Glimpses of Flora and fauna of Atmiya Campus

EXPERT

DR. RINA P. DAVE

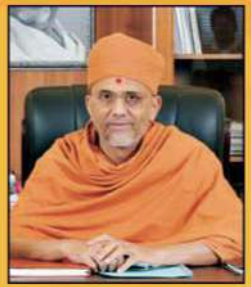
Head,
Associate Professor
Department of Biology
Shri M. & N. Virani Science College (Autonomous)
Rajkot

CO-ORDINATOR

DR. NEHA T. PATEL

Associate Professor
Department of Biotechnology
Faculty of Science
Atmiya University, Rajkot

0 Lord!
Whether anyone else becomes 'ATMIYA' or not,
Please make me' ATMIYA'



FOUNDER PRESIDENT - MESSAGE:

Our 'Sanskruti • is known for its traditional wisdom and respect for nature in its various forms. We have been practicing ' Kan Kan me Bhagvan..' and nature, including plants has been worshiped by Our culture since ages... ' Tulsi ', the holy basil plants. is worshiped in practically every house.This unparalleled respect and compassion for nature stem from the deep understanding of the life giving and life saying forces in nature..

The knowledge of plants Botanicals, Herbal cure of various disease, medicinal & Economic values of plants is also as old as our sanskruti and has been reflected even In the most sacred and ancient scriptures including Vedas.

Gujarat is known for its rich floral diversity which includes remarkable medicinal Aora medicinal plants has affained a commanding role in health system all over the world.

Education is strength of Botanical gardens that allows them to communicate the importance of conseNing plants, Communicate how this may be achived

I compliment head of the biology Department all commendable work

I also congratulate the author for such a praiseworthv work, I bellve and blessed it will go a long way in conseNing the Ethenic knowledge and precious medicinal plants.

SADHU TYAG VALLABH DAS
Secretary
Sarvodaya Kelavani Samaj
Rajkot

Pro-Chancellor - Message

Icongratulate coordinator & Editor- Dr. Rina P. Dave, HoD Department of Biology Shri M. & N.Virani Science college (Autonomous) Rajkol & Dr. Neha T. Patel Faculty of Science, Almiya University on their remarkable achievement. Glimpses of Flora and Fauna of Almiya Campus is a labor of love that showcases stunning ecosystem on campus. Campus flora and fauna play a crucial role in creating a sustainable and vibrant learning environment. Their importance extends beyond aesthetics, encompassing ecological, educational, and psychological benefits. By prioritizing the conservation and enhancement of campus flora and fauna, institutions can promote a holistic environment conducive lo learning, research, and personal growth.

This work beautifully captures the biodiversity and ecological treasures of the Almiya campus, serving as a testament lo the harmony between nature and academia. In today's era of pressing environmental concerns, such efforts are invaluable in fostering awareness about sustainable practices and the need lo preserve our natural heritage.

Their dedication in documenting and celebrating the richness of the environment inspires us all lo embrace ecological stewardship and build a greener, more sustainable future.
Wishing continued success in endeavours lo promote environmental education and conservation.

Iam sure that pioneering work will be very useful lo various sections of the society including the local communities its also useful UG & PG Students for research studies.

Warm regards ,

Dr. Sheela Ramachandra

Pro-Chancellor, Almiya University

Registrar - Message

I am delighted lo know that the book entitled "Glimpses of Flora and Fauna of ATMIYA CAMPUS" is being Prepared by Dr. Reena P. Dave Head, Associate professor Department of Biology Shri M.& N. Virani Science college Autonomous, Rajkol and Dr. N. T. Patel Faculty of Science, Almiya University.

We all know that human well-being critically depends on ecosystem services provided by biodiversity. Its loss and continuous degradation throughout the planet present one of the major environment challenges lo human survival and prosperity in the 21st century.

Il is incumbent on us all lo do everything in our power lo protect our valuable biodiversity for the benefit of future generations. Increasing awareness and understanding on biodiversity and its sustainable use is a first step in this process.

I am confident that this book-Written with biological terminology and non-technical language-prepared by the Department of Biology Shri M.& N. Virani Science College Autonomous, Rajkol will help in educating people and disseminating knowledge and information on the importance of biodiversity-both globally and al Almiya campus. Conserving biodiversity is not just about protecting species but ensuring the sustainable provision of ecosystem services critical for human survival.

Congratulations on the publication of Almiya Campus Biodiversity: "Glimpses of Flora and Fauna of ATMIYA CAMPUS". Your Dedication of authors lo showcasing the natural beauty and biodiversity of the Almiya campus is truly inspiring. This work not only highlights the intricate flora and fauna of the region but also raises awareness about the importance of preserving our natural heritage. The passion for nature shines through each page, offering readers an enlightening experience. Wishing a great success with this remarkable book, and looking forward lo seeing ii inspire many others.

Dr. D. D. Vyas

Registrar, Atmiya University

Principal - Message :

Heartly Congratulations lo Dr. Reena P. Dave and team on the publication of" Glimpsis Of Flora And Fauna Of Almiya Campus". Your passion for environmental conservation shines through in book of" Glimpsis Of Flora And Fauna Of Almiya Campus". This book is a testament lo your commitment lo fostering a sustainable future.

Plants are the primary source of food and energy on earth. Along with other creatures, they have nurtured the humanity in many ways. It is very well-know that the plants have always been a source of medicines as well. Our ancestors had a deep understanding of plant based medicines. It is necessary that effective steps are taken lo document, preserve and further develop the traditional knowledge about medicinal plants. Moreover, any conservation programme would depend on the understanding and knowledge abou the medicinal plant. In view of the great treasure of floral diversity which we have, ii is necessary that we broaden our appreciation and understanding of the real medicinal value of various plants.

It is hearting lo note that the mankind has entered the 21st century with a better appreciation of the great medicinal potential which the plants possess. The growing popularity of herbal medicines and other herbal products goes a long way lo show that even the modern science is coming closer lo the traditional understanding about plant based there- pies. In the wake of the new phenomenon, a variety of interests have developed in herbal medicines al the global level. We need lo act fast so that our great heritage of medicinal plant and traditional knowledge about them is pre- served and properly valued. Apart from having a great conservation value, such efforts would also have a remarkable socio-economic impact particularly on the local communities.

The Book Flora and fauna of Almiya Campus. Prepared by Department of Biology is a commendable work as ii gives a systematic accounts of Various Aspects of plants in medicinal Garden.

Dr. K. D. Ladva
Principal
Shri M.& N. Virani Science college
(Autonomous) Rajkol

PREFACE

It gives me a great pleasure to present the book "Glimpses of Flora and Fauna" of Atmiya Campus which contains a short account of the medicinal plants with medicinal value and fauna campus diversity.

We are fortunate to have a rich heritage of traditional knowledge regarding the healing properties of herbs. With the rise of the modern medicine system, this traditional method of treatment had somewhat started slipping in to oblivion during the last centuries. However, due to the recent surge in the people's interest and awareness about the medicinal plants and herbal treatments. The plant-based medicines are back in demand. Man has entered the new century with a rejuvenated faith in the traditional wisdom and healing properties of plants. The present book has been structure in two distinct part, part-I flora & part-II fauna. In this book we have mention list of plants with Botanical name, local name, photography, herbarium and medicinal importance. List of plants, with Botanical name List Photograph and Medicinal Importance

And also list of fauna which are present in campus - as above mentional we tray to make ornamental and will plants in our systematic flora's list we are making each plant to tag with their Botanical name and local name of Plants. This is also covers the major flora and fauna's list of Atmiya campus. Which provides major survey of Biodiversity in Atmiya campus. I hope that "Glimpses of Flora and Fauna" of Atmiya Campus would be found useful to local people, scientist, researchers, traditional and medicinal partitioners and UG,PG students of universities.

Dr. Reena P. Dave
Head, Department of Biology
Shri M& N Virani Science college (Autonomous), Rajkot

