Annual Report 2023-24

Green Ahalia

Green Ahalia

Ahalia International Foundation

Palakkad, Kerala

2024

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Message

Over the years green Ahalia has been evolving into a major centre of biodiversity and land utilisation in a garden perspective. Their metamorphosis through thematic approach of garden components is amply narrated in this report which follows the previous two reports brought out annually. I can see a great transformation of the development and broader impact of the Green Ahalia in implelementing the programmes that has received a lot of credibility and acclaim in the botanic garden arena of the country.

A perusal of the report will showcase highlights of the extra effort team has put in to consolidate their position as a major bioresource model site. The themes established by them are of national relevance and through innovative and interesting approach. I am sure this will go a long way in contributing to the vision and mission of the organisation. Every where we can see the user-friendly approach adopted in the implementation of the planned activities. The garden is now in a position to highlight the biodiversity values of the district and poised to become a central point of attraction to divesre stake holders especially the students, researchers and academicians along with other user agencies. Green Ahalia's societal impact is manifested through the several trainings they organised and outreach activities conducted. Their support to schools in establishing herbal gardens has received much applause from concerned agencies.

I find a major thrust is in conservation of threatened plants and genetic resources by establishing conservation garden, germplasm banks, propagation research etc. A successful initiative to establish a garden for Mangrove species is unimaginable in the Ahalia conditions. Similar is the case with ferns and gymnosperms curiously growing here under simulated conditions.

I can see their networking with other organisation has got consolidated this time with more organisations being linked. The MoU with Mercy College and IFGTB are going to pay rich dividends. The advisory board's support and guidance has been crucial in the direction the group has received and the position they reached. Similarly, several experts who visited the garden had been constantly in touch and helps the team to manifest their efficiency. Several schools in the district has been benefited by visiting the Green Ahalia gardens for

their biological syllabus teaching and learning. The internship offered here though limited in number has been attracting post graduate students genuinely desitring to know deep into the world of botany through different frontiers.

The present report also highlights dynamic website of Green Ahalia and their social media accounts. It's gratifying to note that Green Ahalia has secured few project grants from national agencies highlighting their credibility. My appreciations to the team and look forward to more contributions in future too.

I wish every success to the Green Ahalia endeavour to excel in the field.

Dr. V. S. Gopal,
Chairman, Ahalia Group

Preface

Year after year we have been bringing out this annual report pertaining to our year long work depicting the implementation details, progress, achievements and outreach efforts. This year too we could present a number of activities that we did over the past months. As usual, we have been able to add few new themes to the garden, substantial number of new species introduced to the garden, new trials on model cultivation initiated and much more. A spectacular activity has been in the field of macro-propagation using stem cuttings and even root cutings in our mist chamber facility especially for those plants that are having limited chance of propagation through the seed route. We have also gone for large scale cultivation and establishment of germplasm for important species jointly with reputed institutes like IFGTB and KFRI. The Gmelina germplasm with the clones provided by IFGTB is doing extremely well. So is the Mango germplasm with several commercial varieties thriving well at our new location at Chayathara. We have not only forest tree plantation with the support of the Social Forestry Division, Palakkad but also grown selected RET plants provided by KFRI here. This works as a new annex to our main field. We continued with our efforts to establish and maintain a seed museum and start a herbarium for the campus flora.

We stressed on our outreach activities through workshops, seminars, conducting exposure visits etc and participating in district level exhibitions and events. We partnered with schools and education institutions to establish herbal gardens. Our team also participated in few national events elsewhere in the country. The participation in the BGCI meet and Pondicherry by our team is significant where we could establish linkages further. The team had also been on exposure visit to reputed gardens elsewhere and field collection spots focusing on threatened plants. As part of the expansion of networking and linkage we could add up further MoUs. We are also glad to receive several eminent personalities to the campus that could result in new dimensions and perspectives to the garden. Their visit has resulted in adding new plants to our Smruthi Vatika reminding us of the good time we shared with them.

