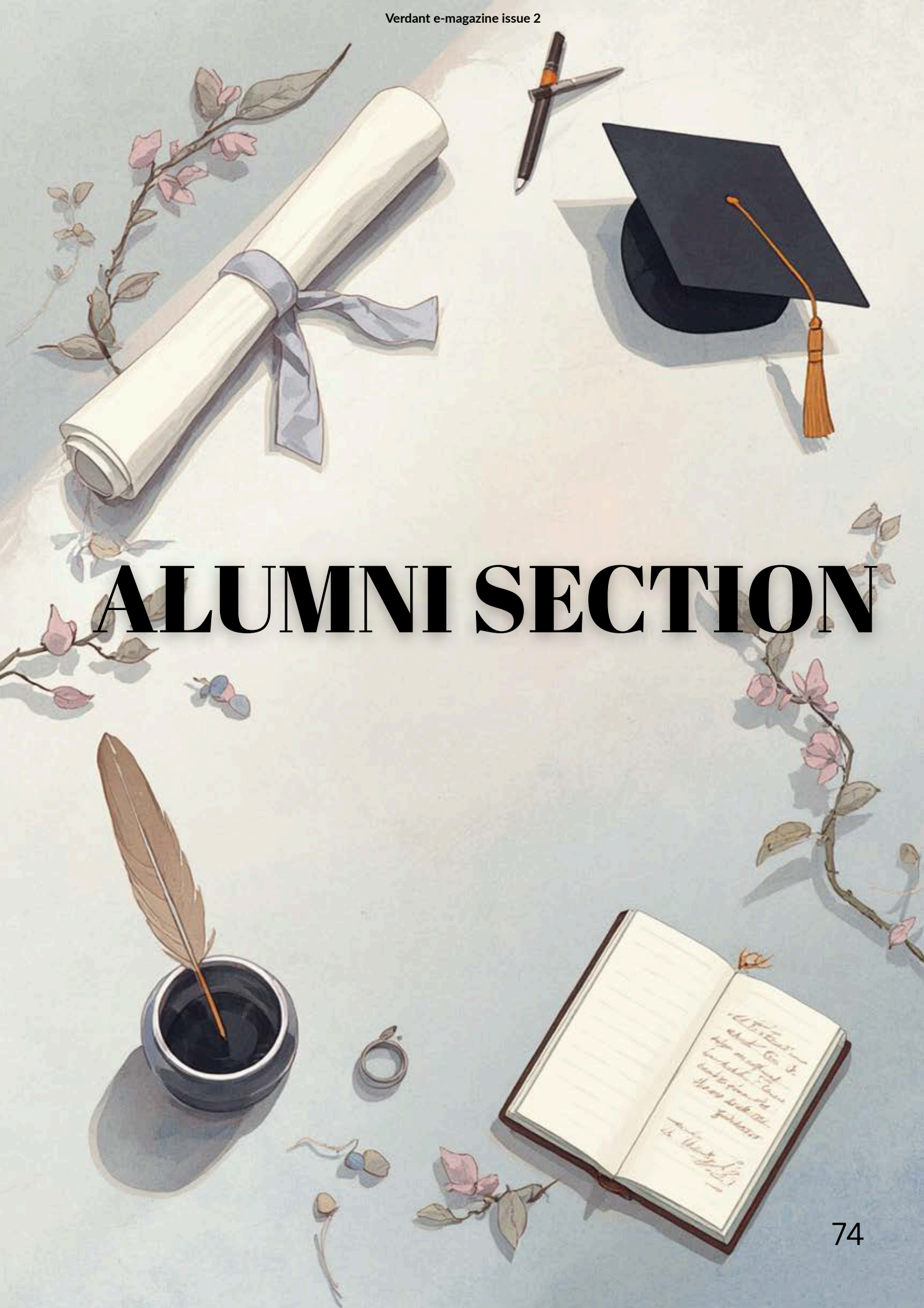
অক্লিজেনৰ উপহাৰ
চহকী পৃথিৱীৰ ভঁৰাল,
বীজে শিকাই ত্যাগেই জীৱনৰ
উজ্বল কাল।

উলাহত ফুলৰ কিৰিলি
সৌন্দৰ্য্যৰ প্ৰতীক,
দায়িত্বৰ প্ৰতীক,
জন্ম হয় নতুন বীজ।
ন-যাত্ৰাৰ আকৌ যেন আৰম্ভণি।

শিপাই কয়-স্থিৰতাৰ কথা,
ডালে কয়-উত্থানৰ কথা,
সঁচা, সহজ যে নহয় এই যাত্ৰা।

সহজ যে নহয়!
অন্ধকাৰৰ পৰা পোহৰলৈ
আশাৰ ৰেঙণি লৈ,
ই যে গাই যায়-সপোন আঁৰৰ সংগ্ৰামৰ
গাথা।

শিকাই-বিশ্বাস আৰু ধৈৰ্য্যৰে
গাঁথিব পাৰি জীৱন ফুলৰ মালা।



ALUMNI SECTION

Janaki Ammal – A Trailblazer In Botanical Innovation



Nazar Roy
2022-2025 Batch
M. Sc. in Botany
Gauhati University

E.V. Janaki Ammal, also known as the mother of Indian Botany, was born in 1897 in Kerala, India. She obtained an honours degree in botany from Presidency College in Madras (present-day Chennai) and then moved to the University of Michigan in 1924. She was the first Indian woman to earn a doctorate in Botany from the University of Michigan in 1931.

Janaki Ammal's expertise extended beyond traditional botany, particularly into cytogenetics and plant breeding- She joined the Sugarcane Breeding Station at Coimbatore as a cytogeneticist to work on sugarcane biology. She manipulated polyploid cells by crossing *Saccharum officinarum*, native to New Guinea, with other grasses like maize, millets, and bamboo, and studied the geographical distribution of sugarcane varieties. She played a crucial role in breeding sugarcane varieties suited to India's climate, improving yield and resilience through hybridisation with *Saccharum spontaneum*, an indigenous sugarcane variety.

Despite facing gender biases in her field, she was invited by the Royal Horticultural Society to work as a cytologist at their Wisley laboratory, becoming the first female scientist in the society. At Wisley, she conducted cytological studies on various plants, including magnolias. A variety with small flowers, *Magnolia kobus* 'Janaki Ammal', was named in her honour. She studied the chromosome numbers and ploidy of various garden plants which helped in understanding the evolution of species and varieties. Along with C.D. Darlington in 1945, she published a book titled 'The Chromosome Atlas Of Cultivated Plants' which included most of her works on many species.

Her works gained her a reputation, and the Indian government invited her to reorganise the Botanical Survey of India, and she was appointed as the first director of the Central Botanical Laboratory at Allahabad. Even after retirement, she remained active in research, focusing particularly on ethnobotany. She continued her work on various other genera of plants, including brinjal.

The Government of India awarded the Padma Shri to Janaki Ammal in 1977. The Ministry of Environment and Forestry of the government of India instituted the National Award on Taxonomy in 2000 in her name. *Janakia aryalpathra*, an endemic plant species of the Western Ghats of Kerala, is named after her. *Sonerila janakiana* and *Dravidogecko janakiae* are also named in her honour.

She was a strong advocate for the protection of the Silent Valley Forest from a hydroelectric project. But before she could see the successful preservation of the rare varieties of orchids and indigenous plant varieties that are housed by this national park, 'the woman who sweetened the nation' died on 7th February 1984.

At a time when women faced societal constraints, Janaki Ammal broke barriers in botany and cytology, inspiring generations of women in science. Her groundbreaking discoveries laid the foundation of modern plant breeding techniques. Throughout her career, she proved that the capacity of a scientist is determined by their mettle and that their legacy is a product of innovation and independent thinking. Ammal once said, "My work is what will survive." Indeed, her legacy endures through the richness of India's sugarcane fields, the preserved Silent Valley, and in the magnolias and roses that bloom in her name.

সুৰু



কস্মিতা মানসি দাস
2022-25 Batch
M.Sc. in Botany
B Borooah College

এতিয়া গভীৰ শীতত আকাশ খনৰ নৈশ নিবাসী তৰাবোৰ,
ফুটি উঠে ক'লা আঁচল খনত জিকমিকাই।
ৰ'দে তাকৰ সময়ৰ বাবেহে ডুমুকিয়াই,
চকু ভালকৈ মেলোঁতেই বেলি ডুবে।

ৰাতিৰ দুৱাৰদলিত জোনে প্ৰৱেশ
কৰিলেই নহয়!

সন্ধ্যাবেলা অলপমান ততাতৈয়া আৰু চৌদিশে হুলস্থুল।
এয়া আকৌ একেই অৱস্থা,
নীৰৱতা বিৰাজমান হ'লেই আৱৰি ৰখা জাৰকাপোৰৰ তলত মূৰ গুজি।

আন্ধাৰত পাতৰ আঁৰে-আঁৰে;
কেৱল হুৰহুৰাই বতাহজাক বলি
মুক্ত আকাশৰ তলত বিলাইছে স্থিৰতাই স্থিৰতা
আৰু শূনিব পাইছোঁ ফেঁচাৰ উৰুলি।
এতিয়া গভীৰ শীতত আকাশ খনৰ নৈশ নিবাসী তৰাবোৰ,
ফুটি উঠে ক'লা আঁচল খনত জিকমিকাই।
ৰ'দে তাকৰ সময়ৰ বাবেহে ডুমুকিয়াই,
চকু ভালকৈ মেলোঁতেই বেলি ডুবে।