Message

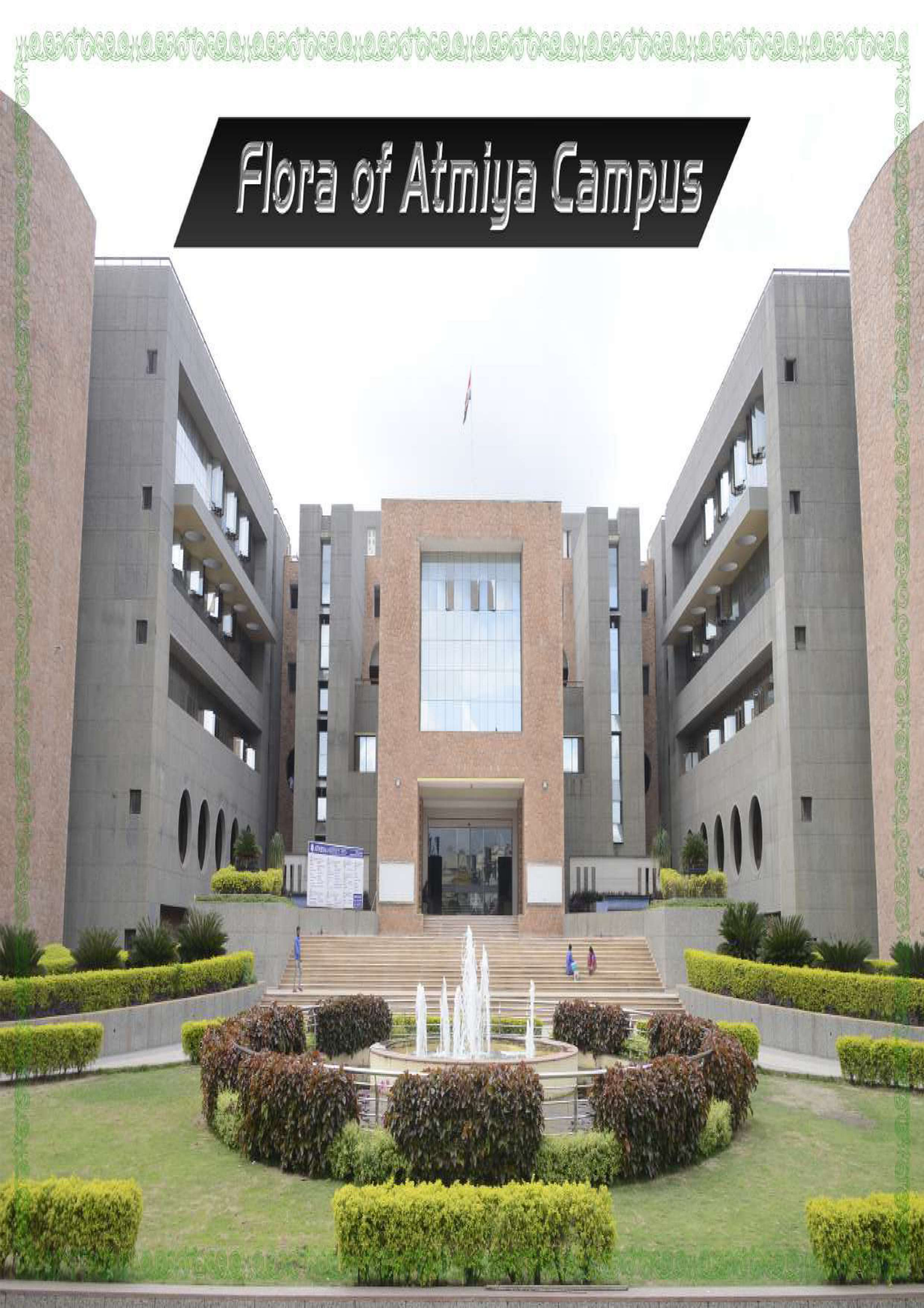
I am proud lo present campus biodiversity as the coordinator of this book.

Introduction: Biodiversity refers lo all forms of living organisms. Il includes plants, animals and microorganism from terrestrial, aquatic and marine ecosystem. Biodiversity is most commonly equaled in terms of biological species. Therefore, species is the currency for measuring biological diversity. They are ubiquitous and are found in all forms of landscape. The forest ecosystems have greater number of species than farmland, or semi-urban and urban landscapes. Occurrence of species also varies in different ecosystem and ecological zones. They form mosaic in a landscape either as domesticated crop plant or farm animal or wild forms. Biological organisms are natural resources for present and future they may be directly utilized as food, medicine, sheller or for recreational or aesthetic purpose. Much of the rural people rely on these biological resources for their livelihood. The cultural, aesthetic and recreational value of biodiversity is enormous which cannot be equaled in terms of monetary terms. Therefore, knowledge of biodiversity plays important role for the survival of future. There are many plants and animals present in and around us which are playing vital role in maintaining nutrient and hydrological cycle, or providing various ecosystem services for maintaining food chain. We are not aware of ii or ignorant about their role in sustaining the ecosystem. Il becomes important lo see all the biological species as equals. More importantly, lo know the biological resources around us in view of increasing number of bio piracy happening around the globe. As par! of the environmental science curriculum and conservation of Earth -Topography, beautiful topography is the result of the interaction between various phenomena, such as climate, vegetation, animals and the surrounding ecosystem. These phenomena have a strong influence on campus biodiversity .

Dr. Neha T. Patel
Department of Biotechnology
Atmiya University, Rajkot

Contant :

Flora of Atmiya Campus



Oedogonium

BOTANICAL NAME : *Oedogonium* sp.

FAMILY : Chlorophyceae

HABITAT : Green Algae

DISCRIPTION : filamentous green algae, with unbranched filaments that are one cell thick. Oedogonium can be free-floating, though it is usually attached to aquatic plants by a holdfast. It appears greenish and inhabits calm, fresh waterchloroplasts reticulated with many pyrenoids; asexual reproduction by zoospore; sexual reproduction by fertilization by egg and sperm; monoecious or dioecious. linear filament without branching

Chara

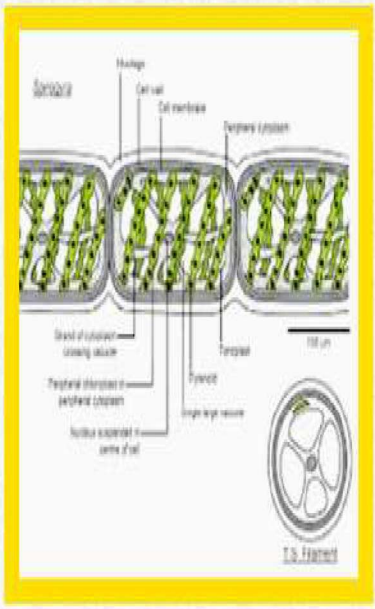
BOTANICAL NAME : *Chara* sp.

FAMILY : Characeae

HABITAT : Green Algae

DISCRIPTION : multicellular and superficially resemble land plants because of stem-like and leaf-like structures, found in fresh water, consists of a main axis (differentiated into nodes and internodes), dimorphic branches (long branch of unlimited growth and short branches of limited growth), rhizoids (multicellular with oblique septa) and stipulodes (needle shaped structures at the base of secondary laterals)

Spirogyra



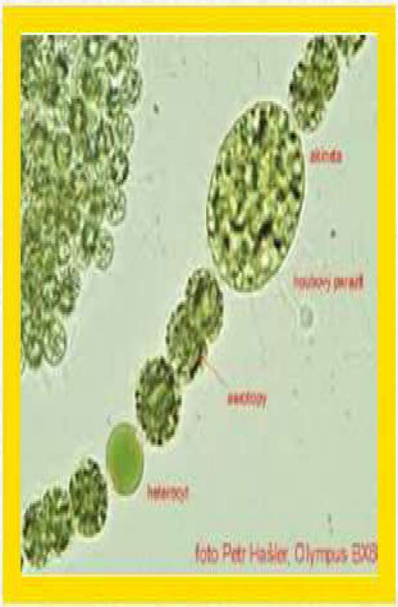
BOTANICAL NAME : *Spirogyra* sp.

FAMILY : Zygnemataceae

HABITAT : Green Algae

DISCRIPTION : an unbranched filamentous thallus, measuring about 1 mt. in length, very slimy due to the presence of mucilage sheath that lines the whole filament, the mucilage often holds the filaments together in a matted blanket

Nostoc



BOTANICAL NAME : *Nostoc* sp.

FAMILY : Nostocaceae

HABITAT : Blue green Algae

DISCRIPTION : found in soil, on moist rocks, at the bottom of lakes and springs (both fresh- and saltwater), and rarely in marine habitats, grow symbiotically within the tissues of plants and the hornworts, providing nitrogen to its host through the action of terminally differentiated cells known as heterocysts. These bacteria contain photosynthetic pigments in their cytoplasm to perform photosynthesis

Oscillatoria

BOTANICAL NAME : *Oscillatoria* sp.

FAMILY : Oscillatoriaceae

HABITAT : Blue green Algae

DISCRIPTION : Composed of single row of cells, form trichomes, unbranched filaments, covered by very thin mucilaginous sheath; the apical cells are convex at the tip, cells - broader and cylindrical, cylidrical cells with their length equal or greater than the breath

Cirnum asiaticum

BOTANICAL NAME : *Cirnum asiaticum* L.

LOCAL NAME : Crinum-Lily

FAMILY : Amaryllidaceae

HABITAT : Herb

MEDICINAL USES : Inflamed joints, Sprains, Earache, Rubefacient

Sapindus tirfoliatus

BOTANICAL NAME : *Sapindus tirfoliatus* L.

LOCAL NAME : Aritha

FAMILY : Sapindaceae

HABITAT : Tree

MEDICINAL USES : Antibacterial, Antifungal, Hemicrania

Bauhinia variegate

BOTANICAL NAME : *Bauhinia variegate* L.

LOCAL NAME : Kanachor

FAMILY : Fabaceae

HABITAT : Tree

MEDICINAL USES : Diarrhoea, Bad breadth, Tumours, Jaundice

Pongamia pinnata

BOTANICAL NAME : *Pongamia pinnata* L.

LOCAL NAME : Karanj

FAMILY : Fabaceae

HABITAT : Tree

MEDICINAL USES : Piles, Leprosy, Cough and cold, Liver pain

Manikara hexandra

BOTANICAL NAME : *Manikara hexandra* (Roxb.)

LOCAL NAME : Rayan

FAMILY : Sapotaceae

HABITAT : Tree

MEDICINAL USES : Anticancer, Demulcent

Putranjiva roxburghii

BOTANICAL NAME : *Putranjiva roxburghii (Roxb)*

LOCAL NAME : Putranjiva

FAMILY : Euphorbiaceae

HABITAT : Tree

MEDICINAL USES : Anticancer, Vitality

Citrus limon

BOTANICAL NAME : *Citrus limon* L.

LOCAL NAME : Limbudi

FAMILY : Rutaceae

HABITAT : Tree

MEDICINAL USES : Seasickness, Dysentery, Headaches, Vomiting

Emblica officinalis

BOTANICAL NAME : *Emblica officinalis* L.

LOCAL NAME : Amla

FAMILY : Euphorbiaceae

HABITAT : Tree

MEDICINAL USES : Antioxidant, Antacid, Tonic, Mild curative

Vitex negundo

BOTANICAL NAME : *Vitex negundo* L.

LOCAL NAME : Nagod

FAMILY : Verbenaceae

HABITAT : Shrub

MEDICINAL USES : Cough, Backache, Rheumatic pain

Vitex negundo

BOTANICAL NAME : *Hibiscus rosa-sinesis* L.