Our website and social media activity also got momentum with new features being added and making it more dynamic as much as we could. The feature on star plants of the week is one such feature to mention. Few of the encouraging activities we had are the enhanced foot fall and visit by School and college students who have benefited by our thematic gardens. Our team had also given lectures in Kendriya Vidy-

alay's in the district. The support to school herbal garden has gained momentum with our team helping schools technically and materially with design, seedlings and signages.

We have also been able to secure few projects which are externally funded. Our NMPB project was scrutinised and monitored by the funding agency and appreciated the progress and results achieved. We ensure quality out put and achive the desired results.

With all these experiences we are now consolidating our foundation and move forward to higher echalions in garden existence to impact further the stake holders and ensure our contribution to biodiversity management and conservation. We look forward to inching towards self sustencance and deeper involvement on conservation and sustainable use horizone. Our development graph shows that we will reach the destination soon enabling us to serve the community as a major centre of attraction.

K. Haridasan & Team

Introduction

As in the previous years we have endevoured to compile the activities carried out by Green Ahalia in the present annual report. This encompasses diverse activities like thematic garden development, propagation, and research studies, establishing germplasm bank, continuing with cultivation model development, developing a new annex with conservation as main thrust at Chayathara, and so on. There has been steady growth in every sphere of our activity from the previous reports. We added 5 new themes to the existing and one duplicated. These themes are:

1. Poison/Danger zone,

2. Trigandhaka,

3. Aliens - the invasive species,

4. Mangroves, and

5. Arogya Vatika

which are all aimimg at increased acceptability by the visitors. In addition, we have duplicated our theme Bambusetum this year to a closer location. As always, each of them is planned to propagate the idea behind and educate the visitors by providing the awareness.

Our efforts to make Green Ahalia as a reseatch establishement brought results in terms of propagating species that require vegetative propagation but also multiplication of some of the threatened plants. This report discusses some of the works that we did in this direction. Our post graduate interns are working on the local flora and vegetation looking at different components of biodiversity having a bearing on the community. Our growth studies on the garden plants continued and performance analysis is evaluated. In the nursery front our team is engaged in germination trials and seedling production. We also continued our work on quality planting material production under the NMPB supported project that has resulted in sizeable number of seedlings stock.

This report aso narrates the outreach and extension activities that we are engaged in. We have successfully supported different schools in the district for establishing herbal gardens. Given teacher's orientation in the subject. OISCA international Women chapter joined hands with us in promoting school gardens and teacher orientation. Our report also indicates the changes we brought on our website to make it more dynamic.

Of late we could secure a project funding under the Assistance to Botanic Garden Scheme of the Ministry of Environment and Climate Change which will help us improve the

garden facilities.

The plant collections and sapling sourcing is described in this report which can be of help to others as well. A lot of eminent persons visited Green Ahalia which are also documented in this report. Few of our Advisory Board members helped us with planting materials and technical help. Our report also shows the teams effort on plant collection and plant production.

Further we celebrated and conducted events like world Environment Day this year too. We honoured a front-line staff of KFRI Central nursery, who has contributed in promoting biodiversity. All these and much more are presented in the sections that will follow.

Progress and Achievements

Progress and Achievements

Newly added themes

During the year 2023-24 we have established five new themes and duplicated one theme in the garden. They are:

1. Poison/Danger Zone

This theme was established with an overall aim of creating awareness about the plants that can cause allergic reaction of different levels to the people. Some of them are mild, while others can be serious in their reaction to touch, smell, or taste. While few of these plants need not even be consumed to trigger an allergic reaction but just their proximity could be of serious nature. However, the effect may vary from person to person. Usually, the reaction may end in a day's time but for some people it may warrant medical assistance or treatment. Visitor will find here very interesting information on each species. It may be noted that our collection does not represent the complete plant list by any means. These are grown as representative example only.