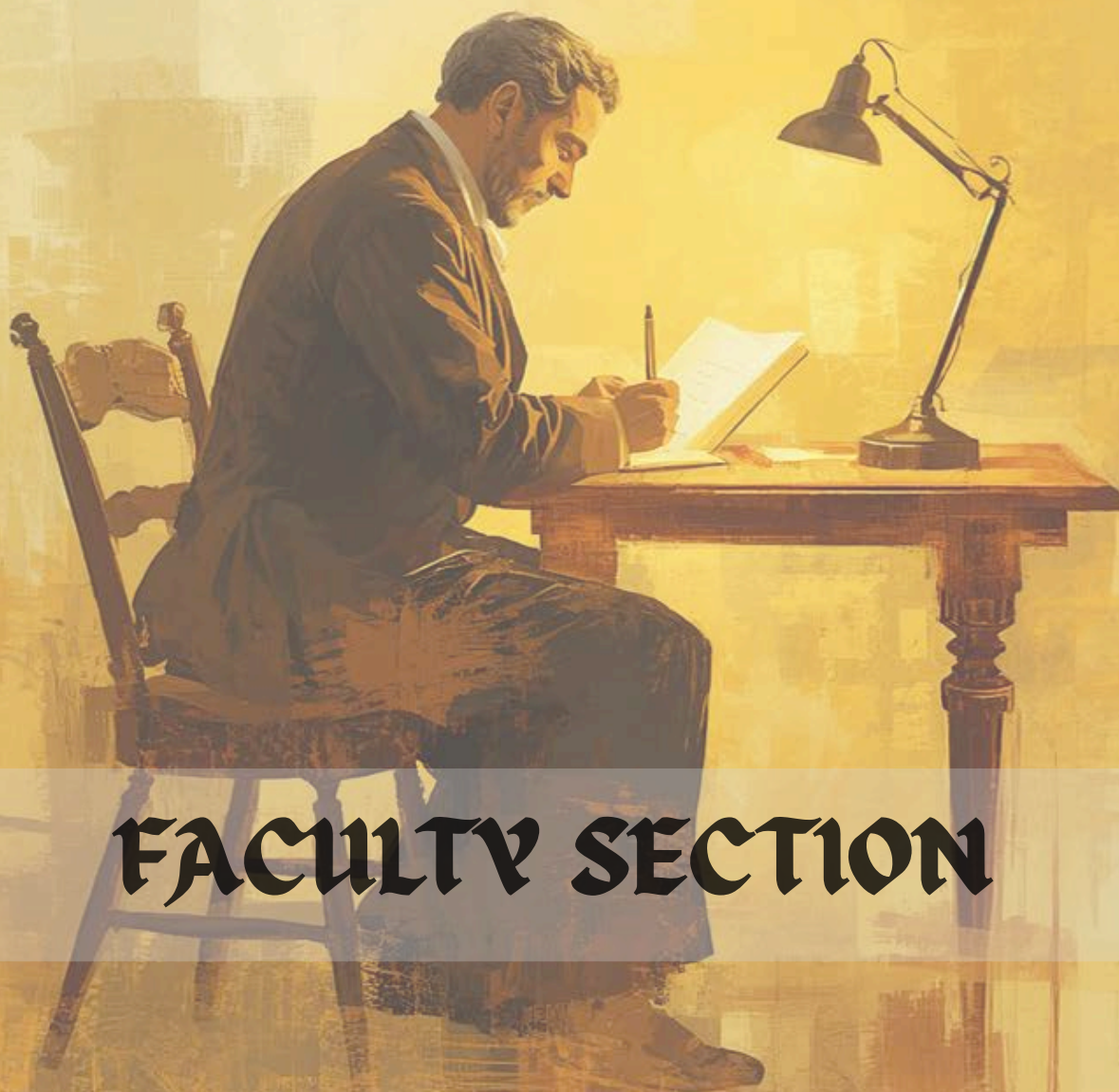
ৰাতিৰ দুৱাৰদলিত জোনে প্ৰৱেশ
কৰিলেই নহয়!

সন্ধ্যাবেলা অলপমান ততাতৈয়া আৰু চৌদিশে হুলস্থুল।
এয়া আকৌ একেই অৱস্থা,
নীৰৱতা বিৰাজমান হ'লেই আৱৰি ৰখা জাৰকাপোৰৰ তলত মূৰ গুজি।

আন্ধাৰত পাতৰ আঁৰে-আঁৰে;
কেৱল হুৰহুৰাই বতাহজাক বলি
মুক্ত আকাশৰ তলত বিলাইছে স্থিৰতাই স্থিৰতা
আৰু শূনিব পাইছোঁ ফেঁচাৰ উৰুলি।

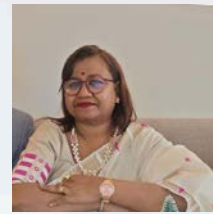


Professors' Diary



FACULTY SECTION

BONSAI : A Living Art, Grown With Patience And Its Ethical Concerns.



Dr Deepika Devi, Associate Professor,
Department of Botany,
Arya Vidyapeeth College (Autonomous)

Bonsai is the ancient practice of cultivating miniature trees that mirror the beauty and structure of full-sized trees found in nature. Originating in China over a thousand years ago and later refined in Japan, bonsai is both a horticultural technique and an art form. Its purpose is not to stunt growth but to guide it, shaping a living tree into a natural yet expressive composition.

Growing a bonsai requires patience, precision, and ongoing care. Techniques such as pruning, wiring, repotting, and root trimming help maintain the tree's size and encourage balanced growth. The choice of pot, soil, and tree species also influences the overall aesthetic. Popular varieties include juniper, maple, pine, and Ficus, each offering unique textures and forms.

Beyond its visual appeal, bonsai embodies mindfulness. Enthusiasts often view the process as meditative, fostering a deeper connection with nature.

In modern times, bonsai has become a global hobby, appreciated for its blend of artistry and tranquility. Whether displayed in homes or gardens, a bonsai tree serves as a living reminder of harmony, balance, and the beauty of slow, deliberate growth.

However, despite its aesthetic and cultural appeal, the practice of Bonsai has also faced criticism and controversy. The debate surrounding Bonsai canters on ethical, cultural, and environmental concerns that challenge the traditional appreciation of this ancient art form.

One of the most common controversies associated with Bonsai relates to ethics and plant welfare. Critics argue that shaping a tree into an artificially miniaturized form goes against the natural growth process of the plant. Techniques such as root pruning, wiring branches, restricting growth in small containers, and controlling nutrients are sometimes seen as restrictive or even harmful. Opponents believe that bending and trimming living plants for decorative purposes prioritizes aesthetics over the plant's natural well-being. Supporters of Bonsai, however, counter that these practices are carried out with care and expertise. Skilled Bonsai artists emphasize that the trees are not harmed but are nurtured meticulously, often living longer than their naturally growing counterparts.

Another area of controversy is the cultural appropriation debate. Bonsai is deeply rooted in East Asian cultural and philosophical traditions, particularly Zen Buddhism. Some people argue that its commercialization in other parts of the world removes it from its historical and spiritual context. When Bonsai is mass-produced for decorative purposes, its cultural significance may be overlooked or diluted. This raises questions about the respectful adoption of cultural practices and whether Bonsai is being treated merely as an ornamental trend rather than a meaningful art form. However, many contemporary practitioners emphasize cultural appreciation rather than appropriation, acknowledging the origins of Bonsai and preserving traditional methods.

The environmental impact of Bonsai cultivation also contributes to ongoing controversy. While many Bonsai enthusiasts grow their trees responsibly, commercial production can sometimes involve practices that are not sustainable. For instance, wild plants or seedlings may be harvested illegally to create Bonsai, causing ecological disruption. The use of synthetic fertilizers, pesticides, and non-biodegradable containers in some commercial setups further raises environmental concerns. Conversely, responsible Bonsai artists promote sustainable growing practices, including using ethically sourced materials, organic soil, and eco-friendly techniques.

Lastly, the Bonsai controversy also touches on philosophical questions regarding humans' relationship with nature.

Some critics feel that Bonsai represents an attempt to dominate and control nature, shaping it into human-defined forms. They view the art as a symbol of human manipulation rather than harmony. Supporters disagree, arguing that Bonsai represents deep respect for nature. By caring for a Bonsai for decades, practitioners develop patience, mindfulness, and emotional connection with the plant.

In conclusion, the controversy surrounding the Bonsai plant reflects differing perspectives on ethics, culture, environment, and philosophy. While it continues to inspire debate, Bonsai remains a cherished art form for many, symbolizing beauty, discipline, and an enduring bond between humans and nature.



Source:

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Interview with Dr. Deepika Devi

Senior most faculty of the Department of Botany and Two-times Head

“Hello Ma’am,

We are from the Editorial Board of the 2nd Edition of VERDANT e-magazine, and we would be honored to ask you a few questions about your journey, covering your student life, your professional journey, and your experiences in the Department of Botany.”

1. “Could you tell us about your journey-your school life, college days, and the experiences that shaped you as a student?”

Answer : My journey as a student has been a blend of curiosity, discipline, and growth. During my school life, I developed a strong interest in science, especially subjects that connected us to nature.

2. “Ma’am, what first inspired you to choose Botany as your field of study? Was there a defining moment that made you fall in love with the subject?”

Answer : From a young age, I enjoyed observing trees, flowers, and seasonal changes around me. Botany felt meaningful because it connects science with nature and sustainability. Since then, my love for understanding plant life has only grown stronger, guiding my academic journey. I am basically a nature lover and Gardening is my hobby.

3. “Is there a story behind how you got your position at Arya Vidyapeeth College? What was that experience like?”

Answer: I have memorable and rewarding experiences to getting this job in this college. After completing my higher studies in Botany, I was determined to pursue teaching and research. When the opportunity arose, I applied with hope and dedication. The selection process was challenging, involving interviews and academic evaluation, but it also gave me a chance to reflect on my passion for education. When I finally received the appointment, it felt

chance to reflect on my passion for education. When I finally received the appointment, it felt like a dream fulfilled. I have joined in my job in the very auspicious day the 5th September “Teachers Day” which was a golden moment for me throughout the life.

4. “Could you take us back to your first day at Arya Vidyapeeth College? What were your initial thoughts and feelings when you joined the institution?”

Answer: My first day at Arya Vidyapeeth College is still vivid in my memory. Though I served as an Assistant Professor in Cotton College (Now Cotton University) for the first time, I have remember the first day experience in Arya Vidyapeeth College very well. As I stepped into the classroom for the first time, I felt a deep sense of responsibility and purpose. Seeing curious young faces looking up to me was both humbling and motivating. That day marked the start of a meaningful journey, and I knew I was stepping into a place that would shape my identity as a mentor.

5. “At the time you joined, you were the only female teacher in the Department of Botany. How did that feel, and what was the environment like?”

Answer: Being the only female teacher in the Department of Botany at that time was both challenging and empowering. When the time passes I gained confidence and built strong professional relationships with colleagues and students. The experience made me more resilient and determined, and it remains a proud chapter in my journey as an educator and mentor.

6. College life is often remembered for its lighter moments. Are there any funny or heart-warming memories from college or departmental trips that still make you smile?

Answer: College life was filled with many light-hearted and memorable moments, especially during departmental trips and fieldwork.