LOCAL NAME : Jasud

FAMILY : Malvaceae

HABITAT : Shrub

MEDICINAL USES : Edible, Hair care, Used as pH Indicator, Anti-Oxidant

Nyctanthes arbor-tirtis

BOTANICAL NAME : *Nyctanthes arbor-tirtis*

LOCAL NAME : *Parijat*

FAMILY : *Oleaceae*

HABITAT : *Shrub or Small tree*

MEDICINAL USES : *Antibacterial, Treating Leihmaniasis and also nac-tural dye*

Jatropha gossypifolia

BOTANICAL NAME : *Jatropha gossypifolia* L.

LOCAL NAME : Jatropha

FAMILY : **Euphorbiaceae**

HABITAT : Herb

MEDICINAL USES : Antidiarrhoeal, Antipyretic, analgesic, Bio fuel, used as fertilizer

Thevatia peiuviana

BOTANICAL NAME : *Thevatia peiuviana* L.

LOCAL NAME : Yellow Oleander

FAMILY : Apocynaceae

HABITAT : Tropical shrub or Small tree

MEDICINAL USES : Antibacterial

Nerium indicum

BOTANICAL NAME : *Nerium indicum* L.

LOCAL NAME : Red Oleander

FAMILY : Apocynaceae

HABITAT : Shrub

MEDICINAL USES : Cardiac, Illness, Asthma, Scabies, Cancer, Epilepsy

Caesalpinia pulcherrina



BOTANICAL NAME : *Caesalpinia pulcherrina* L.

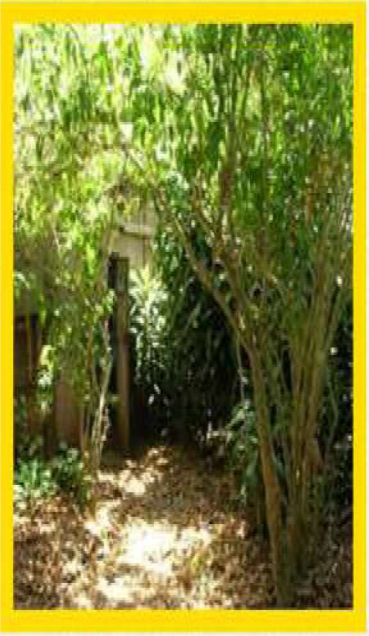
LOCAL NAME : Galtoro

FAMILY : Fabaceae

HABITAT : Shrub

MEDICINAL USES : Antioxidant, Antihistamines

Caesalpinia pulcherrina



BOTANICAL NAME : *Cestrum nocturnum* L.

LOCAL NAME : Raat Ki Rani

FAMILY : Solanaceae

HABITAT : Small tree

MEDICINAL USES : Epilepsy, Headaches, Nervous imbalances

Canna iadica

BOTANICAL NAME : *Canna iadica* L.

LOCAL NAME : Canna

FAMILY : Cannaceae

HABITAT : Shrub

MEDICINAL USES : Diuretic, Diaphoretic

Euphorbia milli

BOTANICAL NAME : *Euphorbia milli*

LOCAL NAME : Desert Rose

FAMILY : Euphorbiaceae

HABITAT : Evergreen shrub

MEDICINAL USES : Antipyretic, Nasal ulcers, Kidney stones

Tabernaemontana divartica

BOTANICAL NAME : *Tabernaemontana divartica R. Br. Ex*

LOCAL NAME : *Tagar*

FAMILY : *Apocynaceae*

HABITAT : *Shrub*

MEDICINAL USES : *Anticancerous, Antibacterical*

Tagetes erecta

BOTANICAL NAME : *Tagetes erecta* L.

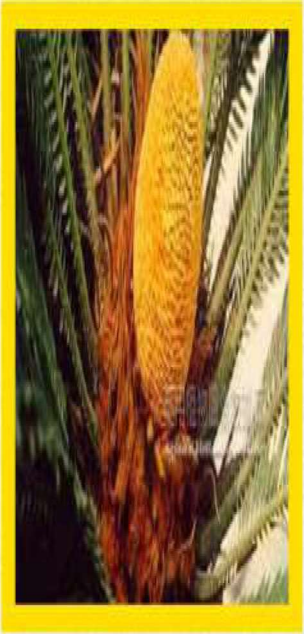
LOCAL NAME : Marigold

FAMILY : Asteraceae

HABITAT : Shrub

MEDICINAL USES : Stomach pain, Colds and Coughs, Mumps, Menstrual disorders

Cycas revoluta



BOTANICAL NAME : *Cycas revoluta* (Thunb)

LOCAL NAME : Cycas

FAMILY : Cycadaceae

HABITAT : Small perennial herb

MEDICINAL USES : Rheumatism, Tumours, Diuretic, Cancer

Lentana camara

BOTANICAL NAME : *Lentana camara* L.

LOCAL NAME : Lentana

FAMILY : Verbenaceae

HABITAT : Evergreen conifer

MEDICINAL USES : Cancer, Chicken pox, Measles, Asthma

Casuarina equisetofolia

BOTANICAL NAME : *Casuarina equisetofolia* L.

LOCAL NAME : Sharu

FAMILY : Cupressaceae

HABITAT : Succulent plant

MEDICINAL USES : Toothache, Chronic diarrhoea, Dysentery, Mouthwash

Aloe vera




BOTANICAL NAME : *Aloe vera* L.

LOCAL NAME : Kuvarpathu

FAMILY : Aloeaceae

HABITAT : Shrub

MEDICINAL USES : Fever, Epilepsy, Asthma, Bleeding

Ocimum sanctum

BOTANICAL NAME : *Ocimum sanctum* L.

LOCAL NAME : Tulsi

FAMILY : Labiatae

HABITAT : Half-hardy annual plant

MEDICINAL USES : Antimicrobial, Antimalarial, Antistress

Ocimum baslicu

BOTANICAL NAME : *Ocimum baslicum* L.

LOCAL NAME : Bantulsi

FAMILY : Labiatae

HABITAT : Herb

MEDICINAL USES : Antispasmodic, Carminative, Stomach ache

Bryophullum pinnatum

BOTANICAL NAME : *Bryophullum pinnatum* L.

LOCAL NAME : Panfuti

FAMILY : Crassulaceae

HABITAT : Deciduous shrub

MEDICINAL USES : Digestive, Diuretic, Expectorant, Carminative

Poncirus trifoliata

BOTANICAL NAME : *Poncirus trifoliata* L.

LOCAL NAME : Bitter orange

FAMILY : Rutaceae

HABITAT : Annual herb

MEDICINAL USES : Haemostatic, Vulnerary, Mucilaginous

Datura stramonium

BOTANICAL NAME : *Datura stramonium* L.

LOCAL NAME : Dhatura

FAMILY : Solanaceae

HABITAT : Deciduous tree

MEDICINAL USES : Astringent, Diaphoretic, Ophthalmic, Hypoglycaemic

Morus alba

BOTANICAL NAME : *Morus alba* L.

LOCAL NAME : Mulberry

FAMILY : Moraceae

HABITAT : Plant

MEDICINAL USES : Asthma, Gastrointestinal problems, Boils, Headaches

Calotropis procera

BOTANICAL NAME : *Calotropis procera*

LOCAL NAME : Akado

FAMILY : Asclepidiaceae

HABITAT : Deciduous tree

MEDICINAL USES : Constipation, Stomach ulcers, Tooth ache, Joint pain

Terminalia arjuna

BOTANICAL NAME : *Terminalia arjuna* (Roxb.)

LOCAL NAME : Arjun sadal

FAMILY : Combretaceae

HABITAT : Tropical tree

MEDICINAL USES : Coronary artery disease, Heart failure, Hypertension

Syzgium cumini

BOTANICAL NAME : *Syzgium cumini* L.

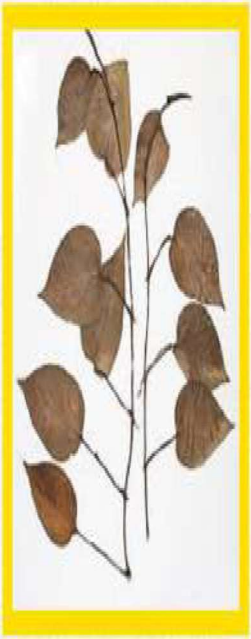
LOCAL NAME : Jambu

FAMILY : Myrtaceae

HABITAT : Climber

MEDICINAL USES : Antistress, Antidiabitic

Pothos scandes



BOTANICAL NAME : *Pothos scandes*

LOCAL NAME : Money plant

FAMILY : Araceae

HABITAT : Succulent plants, shrubs, trees

MEDICINAL USES : Plant absorbs many nitrates and used them for gorwth

toxic contain plant

Jatropha curcas

BOTANICAL NAME : *Jatropha curcas* L.

LOCAL NAME : Jatropha

FAMILY : Euphorbiaceae

HABITAT : Deciduous, Thorny tree

MEDICINAL USES : Antidiarrhoeal, Antipyretic, analgesic, Bio fuel, used as fertilizer

Acacia catechu

BOTANICAL NAME : *Acacia catechu* (L.f)Wild var.

LOCAL NAME : Kher- Katho

FAMILY : Fabaceae

HABITAT : Shrub, Tree

MEDICINAL USES : Mouth ulcers

Adhatoda vasica

BOTANICAL NAME : *Adhatoda vasica* L.

LOCAL NAME : Ardusi

FAMILY : Acanthaceae

HABITAT : Tree

MEDICINAL USES : Used as cough and cold, Antibackterial and Antimalarial

Azadirachta indica

BOTANICAL NAME : *Azadirachta indica* L.