SL. NO.	BOTANICAL NAME OF THE PLANT	FAMILY	COMMON NAME
1.	*Catharanthus roseus*	Apocynaceae	Nithyakalyani
2.	*Allamanda cathartica*	Apocynaceae	Manjakolambi
3.	*Nerium oleander*	Apocynaceae	Arali
4.	*Calotropis procera*	Apocynaceae	Erukku
5.	*Calotropis gigantea*	Apocynaceae	Erukku
6.	*Laportea interrupta*	Urticaceae	Choriyanam
7.	*Datura metel*	Solanaceae	Ummam
8.	*Datura stramonium*	Solanaceae	Ummam
9.	*Mucuna pruriens*	Fabaceae	Naikkurana
10.	*Gloriosa superba*	Liliaceae	Menthoni

11.	*Abrus precatorius*	Fabaceae	Kunnikkuru
12.	*Plumbago indica*	Plumbaginaceae	Chethikkoduveli
13.	*Cleistanthus collinus*	Euphorbiaceae	Oduku
14.	*Leucaena leucocephala*	Fabaceae	Subabul
15.	*Cerbera odollam*	Apocynaceae	Othalanga
16.	*Cascabela thevetia*	Apocynaceae	Manjarali
17.	*Manihot glaziovii*	Euphorbiaceae	Kattu-rubber
18.	*Adenanthera pavonina*	Fabaceae	Manjadi
19.	*Strychnos nux-vomica*	Loganiaceae	Kanjiram
20.	*Holigarna arnottiana*	Anacardiaceae	Cheru
21.	*Ficus benjamina*	Moraceae	Weeping fig
22.	*Lantana camara*	Verbanaceae	Arippochedi
23.	*Asclepias curassavica*	Apocynaceae	Silkweed
24.	*Ricinus communis*	Euphorbiaceae	Aavanakku
25.	*Tragia involucrata*	Euphorbiaceae	Kodithoova
26.	*Parthenium hysterophorus*	Asteraceae	Congress pacha

Inauguration of Danger zone theme

2. Trigandhaka

This is a theme that depicts a formulation in Indian system of medicine. Notably all the three species in this theme are trees and are threatened in one or the other way. Hence, it also adds to conservation. They are valuable resources too that have commercial value

SL. NO.	BOTANICAL NAME OF THE PLANT	FAMILY	COMMON NAME
1	*Dysoxylum malabaricum*	Meliaceae	Vellakil
2	*Pterocarpus santalinus*	Fabaceae	Raktha-chandanam
3	*Santalum album*	Santalaceae	Chandanam

Inauguration of Trigandhaka

3. Aliens - *the invasive species*

Of late there is increased thrust on Alien species or invasive ones as they are a recognised cause of threat to indigenous biodiversity. A proper understanding on these plants can be beneficial in their management and control. Palakkad district where we are located too has an increasing number of such species found lately as the district is exposed to developmental pressures and make the landscape vulnerable to invasion of alien species. This theme is setup for creating awareness on such species having potential threat value. As in the theme of poisonous plants species these plants here are also shown as an example and not a complete representation. We tried to assemble here the ones that could be grown in our condition and accessible to us.

Inauguration of Aliens theme

SL. NO	BOTANICAL NAME OF THE PLANT	FAMILY	COMMON NAME
1.	*Alternanthera sessilis*	Amaranthaceae	Kuppacheera
2.	*Centrantherum intermedium*	Asteraceae	
3.	*Cleome viscosa*	Cleomaceae	Kattukaduku
4.	*Cosmos sulphureus*	Asteraceae	Maanganari
5.	*Croton hirtus*	Euphorbiaceae	
6.	*Indigofera linnaei*	Fabaceae	Chru-pulladi
7.	*Euphorbia heterophylla*	Euphorbiaceae	
8.	*Ipomoea aquatica*	Convolvulaceae	Kozhuppa
9.	*Mimosa pudica*	Fabaceae	Thottavaadi
10.	*Pennisetum pedicellatum*	Poaceae	Poochavalanpullu
11.	*Pilea microphylla*	Urticaceae	
12.	*Physalis angulata*	Solanaceae	Njootanjodiyan
13.	*Ruellia tuberosa*	Acanthaceae	
14.	*Sphagneticola trilobata*	Asteraceae	Kammalchedi
15.	*Synedrella nodiflora*	Asteraceae	Mudian pacha
16.	*Tridax procumbens*	Asteraceae	Thalavetti
17.	*Chromolaena odorata*	Asteraceae	Communist pacha
18.	*Hyptis suaveolens*	Lamiaceae	Nattappochedi
19.	*Ricinus communis*	Euphorbiaceae	Aavanakku
20.	*Jatropha gossypifolia*	Euphorbiaceae	Chuvannakadalavanakku
21.	*Sida acuta*	Malvaceae	Kurunthotty
22.	*Tithonia diversifolia*	Asteraceae	Velisooryakanthi
23.	*Centrosema molle*	Fabaceae	Kattu payar
24.	*Mikania micrantha*	Asteraceae	Vayara