7. Could you share a particularly memorable- or perhaps slightly chaotic experience from a departmental field trip?

Answer: One of the most memorable and chaotic moments from our Botanical field trip happened in Darjeeling, Sikkim, perhaps in the year 2002 or 2003. In a lively public gathering filled with students and people from different disciplines, it was the simple mention of *Ginkgo biloba* that instantly united the botany students. While others saw just a plant name, we exchanged knowing smiles and laughter. That single word carried memories of lectures, field trips, herbarium sheets, and late-night study sessions. Someone softly mentioned “living fossil,” and suddenly we were all part of an unspoken bond. In that moment, *Ginkgo biloba* was more than a species—it was a symbol of shared passion, an identity, and friendship that connects every botany student. This was really a golden and significant memory I had experienced among so many memorable and funny moments during my field trip with students.

8. You have served as the Head of the Department twice in this prestigious institution. How did it feel to shoulder that responsibility, and how do you reflect on that phase today?

Answer: Serving as the Head of the Department twice at Arya Vidyapeeth College was both an honour and a profound responsibility. Leading the department meant balancing academics, administration, and mentorship, which required patience and thoughtful decision-making. I focused on strengthening teamwork, encouraging research,

and maintaining a supportive environment for students and colleagues. Though the role came with challenges, it also brought immense satisfaction as I witnessed collective growth and achievements. Looking back today, I feel grateful for that phase. It shaped my leadership skills, deepened my commitment to education, and remains one of the most fulfilling chapters of my academic journey.

9. How would you describe your personal and professional growth throughout your journey in the Department of Botany at Arya Vidyapeeth College?

Answer: My journey in the Department of Botany at Arya Vidyapeeth College has been a deeply transformative experience for me both personally and professionally. Professionally, I grew through teaching, research, and administrative responsibilities, each shaping my life. Personally, the experience taught me patience, empathy, and the value of collaboration. Looking back, the department has not just been a workplace but a nurturing space that helped shape my identity and purpose.

10. During your tenure as HOD, what were some of the key changes or developments you were most involved in?

Answer: During my tenure as Head of the Department at Arya Vidyapeeth College, I was closely involved in several meaningful developments. I focused on strengthening academic quality by updating the curriculum and encouraging innovative teaching methods. During my Headship tenure, the department got the “Star Department Status” by the Department of Biotechnology, Ministry of Science and Technology, Government of India in the Year 2019, for five years. So I have got the opportunity to organise a remarkable number of National, International and Regional level

Answer: During my tenure as Head of the Department at Arya Vidyapeeth College, I was closely involved in several meaningful developments. I focused on strengthening academic quality by updating the curriculum and encouraging innovative teaching methods. During my Headship tenure, the department got the “Star Department Status” by the Department of Biotechnology, Ministry of Science and Technology, Government of India in the Year 2019 for five Years. So I have got the opportunity to organise a remarkable number of National, International and Regional level Seminar, Symposium, Symposia and workshop to enhance the academic quality of the department along with the exposure of the students. In last year 2025, We have proudly launched an e magazine “VERDANT’ which was really a proud moment and achievement for Botany family of Arya Vidyapeeth College.

11. What do you consider to be your proudest achievement for the department during your tenure?

Answer: One of my proudest achievements for the department was contributing to its steady academic growth while preserving a strong sense of unity and purpose. Another important aspect was fostering teamwork within the department and maintaining a student-friendly environment. During my last year of headship, I have received another administrative responsibility to serve the Department and College in a better way. I had been appointed as a Dean, Faculty of Sciences in the College for one complete year. This was my highest responsibility and proudest achievement during my service life in this college.

12. What is your perspective on VERDANT as a departmental e-magazine? Do you believe it can effectively foster a deeper interest in Botany among students?

Answer: I believe VERDANT is a wonderful and vibrant initiative that reflects the creativity and academic spirit of the department. As a departmental e-magazine, it provides students with a platform to express their ideas, share research insights, and explore Botany beyond textbooks. Such initiatives encourage curiosity, originality, and digital proficiency of the students. I truly feel that VERDANT can inspire students to look at Botany from a broader perspective.

13. Finally, what advice would you like to give to present and future students of Botany who aspire to grow academically and personally in this field?

Answer: To present and future students of Botany, my advice is to stay curious and observant, because nature is the greatest teacher. Do not limit your learning to classrooms or textbooks—explore the outdoors knowledges. Develop scientific thinking along with environmental responsibility. With passion and perseverance, Botany can shape both your academic journey and personal growth. Thank you.

Thank you for sharing your experience ma’am.

[TEAM VERDANT]

The Language Of The Genes And The Gene(s) Of Language



Samrat Bora, Assistant Professor,
Department of Botany,
Arya Vidyapeeth College
(Autonomous)

The Language of the Genes and the Gene (s)of Language. They say that the language event horizon is quite shallow, going back just to a maximum of only 18000 YBP(years before present), that is, the lower Palaeolithic to upper Neolithic period. And that of written records of language is even shallower, going back around 5000 YBP(years before present)

But then we all know that it is language, the singular phenomenon that made us connect with each other, spread our feelings, ideas and all concepts, all leading to the survival of our kind, the humans. It made us hang on by the skin of our teeth during evolutionary brinks, bottlenecks and apocalyptic disasters. All these are just ideas, strategies, tactics of survival, along with defence and pre-emptive strikes for survival victories could be communicated among each and very member of the prehistoric harder and hunter gatherers.

The greatest tool in our arsenal to further our pathways of love or hate and to drive us as a species was the genesis of language and it's evolution. But then, as language started to diversify due to geographical distance and isolation(the two main drivers being the same as those of evolution and speciation),it led to distancing between the myriad newly evolved linguistic communities, the "Evolutionary Tower of Babel "event, thereby extending the spectrum of diversity of our species, so far as the context of language is concerned.

But then two questions need to be addressed:

The first is the singular most important molecular event that made us unique and use language as a vocal sign to communicate.

In fact, the whole matrix of the cultural foundation of humans as a species lies in the evolution and development of the *FOXP2* gene. This gene was, for a long time, the candidate gene for speech and language of the human species. Its discovery was due to a severe language disorder in a British family who were afflicted for three generations. Linguist Khardem, along with Oxford geneticists Fisher and Monaco, are credited with the discovery of the exact loci or location of the *FOXP2* gene on the long arm of chromosome 7(7q31) in the year 1998.

The Forkhead box protein P2 or *FOXP2* gene is responsible for the development of the human brain, lungs and the intestinal organs.

FOXP2 is a member of the forkhead box family of transcription factors, proteins that regulate gene expression by binding to DNA. All these indicated that it was a multitasking gene. But then there is more, for it came to be known that this specific gene was involved in mimicry in mammals and echolocation in bats.

Here comes the second question: What is the language of the gene or genes?

Genes have the three-letter codes for synthesising proteins and several types of RNAs. This is achieved by a two-step process of transcription and translation.

Transcription or simply copying a DNA nucleotide to an RNA nucleotide. These are two very similar nucleotide language families analogous to Assamese and Bengali. Just as we differ into two main letters, so do the DNA and RNA differ into two main letters, Thymine (In case of DNA) or Uracil (In case of RNA).

Translation leads to the exact change of language from that of the nucleotides to the language of amino acids that make polypeptides or simply proteins.

By analogy, it's like the two languages of Assamese and Tamil, where there is a need for a translator. In the molecular case, it is the ribosome and a host of protein-based factors that are the translators of the two-dimensional transcription information into three-dimensional proteins. And this is how the language of the genes are.

In the year 2002, the 2022 Nobel Laureate Svante Paabo and his team at the Max Planck Institute of Evolutionary Anthropology found that two functional copies of the *FOXP2* allele are required for the acquisition and development of normal spoken language. They went about by sequencing the complementary strands of DNA that were used evolutionarily in the encoding of the *FOXP2* protein in the chimpanzee, gorilla, orangutan, rhesus macaque and mouse, and compared them with the human cDNA. They found that the human variant was unique. In other words, the team also investigated intraspecific variation of the human *FOXP2* gene. Here, they found that human *FOXP2* contains changes in amino acid coding and a specific pattern of nucleotide polymorphism or diversity that seemed to strongly suggest that the *FOXP2* gene was the target of selection pressure during language usage development and human-specific evolution.

But then this is not all. There are many more layers to language and the language gene(s), perhaps! Rockefeller University researcher Robert B. Darnell found that a modern variant of a gene with a specific mutation, when put inside mice, changed their ways and sounds of calling each other became different. This was the *NOVA1* gene mutant found in humans. As a gene, it produces an RNA-binding protein in the brain that is crucial for neural development and motor control. A mutation in the *NOVA1* might have given human, i.e. *Homo sapiens sapiens* the advantage over its cousins, the Neanderthals and the Denisovans. Unlike the mutations in the *FOXP2* gene that produced a language (speech) impaired family in Britain.

Again, when this same *NOVA1* gene was put in baby mice, they cried in a very peculiar manner when separated from their mothers, whereas when put inside adult males, it made them emit some ultrasonic mating calls having exceptional sound patterns.

To get corroborative evidence, they analysed the *NOVA1* gene variant in ancient DNA samples in online repositories; they found that they didn't have the human-specific DNA mutation.

As a *FOXP2* vs *NOVA1* gene discourse as a gene and gene product, *FOXP2* came much earlier, as evident from the sequences found in earliest mammals and birds that enabled these groups to make sounds like singing in birds and the growl of a gorilla and other ape species, and echolocation in bats, besides being present in tissues of lungs, stomachs, indicating that selection pressure has them in such tissues could be due to some functionality, apart from its use in the vocal chords. In other words is used in a wide-ranging spectrum.