LOCAL NAME : Neem

FAMILY : Meliaceae

HABITAT : Deciduous evergreen tree

MEDICINAL USES : Antimicrobial, Antimalarial, Skin diseases

Tecomella undulata

BOTANICAL NAME : *Tecomella undulata* D. Don

LOCAL NAME : Raktarohida

FAMILY : Bignoniaceae

HABITAT : Deciduous shrub or small tree

MEDICINAL USES : Antimelerial, Good source of timber, used curing urinary and liver disorders.

Martenus emarginata

BOTANICAL NAME : *Martenus emarginata*

LOCAL NAME : Viklo

FAMILY : Celasteraceae

HABITAT : Evergreen tree

MEDICINAL USES : Used to cure jaundice, good source of curing liver disorders

Michelia champaca

BOTANICAL NAME : *Michelia champaca*

LOCAL NAME : Champa

FAMILY : Magnoliacea

HABITAT : Tree

MEDICINAL USES : Fragrance, timber and Antimelarial

Aegle marmelos

BOTANICAL NAME : *Aegle marmelos* L.

LOCAL NAME : Bael

FAMILY : Rutaceae

HABITAT : Evergreen tree

MEDICINAL USES : Used in aegeline and liver injury, Cantrol Scidity, usefull in hair loss, heart deiseases, gastric disorders, anti-microbial, anti-inflammatory, constipation, dysenery and diarrhoea

Polyanthia longifolia Sonn.

BOTANICAL NAME : *Polyanthia longifolia Sonn.*

LOCAL NAME : Asopalav

FAMILY : Annonaceae

HABITAT : Woody climber

MEDICINAL USES : Anti - microbial, ornamental Plant, Anti - cancerous

Bougainvillea spectabilis Wild

BOTANICAL NAME : *Bougainvillea spectabilis Wild*

LOCAL NAME : Baganvilas

FAMILY : Nyctaginaceae

HABITAT : Deciduous tree

MEDICINAL USES : Used in diabetes 2, treatment for low bloodpressure, used in cough, soure throat

Delonix regia

BOTANICAL NAME : *Delonix regia* (Bojer.) Raf.

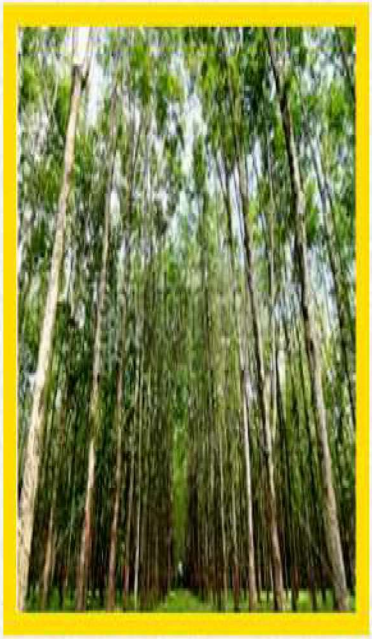
LOCAL NAME : Gulmohar

FAMILY : Fabaceae

HABITAT : Tree

MEDICINAL USES : Antimicrobial, Antioxidant, Antidiarrhoeal

Hevea brasiliensis



BOTANICAL NAME : *Hevea brasiliensis*

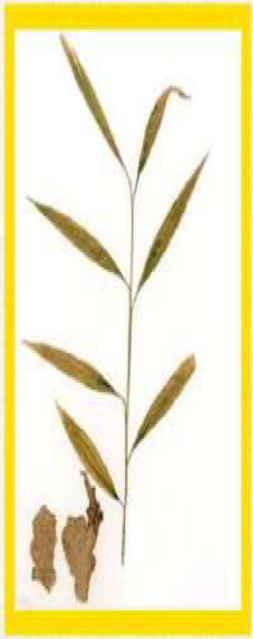
LOCAL NAME : Para rubber

FAMILY : Euphorbiaceae

HABITAT : Herbaceous perennial

MEDICINAL USES : Disinfectant, Anticoagulant, Ant oxidative

Zingiber officinale



BOTANICAL NAME : *Zingiber officinale* L.

LOCAL NAME : Ginger

FAMILY : Zingiberaceae

HABITAT : Hearb

MEDICINAL USES : Nausea, Vomiting, Throat infection

Adenium obesum

BOTANICAL NAME : *Adenium obesum* L.

LOCAL NAME : Desert rose

FAMILY : Apocynaceae

HABITAT : Deciduous shrub or tree

MEDICINAL USES : Latex is applied to decaying teeth and speptic wounds, used in Cardic rhythm problems

Ficus carica

BOTANICAL NAME : *Ficus carica* L.

LOCAL NAME : Anjir

FAMILY : Moraceae

HABITAT : Annual crop

MEDICINAL USES : Anti-oxidant, anticancer, hepatoprotective, hypoglycamic, antipyretic

Zea mays

BOTANICAL NAME : *Zea mays* L.

LOCAL NAME : Maize

FAMILY : Poaceae

HABITAT : Grasses

MEDICINAL USES : Detoxifier, Urinary and genital infections, Skin rashes, Stomach disorders

Sorghum vulgare

BOTANICAL NAME : *Sorghum vulgare* L.

LOCAL NAME : Jowar

FAMILY : Gramineae

HABITAT : Annual weedy plants

MEDICINAL USES : Diuretic, Demulcent, Urinary & kidney complaints

Brassica nigra

BOTANICAL NAME : *Brassica nigra* L.

LOCAL NAME : Mustard

FAMILY : Brassicaceae

HABITAT : Flowering plant

MEDICINAL USES : Appetizer, Digestive, Diuretic, Emetic, Irritant

Cuminum cyminum

BOTANICAL NAME : *Cuminum cyminum* L.

LOCAL NAME : Shevanti

FAMILY : Asteraceae

HABITAT : Biennial plants

MEDICINAL USES : Larvicidal effects, Lowering blood pressure, Strengthen bones

Allium cepa

BOTANICAL NAME : *Allium cepa* L.

LOCAL NAME : Onion

FAMILY : Lilliaceae

HABITAT : Annual plant

MEDICINAL USES : Diuretic, Expectorant, Febrifuge and vulenry properties

Trigonella foenum

BOTANICAL NAME : *Trigonella foenum* L.

LOCAL NAME : Methi

FAMILY : Fabiaceae

HABITAT : Herbaceous biennial or perennial plant (rarely)

MEDICINAL USES : Decreases blood cholesterol level, Anticholesterolemic, Demulcent

Beta vulgaris

BOTANICAL NAME : *Beta vulgaris* L.

LOCAL NAME : Beet root

FAMILY : Chenopodiaceae

HABITAT : Flowering plant

MEDICINAL USES : Anaemia, Yellow jaundice, Toothache, Dandruff

Spinacia oleracea

BOTANICAL NAME : *Spinacia oleracea* L.

LOCAL NAME : Spinach

FAMILY : Chenopodiaceae

HABITAT : Annual plant

MEDICINAL USES : Urinary calculi, Inflammation of bowels

Coriandrum sativum

BOTANICAL NAME : *Coriandrum sativum* L.

LOCAL NAME : Coriander

FAMILY : Apiaceae

HABITAT : Herbaceous flowering plant

MEDICINAL USES : Urinary calculi

Musa sapientum

BOTANICAL NAME : *Musa sapientum* L.

LOCAL NAME : Banana

FAMILY : Musaceae

HABITAT : Small tree

MEDICINAL USES : Anthelmintic, Reducing broncheocele

Chrysanthemum morifolium




BOTANICAL NAME : *Chrysanthemum morifolium* L.

LOCAL NAME : Shevanti

FAMILY : Asteraceae

HABITAT : Perennial plant

MEDICINAL USES : Chest pain, High blood pressur, Diabetes, Fever, Swelling

Artemisia indica



BOTANICAL NAME : *Artemisia indica* L.

LOCAL NAME : Machipatram

FAMILY : Asteraceae

HABITAT : Flowering plant

MEDICINAL USES : used to treat many diseases like Asthama, inflammatory joint disease.

Ixora coccinea



BOTANICAL NAME : *Ixora coccinea* L.

LOCAL NAME : Rangan

FAMILY : Rubiaceae

HABITAT : Annual or biennial

MEDICINAL USES : Wounds, Skin ulcers, Hiccups, Nausea, Anorexia

Raphanus sativus



BOTANICAL NAME : *Raphanus sativus*

LOCAL NAME : Radish

FAMILY : Brassicaceae

HABITAT : Evergreen coniferocious tree

MEDICINAL USES : Antiseptic, Appetite stimulant, Powerful immune booster

Thuja occidentalis



BOTANICAL NAME : *Thuja occidentalis*

LOCAL NAME : Thuja

FAMILY : Cupressaceae

HABITAT : Sub shrub

MEDICINAL USES : Bronchitis, Osteoarthritis, Joint pain, Muscle pain

Vinca rosea Pervinca mill.



BOTANICAL NAME : *Vinca rosea Pervinca mill.*

LOCAL NAME : Barmasi

FAMILY : Apocynaceae

HABITAT : Herbaceous perennial plant

MEDICINAL USES : Anticancer, Prevention of dementia

Mentha arvensis



BOTANICAL NAME : *Mentha arvensis* L.

LOCAL NAME : Pudina

FAMILY : Lamiaceae

HABITAT : Herb

MEDICINAL USES : Expectorant, mouth ulcers, Stomach ache, Fever

Cymbopogon citrus Hack



BOTANICAL NAME : *Cymbopogon citrus Hack.*

LOCAL NAME : Green tea

FAMILY : Gramineae

HABITAT : Annual herb

MEDICINAL USES : Reducing fever, Stomach cramps

Trachyspermum ammi

BOTANICAL NAME : *Trachyspermum ammi L.*

LOCAL NAME : *Ajwain*

FAMILY : *Apiaceae*

HABITAT : *Plant*

MEDICINAL USES : *Digestion, cold and flu, Stomach ache, Asthma*

Withania somnifera



BOTANICAL NAME : *Withania somnifera* L.