25.	*Mimosa diplotricha*	Fabaceae	Aanathottavaadi
26.	*Mucuna pruriens*	Fabaceae	Naykkurana
27.	*Passiflora foetida*	Passifloraceae	Poochappazham
28.	*Acacia mangium*	Fabaceae	Manjium
29.	*Cascabela thevetia*	Apocynaceae	Manjarali
30.	*Eucalyptus grandis*	Myrtaceae	Eucaly
31.	*Gliricidia sepium*	Fabaceae	Seemakkonna
32.	*Leucaena leucocephala*	Fabaceae	Ippilpil
33.	*Manihot carthaginensis*	Euphorbiaceae	Kattu rubber
34.	*Muntingia calabura*	Muntingiaceae	Pancharappazham
35.	*Senna spectabilis*	Fabaceae	Thakara
36.	*Senna occidentalis*	Fabaceae	Thakara

4. Kandal Kazcha-*Mangroves*

Mangroves are by far the most endangered landscape in the world despite their immense ecosystem service they offer. Their bilogy is unique to life in saline water proximity and marshy conditions. But for one or two, they are not known to grow in the inlands. The biology students as pat of their curriculum, need to understand their morphological features, adaptations, and regeneration patterns. Thus, we trided to show case few of the mangrove species by providing the desired ecological conditions they require. 8 species have been tried at our campus successfully which will be model for students to learn in future. We wish to increase the number of mangrove species in future as and when available.

SL NO.	BOTANICAL NAME	FAMILY	COMMON NAME
1.	*Rhizhophora mucronata*	Rhizophoraceae	Pranthan kandal
2.	*Bruguiera sexangula*	Rhizophoraceae	Swarnakkandal
3.	*Aegiceras corniculatum*	Rhizophoraceae	Pookandal
4.	*Bruguiera gymnorrhiza*	Rhizophoraceae	Penakkandal
5.	*Bruguiera cylindrica*	Rhizophoraceae	Kuttikkandal

6.	*Avicinnia officinalis*	Rhizophoraceae	Uppatti
7.	*Acanthus ilicifolius*	Acanthaceae	Chullikkandal
8.	*Ceriops tagel*	Rhizophoraceae	Manjakkandal

Inauguration of Kandal Kazhcha theme

5. Arogya Vatika

Indian system of medicine utilises several plants for prevention and treatment of diseseas. Many plants are used as home remedies in the country as primary health care initiative. We realise there are several plants for problems afflicting different parts of human body. To show case such plants with a diagrammatic representation human body on ground for better appreciation by young students and community. Thus, we have planted representative plants in respective parts of the body. 40 such species are being grown here.

Inauguration of Arogyavatika

SL. NO.	BOTANICAL NAME	FAMILY	COMMON NAME
1.	*Hibiscus rosa-sinensis*	Malvaceae	Chembarathi
2.	*Indigofera tinctoria*	Fabaceae	Neelayamari
3.	*Lawsonia inermis*	Lythraceae	Mylanchi
4.	*Centella asiatica*	Apiaceae	Kudangal
5.	*Bacopa monnieri*	Plantaginaceae	Brahmi
6.	*Acorus calamus*	Acoraceae	Vayambu
7.	*Adathoda beddomei*	Acanthaceae	Chittadalodakam
8.	*Coleus amboinicus*	Lamiaceae	Panikoorka