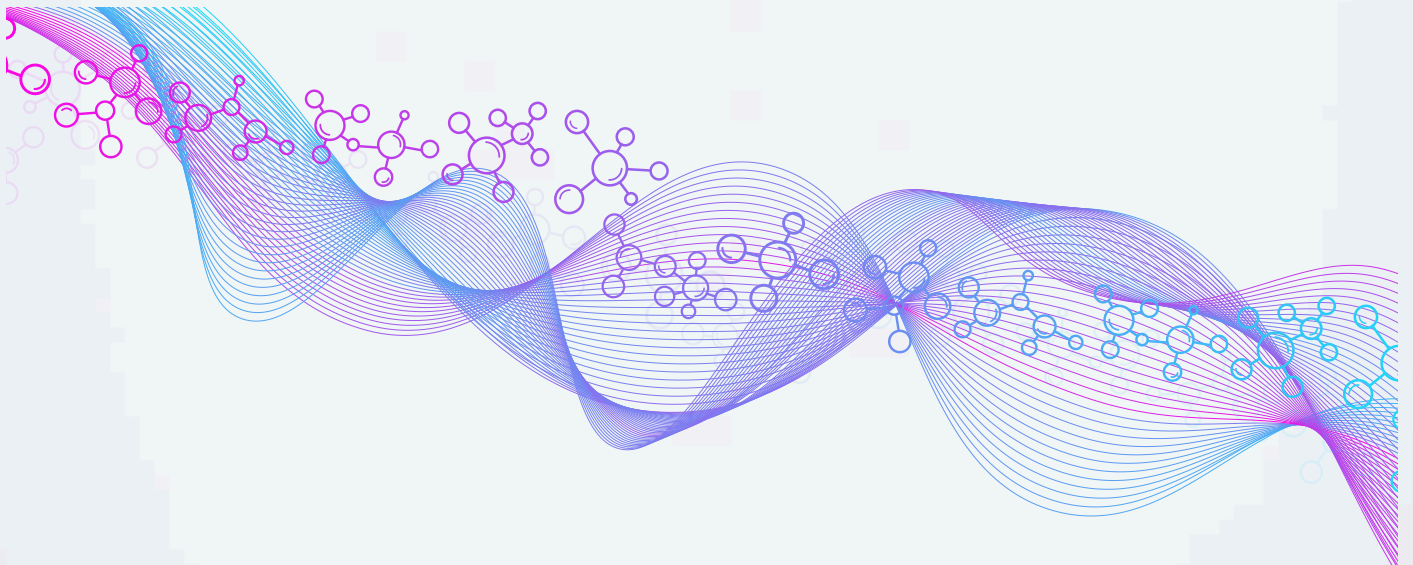
But the *NOVA1* gene product is more focused and is specific to the developing the faculty of speech.

In this regard, the work of both the researchers, Pabo and Darnel must be crucial to the evolution of language in humans.

Later Svante Paabo and his team completely sequenced the Neanderthal (Close cousins of

Homo sapiens) The genome and the Denisovan (another cousin of the human species) genome.

He was awarded the Nobel Prize for his seminal work on the Neanderthal genome. But that is another story that needs to be told at another time.



ভূপেন দাৰ দুটি গীত: এক অনুভৱ



সত্য নাথ দলে, সহযোগী অধ্যাপক
উদ্ভিদ বিজ্ঞান বিভাগ, আৰ্য বিদ্যাপীঠ
মহাবিদ্যালয় (স্বায়ত্বশাসিত)

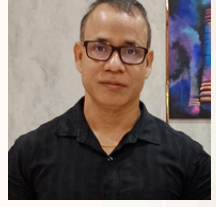
সুধাকণ্ঠ ভূপেন হাজৰিকাৰ গীতসমূহত অসমীয়া কেঁচা মাটিৰ সু-গোন্ধ বিৰাজমান। অসমীয়া নিভাজ শব্দৰ উচ্চাৰণ যদি নৱ প্ৰজন্মই শুদ্ধকৈ শিকিব বিচাৰে তেনেহ'লে মই ভাবো ভূপেন দাৰ অসমীয়া গীতসমূহ ভালদৰে শুনিলেই হ'ল। আপুৰুগীয়া যাউতিয়ুগীয়া অসমীয়া শব্দৰ ব্যৱহাৰ, সঠিক আৰু স্পষ্ট উচ্চাৰণ, সেইসমূহৰ সংৰক্ষণ তেখেতৰ গীতত সুন্দৰকৈ হৈছে, তাত কোনো সন্দেহ নাই। এই ধৰাত সময়ে সময়ে একক আৰু অনন্য একোজন ব্যক্তিৰ অৱতৰণ হয়, তেনে বিৰল ব্যক্তিত্বৰ ভিতৰত সুধাকণ্ঠ ড॰ ভূপেন হাজৰিকাও অন্যতম। তেখেতৰ গীতৰ প্ৰতিটো শব্দই হৃদয়ত সৃষ্টি হয় অনুৰণন আৰু স্পৰ্শ কৰিব পাৰে আত্মানন্দক। তেনে গীতসমূহৰ ভিতৰত 'এইখন মানুহৰ দেশ' আৰু 'সূৰ্য উদয় লক্ষ্য আমাৰ' এই গীত দুটা অন্যতম।

প্ৰথমটো গীতত প্ৰকাশ পাইছে দেশে গণতন্ত্ৰ লাভৰ বাবে এচাম মঞ্চত মানৱতাৰ দানৱী বেশেৰে থকা মানৱী মনৰ লোকৰ বিষয়ে তথা বৰ্তমান মানুহৰ অন্তৰ সাৰশূণ্যতা প্ৰকাশ কৰা মানুহৰ বিষয়ে সুন্দৰ সারলীল ভাষাৰে প্ৰকাশ কৰিছে। সহোদৰকো নিচিনা বৰ্ণৰ ভেদ ভাঙি দেশ গঢ়িবলৈ নৱ প্ৰজন্মক আহ্বান জনাই প্ৰবল আশাবাদৰ সঞ্চাৰ কৰিছে।

দ্বিতীয় গীতত সূৰ্য উদয় যদি লক্ষ্য তেন্তে সূৰ্যাস্তৰ লৈ ধাৰমান কিয় অৰ্থাৎ দেশ গঢ়াৰ কথা নাভাৱি ধ্বংসৰ বাবে কিয় অগ্ৰসৰ? শান্তি শীতল বৃষ্টিৰ পৰিৱৰ্তে কিয় অনাবৃষ্টিৰ বাবে আগ্ৰহ মানুহৰ? সূৰ্য উদয়, শান্তি-শীতল, বৃষ্টিৰ দিশে নৱ প্ৰজন্মক আগবাঢ়ি যাবলৈ কথা-কবিতাৰ দৰে অসমীয়া-ইংৰাজী শব্দৰ সুন্দৰ আবৃত্তিৰ জড়িয়েতে সারলীল শব্দৰ যাদুৰে দেশৰ প্ৰতি, জাতিৰ প্ৰতি ভূপেন দাই গভীৰ আশা-প্ৰত্যাশা প্ৰকাশ কৰিছে।



অস্তাচলত সারতি থকা পুৱতি নিশাৰ সপোন



Dr Ajoy Kr. Das, Assistant Professor,
Department of Botany,
Arya Vidyapeeth College
(Autonomous)

(১)

হেৰা নেহাংগনা,
দেখিচানে কেতিয়াবা ডুবিব ধৰা বেলি
চাইছা জানো কেতিয়াবা সেই বেলিৰ হেঙুলীয়া!
কিহৰ মায়াত বেলি অস্ত যায় নেহাংগনা
দিনটোৰ ভাগৰত নে
উদয় হোৱাৰ আশাত?

(২)

হেৰা নেহাংগনা,
পাৰ কৰিছানে কেতিয়াবা
পানবজাৰৰ মায়ারী সন্ধিয়া,
কিতাপৰ দোকানৰ আলিবাট।
লুটিয়াই চাইছানে কেতিয়াবা
নেৰুদা অথবা লৰ্কাৰ নতুন কিতাপ।
পোহৰৰ আলিবাট।

(৩)

হেৰা নেহাংগনা,
আবেলি নদীৰ পাৰত
বহিচানে কেতিয়াবা,
এই যেন চৰি আছে
দুজনী বনৰীয়া হাঁহ,
পকা ধানৰ লক্ষ্মী গোকত
উজাই অহা এনাই চোতাল।

(৪)

হেৰা নেহাংগনা,
উৰুৱাই পাইছানে কেতিয়াবা
ফাগুন ফাগুন লগা চিলা,
ছাতি নোলোৱাকৈ
বৰষুণত তিতা,
ফৰিংফুটা জোনাক
আৰু এহেজাৰ এটা জোনাকী পৰুৱা।

(৫)

বুজিছা নেহাংগনা,
পোহৰ অহা বাটবোৰৰ জপনা
এদিন খোল খাব
সপোন ফুলবোৰ ফুলিব।



QUIZZES AND FUN FACTS





THE WILD SIDE OF PLANTS



Think plants are boring?

Just green things standing quietly in the sun?

Oh sweet summer chloroplast...

Plants are dramatic. Plants are strategic. Plants are petty. Plants are patient masterminds running a silent empire while we argue on the internet.

Welcome to the botanical multiverse.

Buckle up.



SOME FUNNY AND UNBELIEVABLE BOTANY FACTS

1. Plants can "HEAR" caterpillars chewing.

When caterpillars start munching, some plants detect the vibration and release chemical defences.

They basically hear:

"cronch-cronch"

and respond with:

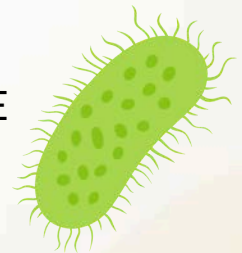
"Not today"



2. Trees Send Warning Text Messages.

Through underground fungal networks (the "WOOD WIDE WEB"), trees warn nearby trees about insect attacks.

Yes. Forest group chat is real.



3. Some Plants Count.

The Venus flytrap counts how many times an insect touches its hairs.

Less than 2 touches?

"Nope".

It literally counts before snapping shut.



4. There's a Plant That Smells Like a Dead Body



The corpse flower smells like rotting flesh to attract flies.
Romantic? No.
Effective? Absolutely.

5. Some plants Are Vampires

Dodder plants wrap around other
Plants and steal nutrients.
They do not even bother with photosynthesis.
Freeloading at a botanical level



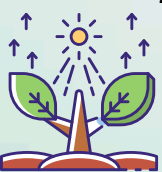
6. Plants Can Fake Being Sick

Some plants release chemicals that attract predators of insects attacking them.
Imagine getting robbed and calling a tiger instead of the police.

7. There is a Plant That Explodes its Seeds



Touch-me-not seed pods explode dramatically.
Zero warning. Maximum chaos



8. Plants Can “Sleep”

At night some plants can droop or close leaves (nyctinasty).

Even plants say:

“Okay that’s enough photosynthesis for today.”



9. Bananas Are Berries...But Strawberries Aren't

Botany said. “Let’s confuse everyone.”

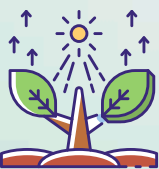
Scientifically, bananas qualify as berries.

Strawberries? Not true berries.



10. There’s a Tree Older Than the Pyramid

Some bristlecone pines are over 4,800 years old.