LOCAL NAME : Ashwagandha

FAMILY : Solanaceae

HABITAT : Evergreen shrub or small crooked tree

MEDICINAL USES : Artritis, Anxiety, Insomnia, Asthma

Carrisa carandas

BOTANICAL NAME : *Carrisa carandas*

LOCAL NAME : Karamdi

FAMILY : Apocynaceae

HABITAT : Tree

MEDICINAL USES : Scabies, intestinal Worm, Anthelmintic, pruriteus

Commiphora wightii



BOTANICAL NAME : *Commiphora wightii* (stocks) Hook

LOCAL NAME : Guggul

FAMILY : Burseraceae

HABITAT : Shrub

MEDICINAL USES : Atherosclerosis, Arthritis, Acne, Weight loss

Rauwolfia sepentina



BOTANICAL NAME : *Rauwolfia sepentina* L. Benth.

LOCAL NAME : Sarpagandha

FAMILY : Apocynaceae

HABITAT : Fruit bearing deciduous shrub or small tree

MEDICINAL USES : High blood pressure, Constipation, Snake bites, Fever

Punica gratanum



BOTANICAL NAME : *Punica gratanum* L.

LOCAL NAME : Pomegranate

FAMILY : Puniaceae

HABITAT : Perennial plant

MEDICINAL USES : Antioxidant, Stomach ache, Osteoarthritis

Cissus quadrangularis



BOTANICAL NAME : *Cissus quadrangularis* L.

LOCAL NAME : Hadsakal

FAMILY : Vitaceae

HABITAT : Climber

MEDICINAL USES : Obesity, Diabetes, Bone fractures, Peptic ulcer

Asparagus racemosus



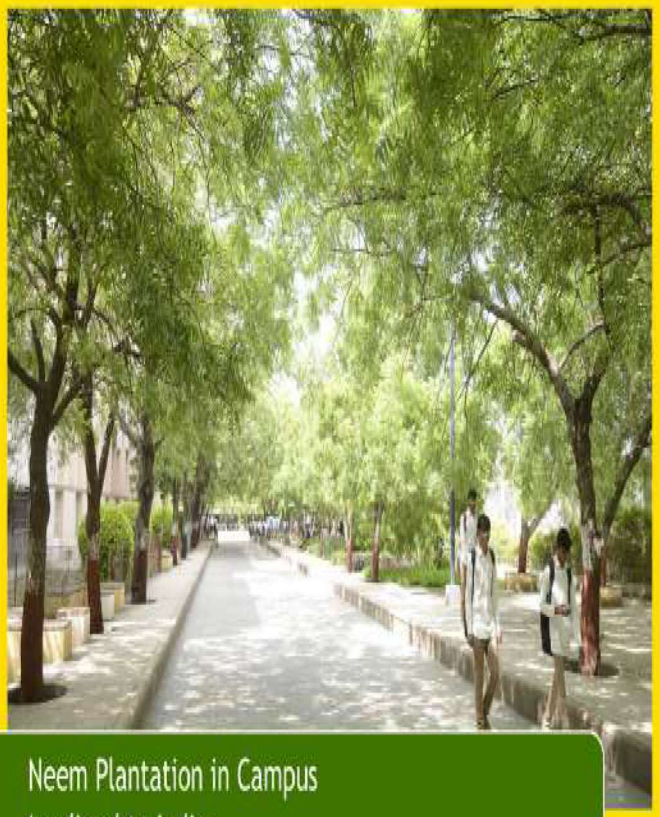
BOTANICAL NAME : *Asparagus racemosus* (Wild.) Oberm.

LOCAL NAME : Satawari

FAMILY : Lilliaceae

HABITAT : Shrub

MEDICINAL USES : Upset stomach, Constipation, Diabetes, Cancer, Anxiety



Neem Plantation in Campus
Azadirechta indica

1- Lowsonia Innermis , 2 - Palm Verity
Kadvi Mehndi

Bamboo sp.
Vans

Caryota Urens
Shivjata

Fan Palm

Cycas sp.

Lawsonia Innermis

Garden Croton
Iresine herbstii acuminata

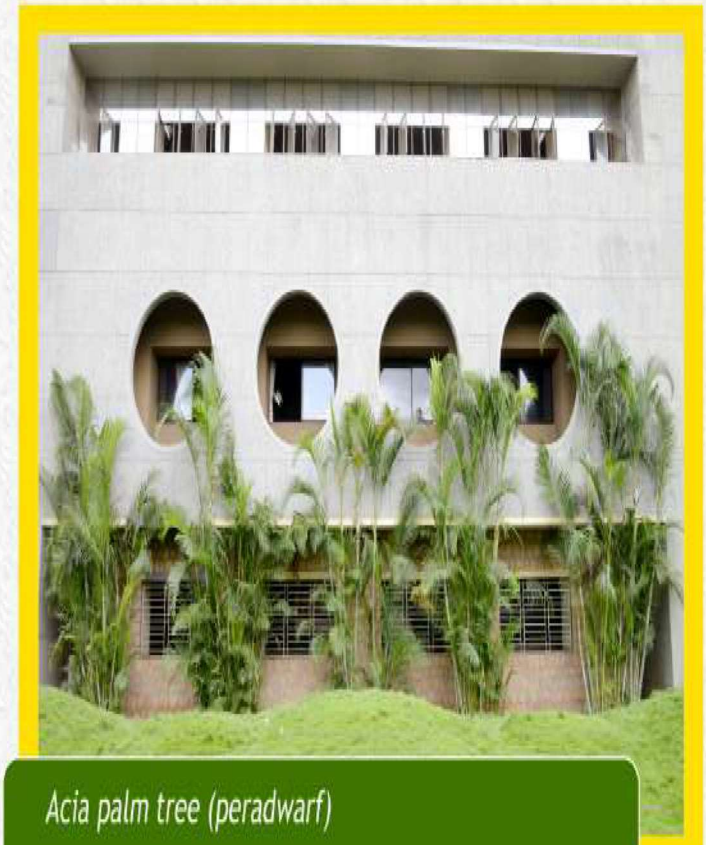
Arica palm sp.