9.	*Oxalis corniculata*	Oxalidaceae	Puliyarila
10.	*Ocimum sanctum*	Lamiaceae	Thulasi
11.	*Piper longum*	Piperaceae	Thippali
12.	*Murraya koeinigii*	Rutaceae	Kariveppu
13.	*Andrographis paniculata*	Acanthaceae	Kiriyath
14.	*Piper nigrum*	Piperaceae	Kurumulaku
15.	*Kalanchoe pinnata*	Crassulaceae	Elamulachi
16.	*Phyllanthus amarus*	Phyllanthaceae	Keezharnelli
17.	*Zingiber officinale*	Zingiberaceae	Inchi
18.	*Cissus quadrangularis*	Vitaceae	Changalamparanda
19.	*Vitex negundo*	Lamiaceae	Karinochi
20.	*Hemigraphis colorata*	Acanthaceae	Murikootti
21.	*Calotropis gigantea*	Apocynaceae	Erukku
22.	*Hygrophila schulli*	Acanthaceae	Vayalchulli
23.	*Scoparia dulcis*	Plantaginaceae	Kalluruki
24.	*Cyperus rotundus*	Cyperaceae	Muthanga
25.	*Andrographis paniculata*	Acanthaceae	Kiriyath
26.	*Desmodium gangeticum*	Fabaceae	Orila
27.	*Terminalia arjuna*	Combretaceae	Neermaruthu
28.	*Phyllanthus amarus*	Phyllanthaceae	Keezharnelli
29.	*Vernonia cinerea*	Asteraceae	Poovamkurunila
30.	*Aerva lanata*	Amaranthaceae	Cheroola
31.	*Amaranthus tricolor*	Amaranthaceae	Cheera
32.	*Boerhavia diffusa*	Nyctaginaceae	Thazhuthama
33.	*Santalum album*	Santalaceae	Chandanam
34.	*Wrigtia tinctoria*	Apocynaceae	Dhanthapala
35.	*Curcuma longa*	Zingiberaceae	Manjal
36.	*Mangifera indica*	Anacardiaceae	Maavu
37.	*Clitoria ternatea*	Fabaceae	Shankupushpam
38.	*Eclipta prostrata*	Asteraceae	Kayyuni
39.	*Aloe vera*	Asphodelaceae	Kattarvazha
40.	*Justicia gendarussa*	Acanthaceae	Vathamkolli

6. Bambusetum Annex.

Since our Bambusetum is placed a little away and area for expansion is limited and with an aim to concentrate in one focal point we established an annex for the bambusetum with several species few of which are new additions to the bamboo diversity of our garden. This is going to be an added attraction to our Ahalia campus in due course.

SL NO	BOTANICAL NAME
1.	*Bambusa balcooa*
2.	*Bambusa bambos*
3.	*Bambusa cacharensis*
4.	*Bambusa glaucescens*
5.	*Bambusa membranaceus*
6.	*Bambusa mizorameana*
7.	*Bambusa multiplex*
8.	*Bambusa nutans*
9.	*Bambusa pallida*
10.	*Bambusa polymorpha*
11.	*Bambusa teres*
12.	*Bambusa tulda*
13.	*Bambusa variegata*
14.	*Bambusa vulgaris*
15.	*Bambusa wamin*
16.	*Dendrocalamus asper*
17.	*Dendrocalamus brandisii*
18.	*Dendrocalamus giganteus*
19.	*Dendrocalamus latiflorus*
20.	*Dendrocalamus longispathus*

SL NO	BOTANICAL NAME
21.	*Dendrocalamus stocksii*
22.	*Dendrocalamus strictus*
23.	*Dinochloa andamanica*
24.	*Gigantochloa andamanica*
25.	*Gigantochloa atroviolacea*
26.	*Gigantochloa atter*
27.	*Gigantochloa macrostachya*
28.	*Gigantochloa nigrociliata*
29.	*Guadua angustifolia*
30.	*Hibanobambusa tranquillans*
31.	*Melocanna baccifera*
32.	*Ochlandra setigera*
33.	*Oxytenanthera abyssinica*
34.	*Phyllostachys aurea*
35.	*Pseudoxytenanthera ritcheyi*
36.	*Schizostachyum beddomei*
37.	*Schizostachyum dullooa*
38.	*Schizostachyum pergracile*
39.	*Shibataea kumasaca*
40.	*Teinostachyum wightii*
41.	*Thyrsostachys oliveri*

7. The Star, Rasi and Navagraha plants

During this reporting period we also duplicated our Star (27 species), Rasi (12 species) and Navagraha (9 species) themes and got them displayed in a capsular model to make them more visitor friendly. Our existing one is spread on a large area in a fashion of Om and Sun rays resulting in a constraint of not been able to see in a sigle frame of vision. In this present display a visitor can see species pertaining to all Star/ Rasi/ Navagraha in one frame of vision and get a full perspecive.