QUIZ TIME



SOME INTERSETING BOTANY QUIZ

1. Which is the largest flower in the world?

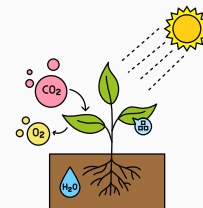


2. Which plant closes its leaves in 0.1 seconds, faster than a blink?

- a) *Drosera*
- b) *Mimosa pudica*
- c) *Dionaea muscipula*
- d) *Utricularia*



3. Which plant can live more than 5000 years?



4. Which tree can store thousands of liters of water in its trunk ?



5. Which plant can walk slowly towards sunlight over years ?



6. Which plant has the largest seed in the world?

7. Which plant produces the world's most expensive spice?



8. Which plant opens its stomata at night?



9. The world's smallest flowering plant is?



10. Which is the tallest tree species in the world?





ANSWERS



1. *Rafflesia arnoldii*



2. *Mimosa pudica*

3. *Pinus longaeva*



4. *Adansonia digitata*

5. *Socratea exorrhiza*



6. *Lodoicea maldivica*

7. *Crocus sativus*



8. *Opuntia*

9. *Wolffia globosa*



10. *Sequoia sempervire*



Rooted in knowledge, nurtured by passion, and blossoming into excellence – we are the proud Department of Botany.



THE ACHIEVERS' GALLERY, FACULTY MEMEBERS, NON-TEACHING STAFF PHOTO & DEPARTMENTAL ACTIVITIES

THE ACHIEVERS' GALLERY

2nd Semester



Omraj Dutta

- 1st in Online Essay Writing Competition on "Role of Youth in Empowering communities and Nation Building" ANNUAL COLLEGE WEEK (2026)
- 1st in One Word One Story Competition
- 1st in Magazine Cover Page Competition
- 1st in On-spot Poem Writing Competition
- 2nd in Book Review Competition



Hasrin Samim Ullah

ANNUAL COLLEGE WEEK (2026)

- 1st in Book Review Competition
- 2nd in Speech Competition
- 2nd in English Poem Recitation



Pritisha Devi

- ANNUAL COLLEGE WEEK (2026)
- 1st in Cooking Competition
 - 3rd in Magawzine Cover Page Competition



Sarad Bora

- ANNUAL COLLEGE WEEK (2026)
- Judges Special Award in Drama

THE ACHIEVERS' GALLERY

4th Semester



Drishti Priya Bharadwaz

- Jnanpith Nilamani Phukan Best Literary Award 2025
- First in Independence Day Special Essay Writing Competition on 'Operation Sindoor', 2025



Swopnil Jyoti Bhuyan

- ANNUAL COLLEGE WEEK (2026)
- 1st in Speech Competition
 - Judge's special award in One Word One Story Competition
 - 3rd in Nila Khamor Sithi



Kangkana Das

- ANNUAL COLLEGE WEEK (2026)
- 3rd in Dance Competition
 - 3rd in Book Review Competition



Nipu Mani Das

- ANNUAL COLLEGE WEEK (2026)
- 2nd in Shot put
 - 2nd in Volleyball



THE ACHIEVERS' GALLERY



Truistika Boro

ANNUAL COLLEGE WEEK (2026)

- 2nd in Zubeen Garg Geet



Raktopal Baruah

ANNUAL COLLEGE WEEK (2026)

- 1st in Instrumental Competition



Dhiraj Sarma

ANNUAL COLLEGE WEEK (2026)

- 1st in Photography Competition



THE ACHIEVERS' GALLERY

6th Semester



Ponkhi Bora

ANNUAL COLLEGE WEEK (2026)

- Best Actress 2026 1st in Solo Act



Debarshi Sarma

ANNUAL COLLEGE WEEK (2026)

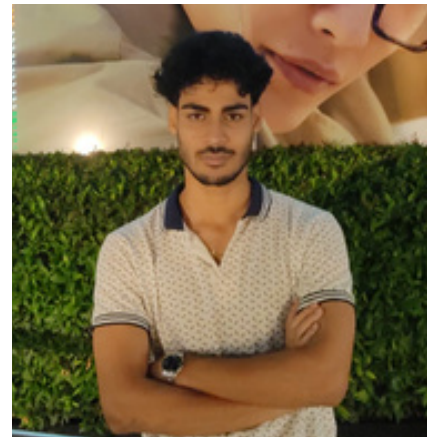
- 3rd in Wall Art Competition



Jaydeep Das

ANNUAL COLLEGE WEEK (2026)

- 1st in Volleyball
- 3rd in Wall Art Competition
- 2nd Prize in Photography Competition
- Attended ALC NER camp at Dibrugarh.
- Lead the air contingent of Cotton University in 2026 varsity week



Nilkamal Mazumdar

ANNUAL COLLEGE WEEK (2026)

- 1st Prize in Kabaddi
- 1st Prize in Football
- 1st Prize in Cricket
- 1st Prize in Kho kho
- 1st Prize in Volleyball

THE ACHIEVERS' GALLERY



Madhurjya Prasad Dutta

ANNUAL COLLEGE WEEK 2026)

- 1st Prize in Kabaddi
- 1st Prize in Kho kho



Partha Pratim Pathak

ANNUAL COLLEGE WEEK (2026)

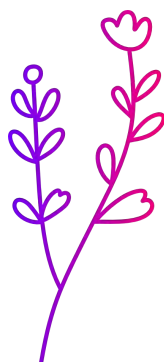
- 1st Prize in Kabaddi
- 1st Prize in Cricket



Nirmal Barman

ANNUAL COLLEGE WEEK (2026)

- 1st Prize in Kho kho
- 1st in Kabaddi
- 1st in Volleyball
- 2nd in Arm wrestling



THE ACHIEVERS' GALLERY

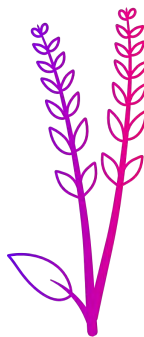
Arya Vidyapeeth College (Autonomous)
Arya Nagar, A.K. Azad Road, Guwahati-16

Congratulations
BATCH 2025

Department of Botany is proud of your achievements

 Anushka Dey M.Sc. in Botany Indique Girls' College Assam	 Apurva Bhowmik M.Sc. Botany Cotton University, Assam	 Chinmay Pratim Konwar M.Sc. Botany North Lakhimpur University Assam	 Deblina Sarma M.Sc. Botany Central University of Punjab	 Debojit Chanda M.Sc. Botany Gauhati University, Assam GUPGET Rank 8, IIT-JAM CM Green Fellow 2024	 Divritismita Sarma M.Sc. Plant Science Central University of Himachal Pradesh	 Diprajit Ghosal M. B. A. Flagship Chandigarh University Mohali, Punjab	 Jyotirmoy M.Sc. Botany B. Borooah College, Assam	 Karanjeet Deb M.Sc. Botany Visva-Bharati University Shantiniketan (Central University)
 Kasmita Manshi Das M.Sc. Botany B. Borooah College Assam	 Nazar Roy M.Sc. Botany Gauhati University, Assam CUPGET Rank 1 GUPGET Rank 3	 Pallabi Baruah B. Ed. Deomornoi B. Ed. College, Assam	 Pallabi Haloi M.Sc. Botany Guru Gashidas Vishwavidyalaya, Bilaspur (Central University)	 Rohit Choudhury M.Sc. Food Processing and Food Technology University of Lucknow Uttar Pradesh	 Santanu Boro M.Sc. Botany Mizoram University Mizoram (Central University)	 Sayasmita Dutta M.Sc. Environmental Science Gauhati University, Assam	 Shreeti Nabensa M.Sc. Botany Gauhati University, Assam	

Nirmal Barman



FACULTY MEMBERS



← From left to right:

- Dr. Nabin Saikia (Associate Professor, HOD)
- Mr. Samrat Bora (Assistant Professor)
- Dr. Ajoy Kumar Das (Assistant Professor)
- Dr. Papani Devi (Associate Professor)
- Dr. Deepika Devi (Associate Professor)
- Dr. Jahnabi Gogoi (Assistant Professor)
- Mr. Satya Nath Doley (Associate Professor)
- Mr. Dipak Bora (Assistant Professor)

OUR NON-TEACHING STAFF



← From left to right:

Mr. Montu Basfor

Mr. Biren Ch. Deka

DEPARTMENTAL ACTIVITIES



EVENT 1-

On 21st March, 2025 International Day of Forest "21st March" was celebrated .



EVENT 2-

Field Trip to Ukiam 2nd, 4th and 6th Sem on 23rd March, 2025.



EVENT 3-

On 25th March, 2025 A visit to Science Museum, Khanapara. The event was organised by Aaranyak



EVENT 4-

On 19th March, 2025, felicitation of Mr. Debojit Chanda along with his father, for clearing IIT JAM exam and also for his excellency by securing CM Green Fellowship Award



EVENT 5-

On 6th May, 2026, a field trip A visit to Herbarium and Botanical Garden, Gauhati University" by 4th Semester students.



EVENT 6-

On 8 August, 2025 Jigsaw Activity on various mechanisms of evolution, with 8 expert groups.

DEPARTMENTAL ACTIVITIES



EVENT 7-

On 9th June, 2025; our students have successfully completed their summer internship at AGT, Bioscience Institute, Amingaon



EVENT 8-

On 11th June, 2025; our students have successfully completed their summer internship at Bharaliporiya Kanyaka Bahumukhi Pam, Jamugurihaat



EVENT 9-

On 30th June, 2025; our students have successfully completed their summer internship at Daffodil Group of Institutions, Khetri



EVENT 10-

On 22nd August, 2025, participated in the EDUNE CONCLAVE, 2025 at the Royal Global University, Guwahati



EVENT 11-

On 25th August 2025, Trinamoni and Breavy Representing AVC in Inter College Volleyball Competition 2025, conducted by Gauhati University.



EVENT 12-

On 3th September, 2025, A talk on Microbial Diversity: Concept & Applications with Resource Person : Dr. Kumananda Tayung, Head, Department of Botany, Dean, Faculty of Science, Gauhati University

DEPARTMENTAL ACTIVITIES



EVENT 13-

On 5th September, 2025
Teacher's Day Celebration



EVENT 14-

On 6th September, 2025
Freshmen Meet for the batch of
2025



EVENT 15-

On 16th October 2025. Field Study on
Mushroom Value Addition and Food
Processing- Chandrapur Bank Tiniali,
Chandrapur, Guwahati



EVENT 16-

From 6th to 8th November, 2025, an
excursion trip of FYUGP 5th Semester
students to Byrnihat and some parts
of Meghalaya state.



EVENT 17-

On 1st February, 2026, Science
exhibition in Srimanta Sankardeva
Kalakshetra.