1- Tradescantia spathacea - Sitara
2- Tradescntia purpurea - purple heart

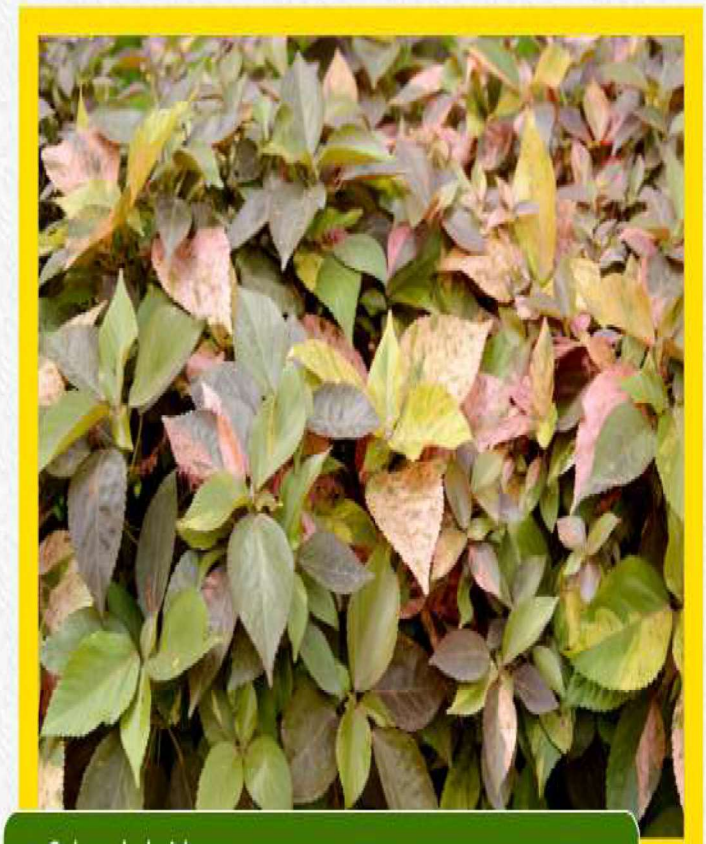
Arnica chamisso - Saatgut

1- Vinca rosea - Barmasi
2 - Canna indica - Bajarbattu

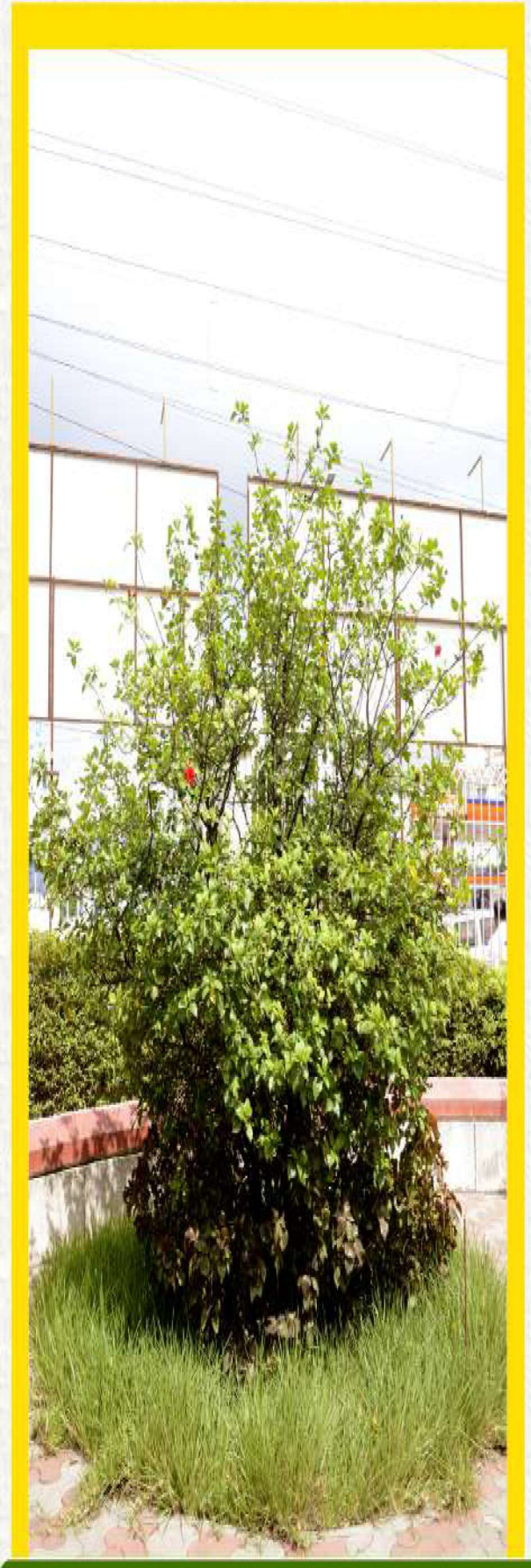
Carytourens - fishtail palm



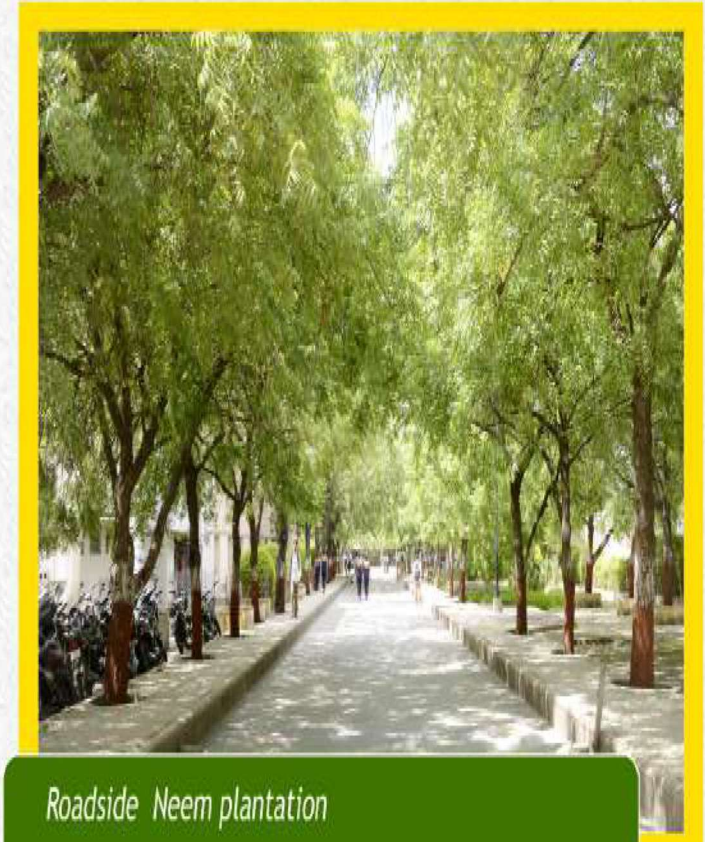
Acia palm tree (peradwarf)



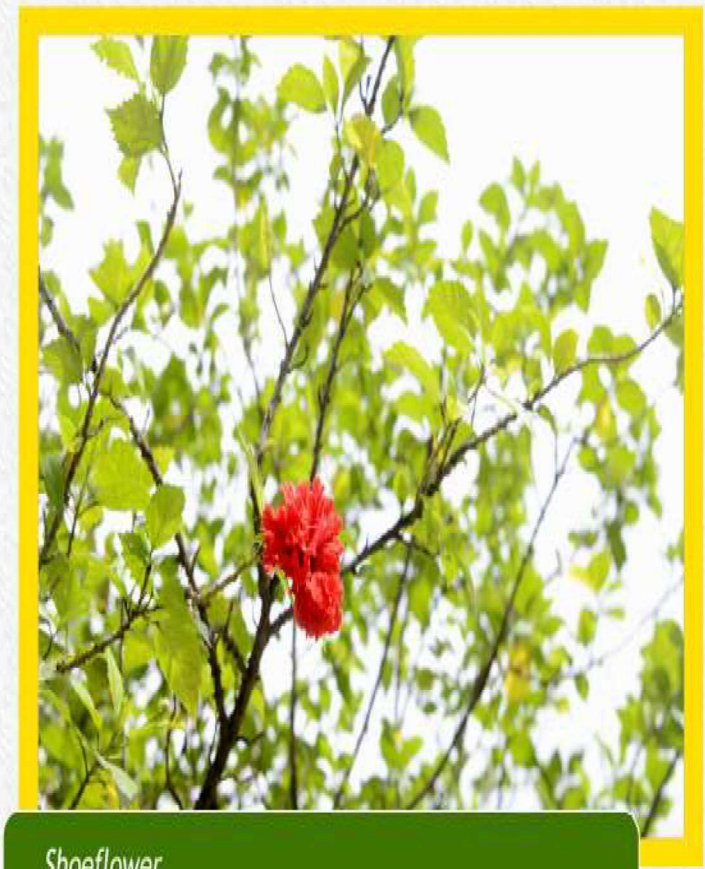
Coleus hybrid sp.



Hibiscus rosa - sinensis
Jasood



Roadside Neem plantation



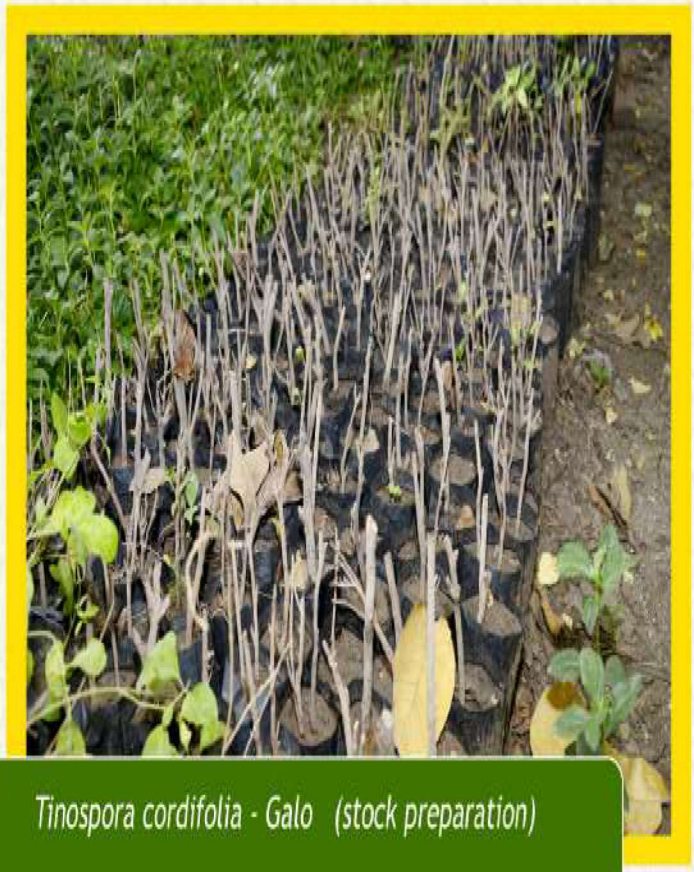
Shoeflower

Tridex procumbens - pardeshi bhangro

Tridex daisy

Dracaena sp.

Clitoria ternetea - Abo

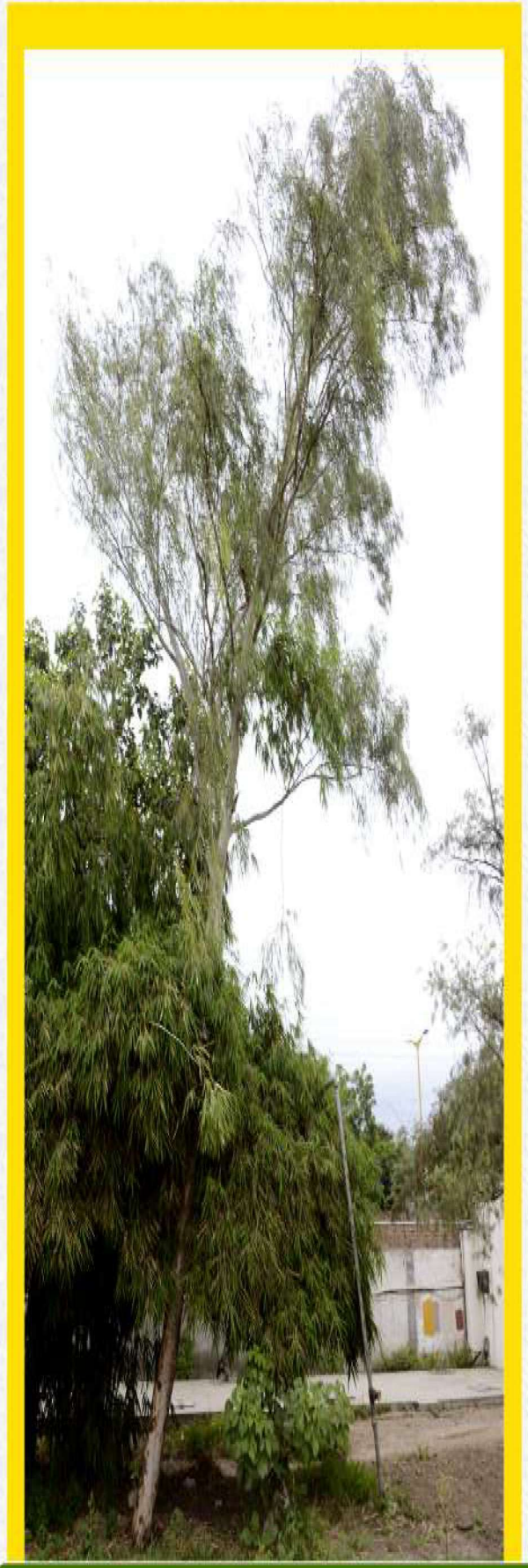


Tinospora cordifolia - Galo (stock preparation)