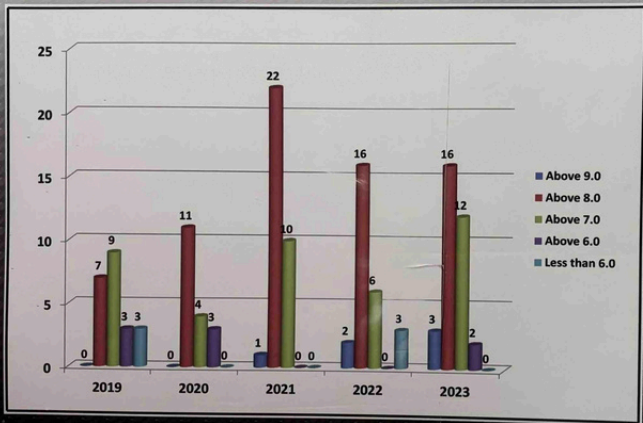


EVENT 18-

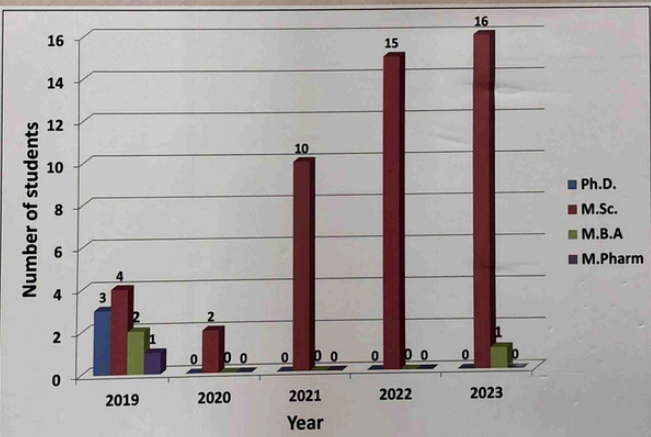
On 3rd February, 2026, the
departmental cultural rally on the
topic "Assamese Muga Culture" of
Annual sports week.

DEPARTMENTAL PROGRESS

Graphical Representation of B.Sc. Results of Botany Department for the last five years



Graphical Representation of Student Progression (Pursuing Higher Studies) for the last five years



Department of Botany, Arya Vidyapeeth College Autonomous

List of Student Placement (From the Year 2015-2023)

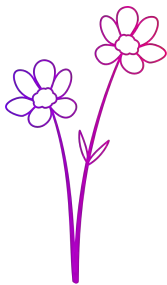
Year	Name of the Students	Position	Year	Name of the Students	Position
2015-16	1. Parbh Kashyap Sarma	Junior Scientific Officer in Assam Science Technology and Environment Council	2018-19	1. Sibani Bhowal	National Health Mission(NHM), District Microbiologist in Dima Hasao, Assam.
	2. Debopratim Baruah	Journalist, Work at Prastidin Time		2. Rituraj Das	Field Assistant, Department of Veterinary Science, Assam.
	3. Preety Priyanka Bora	School Teacher at Nobodysa Vidyalay, Rangpara College, Sonitpur		3. Lipika Bhattacharyya	Senior Sales Manager, Rajaji Allianz Life, Assam.
	4. Hangma Boro	Assistant Professor, Deptt. of Botany, Rangpara College, Sonitpur		4. Goriyaon	Joined in Indian Army.
2016-17	1. Diptakantha Chamuah	Block Development Officer(BDO), Boko, Kamrup.	5. Gidlyon Hallongbar	Joined in Central Reserve Police Force (CRPF).	
	2. Manabjyoti Baruah	Photographer and Film Maker (Documentary)	6. Nafidil Islam	School Teacher (Private)	
	3. Naresh Kumar Mahato	Motivational Speaker	7. Dipankar Sarkar	Entrepreneur (Pharmaceutical business)	
2017-18	1. Samir Warisa	Assistant Professor, Deptt. of Botany, S.B.Dorani College, Goalpara.	2019-20	1. Mrinmusa Das	Govt School Teacher
	2. Barsha Saikia	Assam Civil Service, Secured 15th Position in CCE 2022	2. Jini Das	Govt School Teacher	
	3. Manalisha Karki	Executive Assistant to Director B.Barooah Cancer Institute, Goalpara.	2020-21	1. Dikshita Bhattacharyya	Head Cashier, Assam Gramin Vikas Bank, Rahe Branch, Nagan.
2021-22	4. Kuthar Tripura	Govt School Teacher at Tipura.	2. Jimishree Patowary	TGT, Modern Senior Secondary School, Goalpara.	
	5. Jenilason Marak	Radiator operator at Boarder Security Force (BSF).	2022-23	1. Rangaili Dikusa	Joined Assam Rites School, Diphu.
	6. Nilanjana Talukdar.	Assistant Professor, Narsing Anshalka College.		1. Upasana Berman	Life Style and Food Blogger
	7. Runu Boro	Govt School Teacher, Bhangapan, Uteiguri District.		2. Monish Roy	Entrepreneur.
		3. Arbaz Khan		Entrepreneur.	

OUR PRIDE.....

Sl. No.	Name of the Alumni	Status
1.	M. Kharganwar Kalita	I.A.S. (Lower Assam Commission)
2.	Dr. Rajen Chatterbarry	Deputy Director, Central Silk Board, Govt of India.
3.	Mr. Atul Dutta Bhuyan	A.C.S.
4.	Dr. Padum Anand	Professor, IASST, Borajong
5.	Dr. Anam K. Harnigam	Professor, Dept. of Biotechnology, G.U.
6.	Dr. Mahan Ch. Kalita	Professor, Dept. of Biotechnology, G.U.
7.	Dr. Nabin Bordoloi	Director, Adult Education, Govt. of Assam
8.	Dr. Siba Choudhury	Senior Scientist, Forest Deptt., Govt. of Assam
9.	Dr. Anuj Baruah	C.E.O & M.D., Patika Herbs and Spices
10.	Dr. Santanu Phukan	Senior Scientist, Jalditai Biopark
11.	Dr. Anupa Das	Scientist D, ICAAR, Borajong, Bongaigaon
12.	Deben Bora	Head, Botany Department, Pamba College
13.	Dr. Rajen Chatterbarry	Central Silk Board Govt of India.
14.	Kharganwar Kalita	A.D.C., Kamrup
15.	Mingam Dya	Principal, Bihora Science College, Bongaigaon
16.	Dr. B.K. Bhattacharyya	Lecturer, Botany Department, Arya Vidyapeeth College
17.	Mumal Sarma	Head, Botany Department, D.K. Mirza College
18.	Anil Talukdar	Head, Botany Department, D.K. Mirza College
19.	Dr. Nalin Barua	Head, Botany Department, North Gowalhati College
20.	Purnananda Bhowal	IFS, DFO, Silchar.
21.	Mukul Debnath	Deputy Director, Deptt. of Sericulture, Govt of Assam
22.	Pradip Hazarika	Conservator of Forest, Mirzapur
23.	Deben Bhattacharyya	Lecturer, Botany Department, Goalpara College
24.	Isaien Das	Associate Professor, Botany Department, D.K. Mirza College
25.	Ananyajyoti Barthakur	Associate Professor, Bivapanthi Central College
26.	Migendira Nathi deka	Associate Professor, Botany Department, North Gowalhati College
27.	Deep Sarma	Associate Professor, Botany Department, Arya Vidyapeeth College
28.	Hrishona Kanta Medhi	Associate Professor, Botany Department, Nagan College
29.	Iwar Ch. Baruah	Assistant Professor, Assam Agriculture University
30.	Mr. Farid Islam	IFS, DFO, Dibrugarh
31.	Amanandya Sarma	Associate Professor, Botany Department North Gowalhati College
32.	Dr. Sachindra Sahaikia	Associate Professor, Botany Department, Mongaldai College
33.	Mahajyoti Dutta	Associate Professor, Botany Department, Nalbari College
34.	Mahajyoti Dutta	Associate Professor, Botany Department, Tiba College
35.	Dhananda Deka	Associate Professor, Botany Department, Nalbari College
36.	Sushilbar Kalita	Scientist, CAR, Borajong, Bongaigaon
37.	Mr. Abdul Khaliq	Lecturer, Botany Department, Kachchikha College
38.	Pratapendra Kr. Sarma	Lecturer, Botany Department, Puk Kameng College
39.	Milaha Hussain	Assistant Librarian, Central Library, Goalpara
40.	Dr. Manish Roy	Associate Professor, Botany Department, Handique College
41.	Dr. Sengita Phukan	Associate Professor, Botany Department, Sibasagar College
42.	Chandini Dey	Proprietor, Sina Library Publisher
43.	Manisha Das	ACS, Govt. of Assam

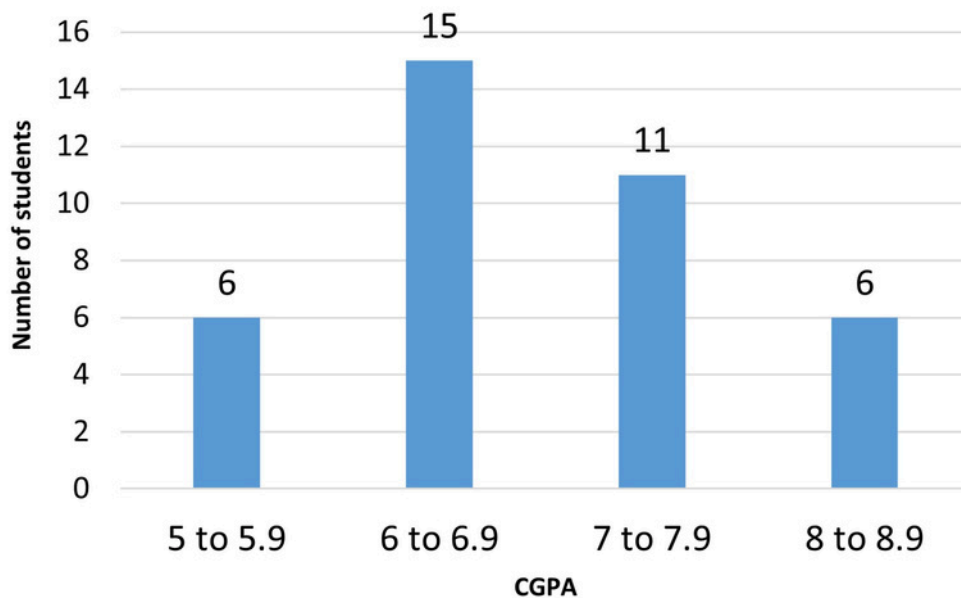
OUR PRIDE

Sl. No.	Name of the Alumni	Status
44.	Dr. S.A.I. Choudhury	Associate Professor, Ginnora College
45.	Anuj Baruah	Assistant Professor, ASST
46.	Chaitan Kr. Harnigam	Associate Professor, Nalbari College
47.	Dr. Ranjan Kr Bora	Associate Professor, Prangajyoti College
48.	Debn Bora	Associate Professor, Arya Vidyapeeth College
49.	Udit Pathak	Assistant Professor, USTB
50.	Santana Kalita	Scientist, Bioinformatics, IIT, Bongaigaon
51.	Randhira Kalita	Associate Professor, Nalbari College
52.	Shubho Datta	Area Manager, Citra India
53.	Pranab Kumar Bhattacharyya	Regional Manager, Citra Life Sciences
54.	Dr. Prayon Medhi	Assistant Professor, Pamba College
55.	Ms. Guraj Saha	Technical Manager of IIS Group
56.	Ms. S. M. Yashini	Project Manager at Bionix Brothers Ltd.
57.	Indrajyoti Goswami	Sales Manager, Gaint Pharmaceuticals
58.	Dibbaran Baruah	Associate, Neo Delhi
59.	Rimol Prasad	Associate Area Chem.
60.	Aratik Thawai	PhD Doctoral Fellow, Center for Genomic Regulation, Barcelona, Spain
61.	Diganta Das	Journalist, Assam Tribune Group
62.	Manoj Das	Professor Ph. D. in Tezpur University
63.	Hemchandra Deka	Research Scholar, IIT Guwahati
64.	Dr. Sarbanjan Talukdar	IFS, Shillong
65.	Bhakti Singh	IB, Mumbai
66.	Khanitay Moon Hazarika	Ph. D from Glasgow University
67.	Sangeeta Dhar	Assistant Professor, Naman University
68.	Dr. Siba Prasad Konwar Chetia	Assistant Professor, Romita College
69.	Sanghi Baruah	State Bank of India
70.	Mr. Subho Dutta	State Bank of India
71.	Koushik Choudhury	KICI Bank
72.	Anna Ray	State Bank of India
73.	Pranab Datta	Work in Registry of Gauhati High Court
74.	Kaushikya Rajam	TET Teacher in Assam West WB
75.	Narayan Ahmed	Asst Professor, Biology, SK Hazarika College
76.	Dr. Binay Singh	Assistant Professor of Microbiology in Royal College, Assam
77.	Dr. Soha Hossain	Assistant Professor of Botany, MC College, Barpeta
78.	Dasogjyoti Leikia	Assistant Professor of Botany, MC College, Barpeta
79.	Mr. Arun Inque	Executive in Orange Matrix
80.	Manoj Das	PhD Scholar in IIT, Jh University
81.	Priyem Karmajyoti	Executive in Axis Bank
82.	Manishanku Chutia	Executive in Axis Bank
83.	Sudam Wary	Assistant Professor, Handique Girls College
84.	Jyoti Narmaya Kalita	Area Manager, Light Limited
85.	Rangana Boro	Area Manager, Light Limited
86.	Parthiv Kashyap Sarma	Assistant Professor of Botany, Rangpara College
87.	Dr. Binay Singh	Project Botanist, Assam Science Technology & Environment Council (ASTEC)
88.	Dhritaj Das	Research Scholar of Microbiology, Assam Agricultural University, Khanapara
89.	Soumi Wanta	Assistant Professor, Botany & B. Deshpande College
90.	Lokapriya Dutta	Research Scholar, Department of MBS, WIPR University

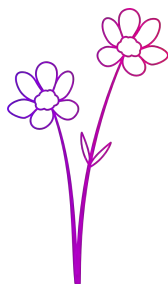
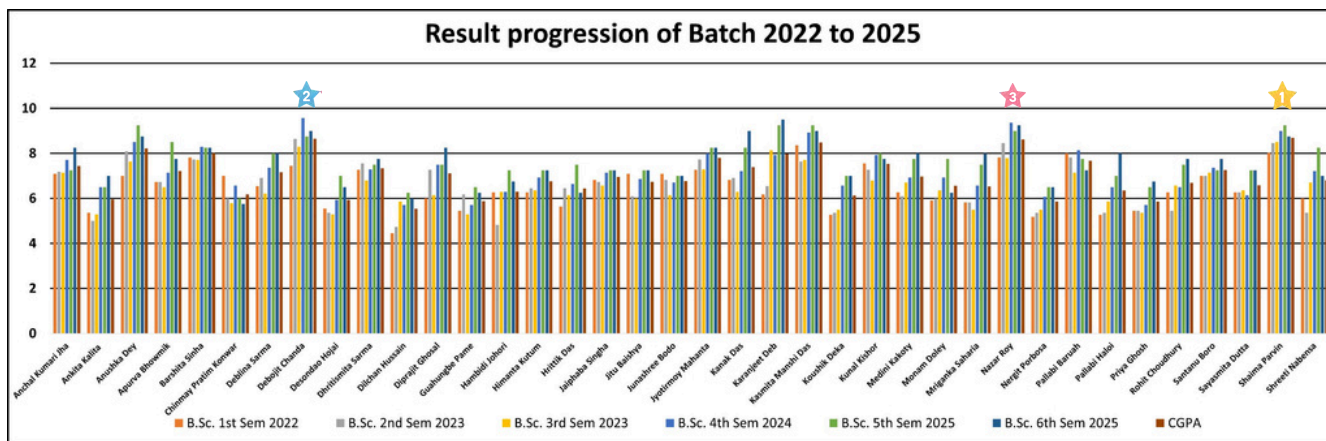


DEPARTMENTAL PROGRESS

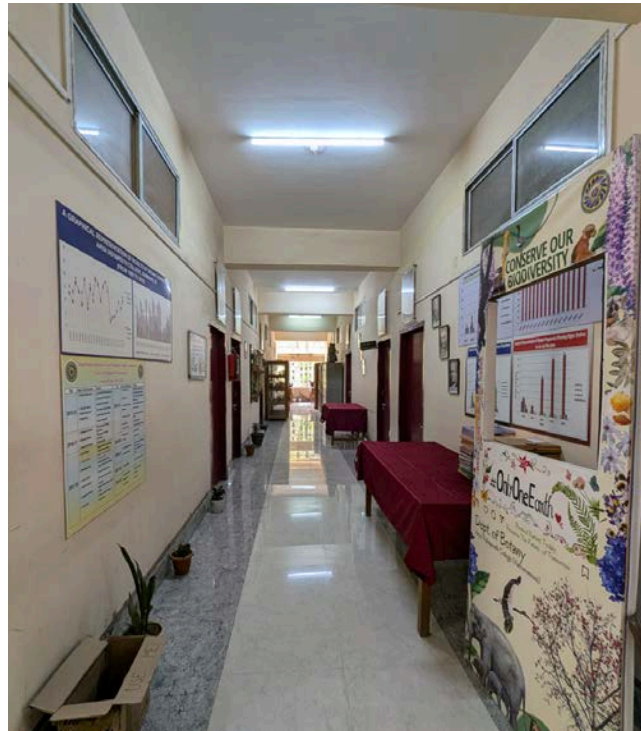
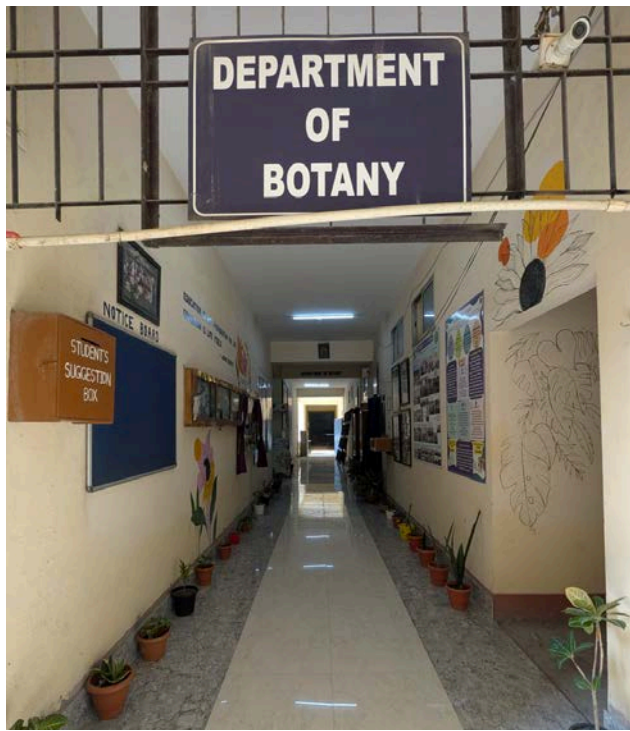
Result of B.Sc. Botany Honours, 2022-2025



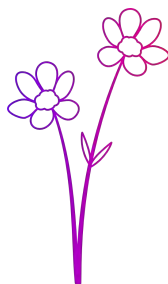
Result progression of Batch 2022 to 2025

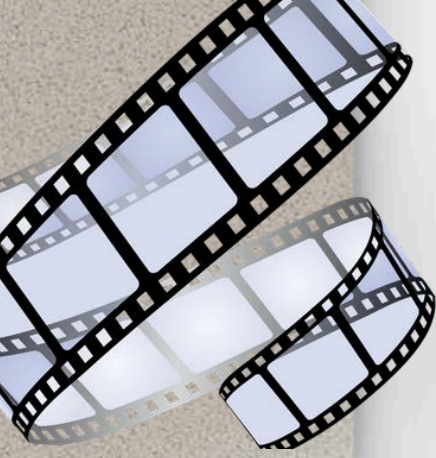


DEPARTMENTAL PROGRESS

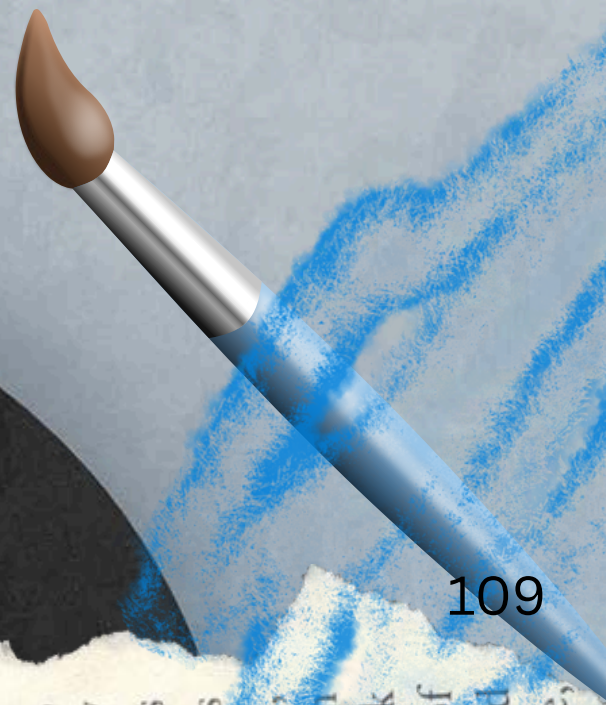


Our Department of Botany got the “Best Cleanliness Award” for two consecutive years 2025 and 2026



A central film strip frame containing a blue watercolor splash with gold glitter. The text "CLICKS & PALETTES" is overlaid on this frame.