Commelina beghalensis - Shismuliyu

Boghanvallia spectabilis - bogan vel

Dhatura fastiosa - Safed Dhaturo



Eucalyptus obliqua - Neelgiri

Tecomella undulata - Tecoma

Medicinal Garden visit

Medicinal Garden visit for plant identification


Medicinal Garden


Citrus limon L.
Rutaceae
LIMBUDI


Emblica officinalis Gaertn.
Euphorbiaceae
AMLA


Putranjiva roxburghii Wall.
Putranjivaceae
PUTRANJIVA


Punica granatum L.
Punicaceae
POMEGRANATE


Punica granatum L.
Punicaceae
POMEGRANATE


Nerium indicum Mill
Apocynaceae
RED OLEANDER


Apocynaceae
TAGAR


Apocynaceae


Casuarina equisetifolia
Casuarinaceae
SHARU


Rosa damascena
Rosaceae
UVAB

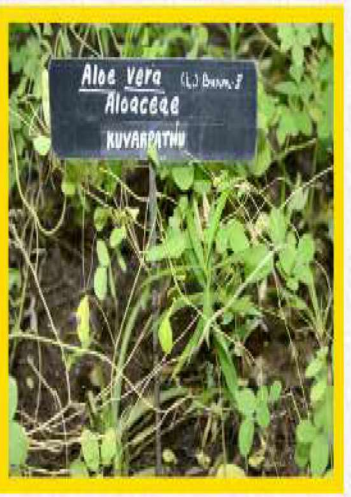

Adhatoda Vasica
Acanthaceae
ARDUSI


Asparqus racemosus L
Liliaceae
SATAWA


Rauwolfia Serpentina L.
Apocynaceae
SARPA GANDHA


Manilkara hexandra
Sapotaceae
Ayyan


Bryophyllum pinnatum
Crassulaceae
Panfuti


Aloe Vera (L.) Burm. f
Aloaceae
KUYARPATHU


Nyctanthes arbor-tristis
Oleaceae
Parijat


Gendarussa Vulgaris
Acanthaceae
ADATHODA


Canna indica L.
Cannaceae
CANNA

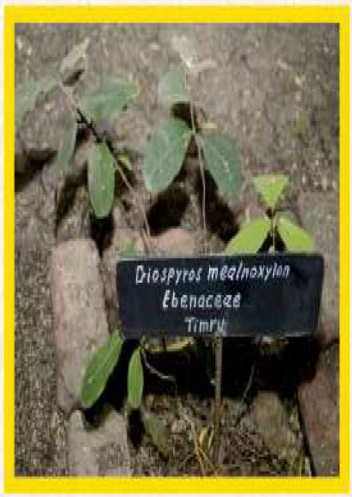

Euphorbia milii
Euphorbiaceae
DESERT ROSE


Lantana camara
Verbenaceae
LENTANA


Adenium obesum
Apocynaceae
Desert rose


Ficus carica L
Moraceae
ANJIR


Musa sapientum L.
Musaceae
Banana

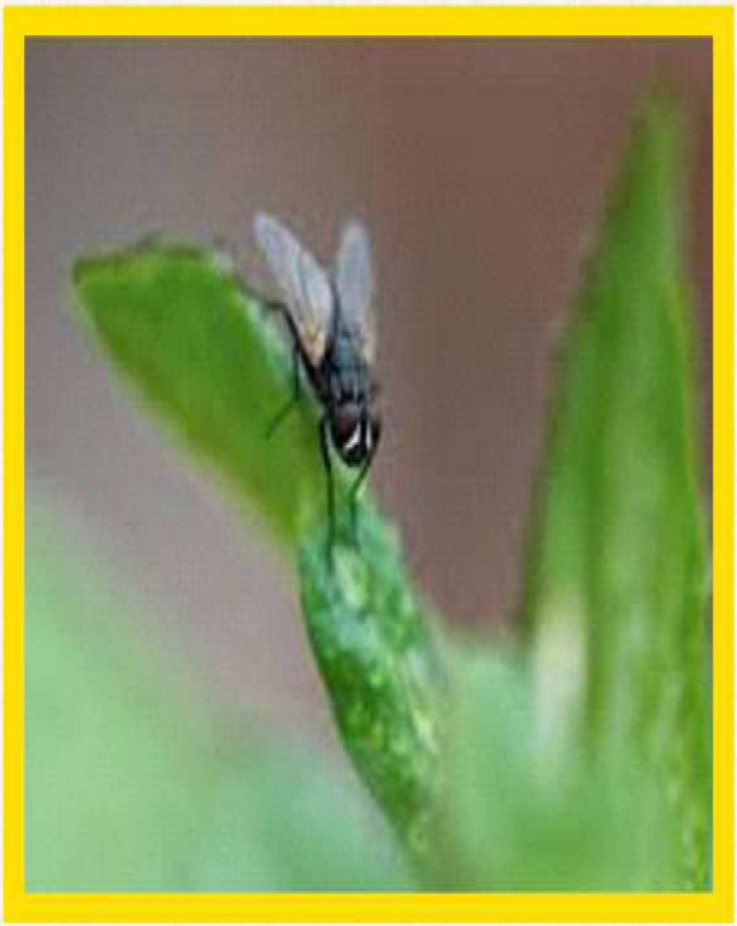

Diospyros mealnoxylon
Ebenaceae
Timpi


TIMPI


Celastraceae

Fauna of Atmiya Campus

House fly



COMMON NAME : House fly

SCIENTIFIC NAME : Musca domestica

COMMON CHARACTERISTIC : Adults are grey to black, with four dark, longitudinal lines on the thorax, slightly hairy bodies, and a single pair of membranous wings. They have red eyes, set farther apart in the slightly larger female.

Honey bee

COMMON NAME : Honey bee

SCIENTIFIC NAME : Apis

COMMON CHARACTERISTIC : Honey bees measure about 15 mm long and are light brown in color. Honey bees are usually oval-shaped creatures with golden-yellow colors and brown bands.

Honey bee

COMMON NAME : Mosquito

SCIENTIFIC NAME : culicidae

COMMON CHARACTERISTIC : The slender, elongated body of the adult is covered with scales as are the veins of the wings. Mosquitoes are also characterized by long, fragile-looking legs and elongated, piercing mouthparts.

locust

COMMON NAME : locust

SCIENTIFIC NAME : Schistocerca gregaria

COMMON CHARACTERISTIC : These insects are usually solitary, but under certain circumstances become more abundant and change their behaviour and habits, becoming gregarious.

Yellow butterfly

COMMON NAME : Yellow butterfly

SCIENTIFIC NAME : Colias croceus

COMMON CHARACTERISTIC : Adult butterflies have large, often brightly coloured wings, and conspicuous, fluttering flight. The group comprises the large superfamily Papilionoidea, which contains at least one former group, the skippers and the most recent analyses suggest it also contains the moth-butterflies.

Yellow butterfly

COMMON NAME : Yellow butterfly

SCIENTIFIC NAME : Colias croceus

COMMON CHARACTERISTIC : Adult butterflies have large, often brightly coloured wings, and conspicuous, fluttering flight. The group comprises the large superfamily Papilionoidea, which contains at least one former group, the skippers and the most recent analyses suggest it also contains the moth-butterflies.

Dung beetle

COMMON NAME : Dung beetle

SCIENTIFIC NAME : Scrabaeus viettei

COMMON CHARACTERISTIC : Dung beetles are usually round with short wing covers (elytra) that expose the end of the abdomen. They vary in size from 5 to 30 mm (0.2 to about 1.2 inches) and are usually dark in colour, although some have a metallic lustre.

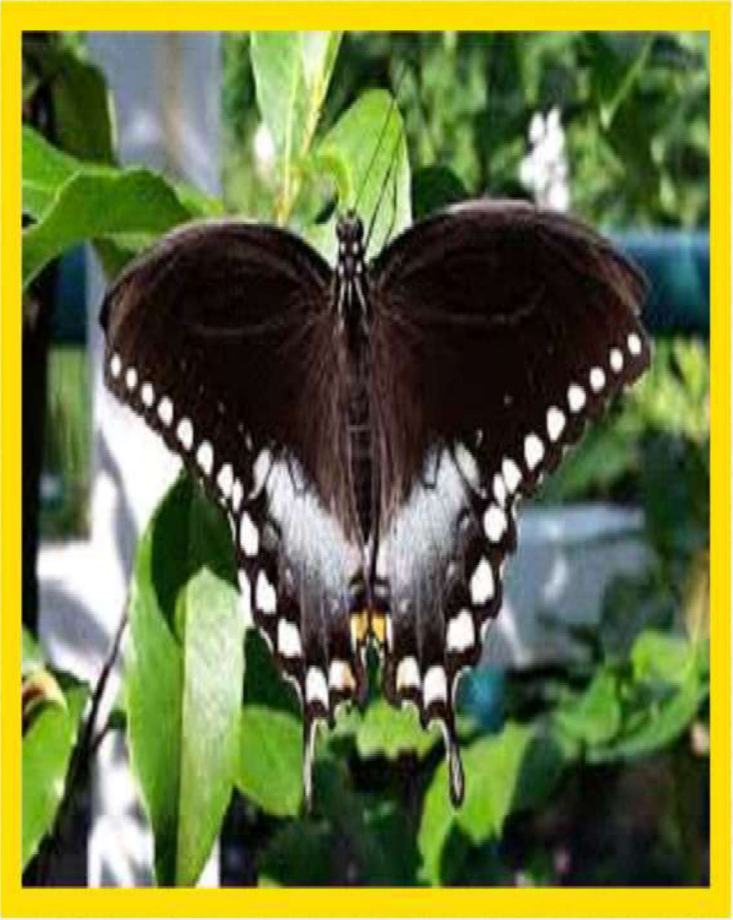
Geometric butterfly

COMMON NAME : Geometric butterfly

SCIENTIFIC NAME : Geometer moths

COMMON CHARACTERISTIC : Many geometrids have slender abdomens and broad wings which are usually held flat with the hind wings visible. As such, they appear rather butterfly-like, but in most respects they are typical moths; the majority fly at night, they possess a frenulum to link the wings,

Spot black butterfly



COMMON NAME : Spot black butterfly

SCIENTIFIC NAME : Monarch butterfly

COMMON CHARACTERISTIC : Wingspan: 3 1/2 - 4 3/4". Superficially similar to Black Swallowtail , the other commonly observed dark swallowtail in Massachusetts. However, readily distinguished by checking the orange pair of spots on the inside corner of the hind wing .