CLICKS & PALETTES





“A specimen of grace: The Monarch and the Bloom”

By Debarshi Sarma
6th Semester

“An Artwork representing Biology indicating Flora”

By Bhaswati Ray
2nd Semester



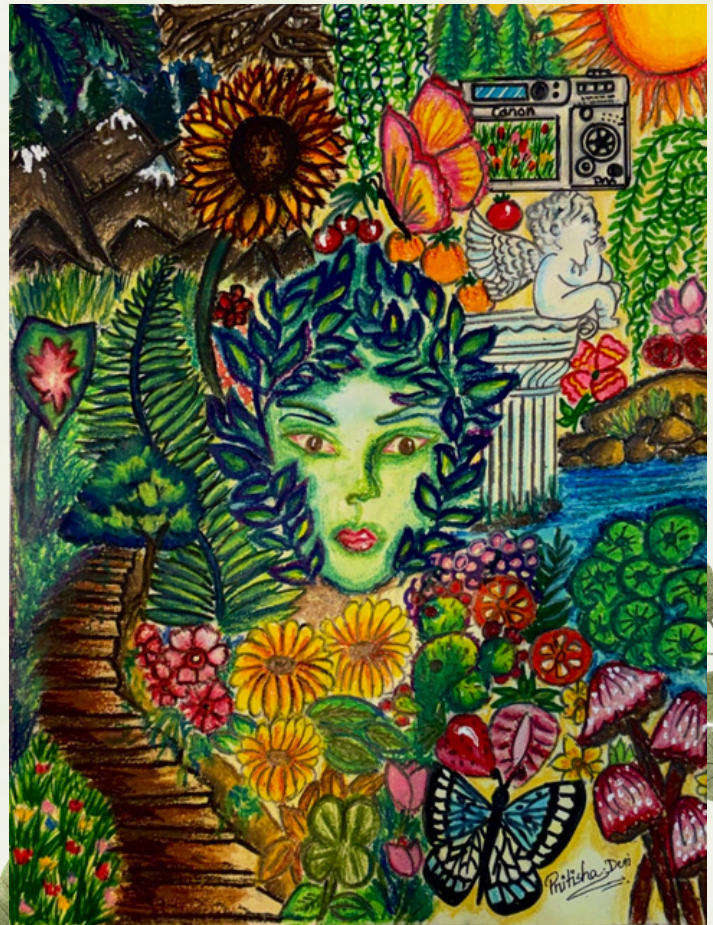


“World's largest flower- *Rafflesia arnoldii*”

By Omraj Dutta
2nd Semester

**“Where nature finds a face ,
every leaf tells a story”**

By Pritisha Devi
2nd Semester





**“Flourishing life beneath
the
watchful mountains- a
celebration
of nature's harmony”**

**By Namrata Bhardwaj
2nd Semester**

**“Nature's Canvas- The golden hour
mirrored through still waters
and silent trees”**

**By Namrata Bhardwaj
2nd Semester**





WHY I CHOSE BOTANY

From a young age, I have always been captivated by the wonders of nature. The intricate details of flowers, the shades of green in leaves and the graceful way plants grow have fascinated me endlessly. This love for the natural world led me to choose botany as my field of study, and it has proven to be the best decision I have ever made.

A DEEP LOVE FOR NATURE

Choosing botany was a natural decision for me because of my deep love for nature and plants. I am constantly amazed by the diversity of plant life, from tiny mosses to towering trees. Studying botany allows me to learn about how plants function, grow and interact with their environment. It's like uncovering the secrets of life through the lens of greenery.

ENVIRONMENTAL IMPACT

Botany plays a crucial role in understanding and protecting our environment. Research in plant science is key to addressing issues like climate change, deforestation and conservation of endangered species. By studying botany, I feel empowered to contribute to these efforts. Learning about plants has given me a deeper understanding of how life on Earth is interconnected and how we must protect our planet for future generations.

Reason for Learning

- Always excited to explore and discover new things.
- Arya Vidyapeeth College, with its academic excellence and supportive learning environment has further strengthened my interest in botany.
- The department encourages curiosity and critical thinking, helping students connect theoretical knowledge with real world applications.

Research and Science

- Scope for scientific research and discovery. Botany offers vast research opportunities in plant breeding, biotechnology, tissue culture and molecular biology.
- Environmental conservation and ecology. Botany helps us understand ecosystem, conserving endangered species and restoring natural habitats.

Personal Career

- Offers fulfilling and exciting opportunities in research, conservation and education.
- Personal satisfaction and growth. Working with plants gives mental peace, creativity and a strong sense of purpose.
- Contribution to society. A career in botany helps improve food security, protection and health.

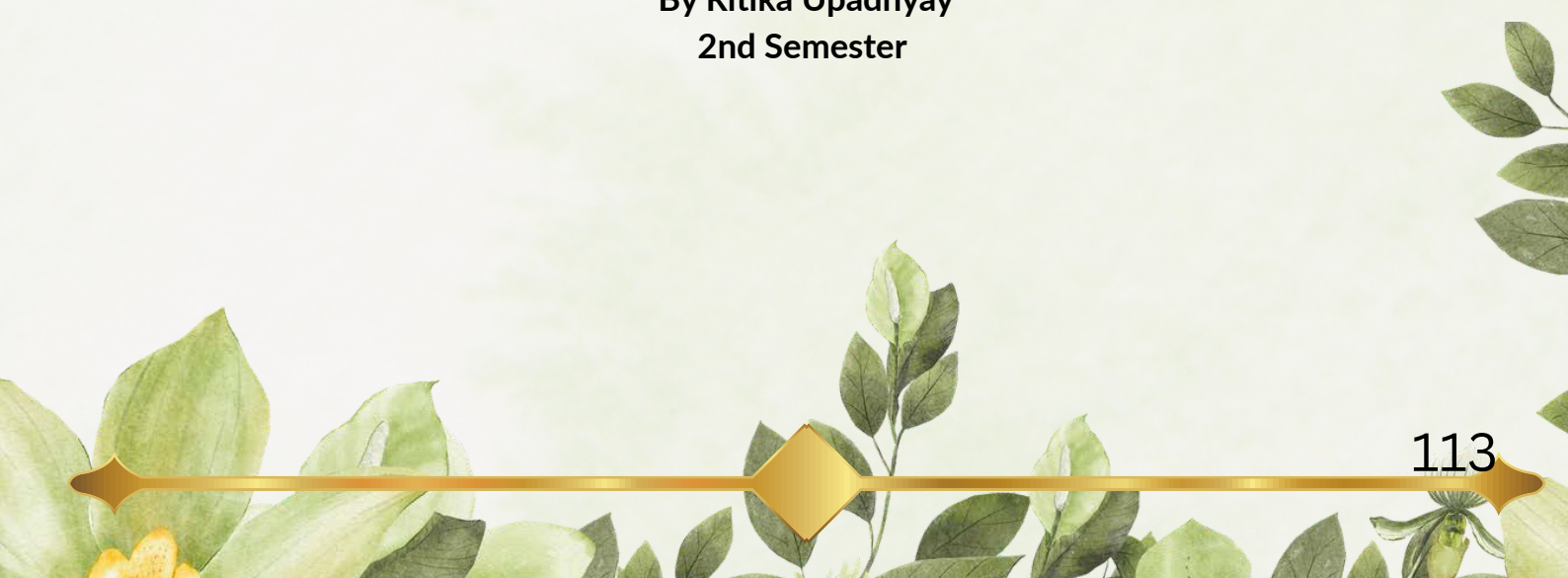
Curiosity and Discovery

- Thrilled by the chance to find new plants and learn about their adaptations.
- Discovery through fieldwork and experiments.
- Personal joy of discovery. Each observation in botany brings curiosity, excitement and the joy of learning something new.

- By Ritika Upadhyay
Class : FVUCP 2nd Sem
Rollno - 2532001508

"Ink and Thoughts"

By Ritika Upadhyay
2nd Semester



PHOTOGRAPHY



**“Tiny mushrooms standing
together growing quietly in
the soil”**

Photography By :- Beauty Talukdar
6th Semester

**“Between the sea and the shore,
life moves on”**

Photography by :- Pritisha Devi
2nd Semester





scientific name - morifolium
common name - florist's Daisy

Scientific Name : *Morifolium sp.*

Common Name : Florist Daisy

**Photography by :- Arijit Kalita
2nd Semester**



Scientific Name : *Lagerstroemia speciosa L.*

Common Name : Ajar

**Photography by :- Arijit Kalita
2nd Semester**



scientific name - lagerstroemia speciosa (L.)
pers
common name - banala

CONCLUSION

As we arrive at the last few pages of VERDANT, we can only hope that this e-magazine has achieved its objective of helping our readers feel more connected to nature and develop a deeper love for the botanical world. We believe this edition has inspired creativity, encouraged fresh and innovative ideas among young minds, and helped everyone see how important plants are in building a sustainable future. As science keeps growing and changing, our understanding of the power and potential of plant life also continues to expand. This edition of Verdant made us aware of the contribution of botany in transforming our living world. We conclude with the hope of many more such successful editions of Verdant in the future.

The entire Editorial Board feels proud to present the second edition of VERDANT. We are hopeful that it has created a strong foundation for the future and will play a meaningful role in shaping a greener, wiser, and more balanced world.

Thank you for being an important part of this journey. Let us continue to learn, grow, and stay forever verdant!

WALL MAGAZINE





VERDANT

(adj.) | ver·dant

"Brimming with youthful vitality, like tender green shoots whispering of a flourishing tomorrow."