Earth worm

COMMON NAME : Earth worm

SCIENTIFIC NAME : Lumbricina

COMMON CHARACTERISTIC : An earthworm is a tube-shaped, segmented wormfound in the phylum Annelida. They are commonly found living in soil, feeding on live and dead organic matter. An earthworm's digestive system runs through the length of its body.

Cricket

COMMON NAME : Cricket

SCIENTIFIC NAME : Gryllidae

COMMON CHARACTERISTIC : He Gryllidae have mainly cylindrical bodies, round heads, and long antennae. Behind the head is a smooth, robust pronotum. The abdomen ends in a pair of long cerci.

Meat fly

COMMON NAME : Meat fly

SCIENTIFIC NAME : Sacrophagidae

COMMON CHARACTERISTIC : Calliphora vomitoria is 10–14 millimetres long, slightly larger than a housefly. The head and thorax are dull gray, the back of head has long yellow-orange setae and the abdomen is bright metallic blue with black markings.

Bush cricket

COMMON NAME : Bush cricket

SCIENTIFIC NAME : Tettigo niidae

COMMON CHARACTERISTIC : Tettigoniids range in size from as small as 5 to as large as 130 mm. The smaller species typically live in drier or more stressful habitats which may lead to their small size.

Praying mantis

COMMON NAME : Praying mantis

SCIENTIFIC NAME : Mantrdea

COMMON CHARACTERISTIC : Mantises have large, triangular heads with a beak-like snout and mandibles. They have two bulbous compound eyes, three small simple eyes, and a pair of antennae. The articulation of the neck is also remarkably flexible; some species of mantis can rotate their heads nearly 180°.

Dragon fly

COMMON NAME : Dragon fly

SCIENTIFIC NAME : Anisoptera

COMMON CHARACTERISTIC : Dragonflies are predators, both in their aquatic larval stage, when they are known as nymphs or naiads, and as adults. Several years of their lives are spent as nymphs living in fresh water; the adults may be on the wing for just a few days or weeks.

Moth

COMMON NAME : Moth

SCIENTIFIC NAME : Lymantria dispar

COMMON CHARACTERISTIC : The most apparent is the presence of scales that cover the bodies, wings, and a proboscis. The scales are modified, flattened "hairs", and give butterflies and moths their wide variety of colors and patterns.

Calotes

COMMON NAME : calotes

SCIENTIFIC NAME : calotes

COMMON CHARACTERISTIC : Calotes is distinguished from related genera in having uniform-sized dorsal scales, and lacking a fold of skin extending between the cheek and shoulder, and in having proportionately stronger limbs than Pseudocalotes.

Squirrel

COMMON NAME : squirrel

SCIENTIFIC NAME : sciurus

COMMON CHARACTERISTIC : Squirrels typically have slender bodies with bushy tails and large eyes. In general, their fur is soft and silky, though much thicker in some species than others. The coat color of squirrels is highly variable between—and often even within—species.

House sparrow

COMMON NAME : House sparrow

SCIENTIFIC NAME : Passer domesticus

COMMON CHARACTERISTIC : A small bird, it has a typical length of 16 cm and a mass of 24–39.5 gm. Females and young birds are coloured pale brown and grey, and males have brighter black, white, and brown markings.

Pigeon

COMMON NAME : pigeon

SCIENTIFIC NAME : columbidae

COMMON CHARACTERISTIC : They are stout-bodied birds with short necks, and short slender bills that in some species feature fleshy ceres. They primarily feed on seeds, fruits, and plants.

Parrot

COMMON NAME : parrot

SCIENTIFIC NAME : psittaciformes

COMMON CHARACTERISTIC : Characteristic features of parrots include a strong, curved bill, an upright stance, strong legs, and clawed zygodactyl feet. Many parrots are vividly coloured, and some are multi-coloured.

Sunbird

COMMON NAME : Sunbird

SCIENTIFIC NAME : Nectariniidae

COMMON CHARACTERISTIC : They are small, slender passerines from the Old World, usually with downward-curved bills. Many are brightly coloured, often with iridescent feathers, particularly in the males. Many species also have especially long tail feathers.

Tailor bird

COMMON NAME : Tailor bird

SCIENTIFIC NAME : Orthotormes

COMMON CHARACTERISTIC : These warblers are usually brightly colored, with green or grey upper parts and yellow white or grey under parts. They often have chest nut on the head.

Tailorbirds have short rounded wings, short tails, strong legs and long curved bills.

Dove

COMMON NAME : Dove

SCIENTIFIC NAME : Columbidae

COMMON CHARACTERISTIC : They are stout-bodied birds with short necks, and short slender bills that in some species feature fleshy ceres. They primarily feed on seeds, fruits, and plants.

Myna

COMMON NAME : Myna

SCIENTIFIC NAME : Acridotheres tristis

COMMON CHARACTERISTIC : Mynas can be distinguished in the more terrestrial adaptions of the latter, which usually also have less glossy plumage except on the heads and longer tails. The Bali myna which is nearly extinct in the wild is highly distinctive.

Bat

COMMON NAME : Bat

SCIENTIFIC NAME : Disambiguation

COMMON CHARACTERISTIC : Bats are with their forelimbs adapted as wings, they are the only mammals naturally capable of true and sustained flight. Bats are more manoeuvrable than birds, flying with their very long spread-out digits covered with a thin membrane or patagium. The smallest bat, and arguably the smallest extant mammal, is Kitti's hog-nosed bat, which is 29–34 mm in length, 15 cm across the wings and 2–2.6 g in mass.

Barbet bird

COMMON NAME : Barbet bird

SCIENTIFIC NAME : Megalaimidae

COMMON CHARACTERISTIC : Barbets are named for the bristles at the bases of their stout, sharp bills. They are big-headed, short-tailed birds, 9–30 cm (3.5–12 inches) long, greenish or brownish, with splashes of bright colours or white. The smallest barbets are known as tinkerbirds.

shrew

COMMON NAME : shrew

SCIENTIFIC NAME : soricidae

COMMON CHARACTERISTIC : All shrews are comparatively small, most no larger than a mouse. The largest species is the Asian house shrew of tropical Asia, which is about 15 cm long and weighs around 100 g;[2] several are very small, notably the Etruscan shrew , which at about 3.5 cm and 1.8 g is the smallest living terrestrial mammal.

Rat

COMMON NAME : Rat

SCIENTIFIC NAME : Rattus

COMMON CHARACTERISTIC : The best-known rat species are the black rat and the brown rat . The group is generally known as the Old World rats or true rats, and originated in Asia. Rats are bigger than most Old World mice, which are their relatives, but seldom weigh over 500 grams in the wild.

Bulbul

COMMON NAME : Bulbul

SCIENTIFIC NAME : Plycononotidae

COMMON CHARACTERISTIC : Bulbuls are short-necked slender passerines. The tails are long and the wings short and rounded. In almost all species the billis slightly elongated and slightly hooked at the end.

Cockroach

COMMON NAME : Cockroach

SCIENTIFIC NAME : Periplaneta

COMMON CHARACTERISTIC : Cockroaches are somewhat generalized insects without special adaptations like the sucking mouthparts of aphids and other true bugs; they have chewing mouthparts and are likely among the most primitive of living neopteran insects. They are common and hardy insects, and can tolerate a wide range of environments from Arcticcold to tropical heat.

Spider

COMMON NAME : Spider

SCIENTIFIC NAME : Araneae

COMMON CHARACTERISTIC : Their abdomens bear appendages that have been modified into spinnerets that extrude silk from up to six types of glands. Spider webs vary widely in size, shape and the amount of sticky thread used.

- **Atmiya University**
- **Atmiya Institute of Technology & Science**
  (Engineering, MCA, MBA)
- **Atmiya Institute of Tech. & Sci. for Diploma Studies**
- **Atmiya Institute of Pharmacy**
- **Gyanyagna College of Science & Management**
- **Shree M. & N. Virani Science College** (Autonomous)

- **Suhrad K. G. Section** (Nursery, Jr.K. G., Sr.K. G.)
- **Shree Atmiya Shishu Vidyamandir** (CBSE & GSEB)
- **Shree Sarveshwar Vidyamandir**
  (Secondary & Higher Secondary)

Yogidham Gurukul, Kalawad Road, Rajkot - 360005, (Gujarat) INDIA
1800 233 999 999 info@atmiyauni.ac.in www.atmiyauni.ac.in