Manthoppu - the Mango Germplasm

Mango is one of the most favoured fruits with innumerable varies that exist in the country. Though, most of the traditional varieties have disappeared from the face of the earth, even now there are traditional and native varieties available in many rural villages. However, many of them are getting vanished due to more preference given to the improved varieties that are raised through breeding and selection for cultivation.

While there is general agreement on preservation of indigenous varieties, we also need to showcase to the community the commercial varieties that can be grown in our agronomic condition. To make it possible we launched a Mango germplasm with over 40 authentic and identified varieties along with native varieties of mangoes obtained through reliable sources at our centre.

Phyto-Voltaic project

Ahalia alternate energy joined hands with green Ahalia for a unique project of cultivation model utilising space under each solar panel which otherwise was lying unutilised at Ahalia solar power park. In this project, the proposal is to cultivate ecosystem specific plant species known for their resource potential. As a thumb rule the plants are shade tolerant, largely annual, requiring less maintenance easy to harvest and so on. 8 species are identified for the purpose and their planting was launched at a befitting programme on 4th August 2023. Every stretch of the ground below the Photovoltaic panels in this solar power project is given one species in each row. Each of these rows have been used to conduct experiment on performance, yield and productivity. This comparative assessment will give scope to project a model for cultivation in solar parks. The biomass production and fruit yield are meticulously recorded, and assessment made to deduce comparative performance of each species and the economic returns. A pioneering effort by Ahalia Alternate Energy and Green Ahalia that is a model for the future research and development and it is already attracting many visitors.

Phytovoltaic project

Smruthi Vatika

For celebrating the visit of eminent persons, mostly heads of departments, to the garden we made a dedicated garden by the name Smrithi Vatika. The signages accompanying the saplings will indicate the name and detaials of the plant and also the person who planted with date of visit and planting. We propose to keep meticulous data of the vital statistics of the plant and record annual growth.

Prof. MNB Nair

Dr Mallikarjuna Swami

Rakesh Jain

Dr. Sharief

Dr. Kunhikannan

Dr. Seethalakshmi

Dr. Syam Viswanathi

Dr. Padmakumar

MoUs

Green Ahalia has been entering into MoUs with reputed organisations to enhance our research and development reach. This networking and linkages will take us to the next level of contribution to conservation and sustainable utilisation. During this reporting period we could enter into MoU with two more organisations, the Mercy college, Palakkad for research internships, Taxonomic support and Herbal garden establishements and with the Institute of Forest Genetics and Tree Breeding (IFGTB), Coimbatore for establishing Germplasm banks of important species largely aiming at conservation.

MoU with IFGTB, Coimbatore

IFGTB which is a Government of India Forest Research Institute under the Indian Council of Forestry Research and Education located at Coimbatore. We had earlier implemented two conservation projects with them at Ahalia campus which was very successful. This time again we joined hands with them for establishing the *Gmelina arborea* genetic trial performance plot. 374 saplings were planted with the design provided by IFGTB. We could observe excellent growth of the sapling in short time.

MoU with Mercy College, Palakkad

Green Ahalia entered into MoU with Mercy College Palakkad covering areas of mutual interest in research and development. It also provides internship opportunities for PG students. As part of the MoU Green Ahalia has provided Medicinal plants for a garden on women's health. Botany students from the college participated in the programme where they were provided with information on Green Ahalia activities and the opportunities available here. The garden named 'Sthree Sakthi' established at the college has over 33 species of medicinal plants provided by Green Ahalia along with signages.

MoU with IFGTB, Coimbatore

MoU with Mercy College, Palakkad

Events

Harithabham 0.2 : The Legacy Continues

Green Ahalia formation was in coincidence with World Environment Day Celebration 2017. Since then, it's a regular feature for the organization, for celebrating the formation day-along with the World Environment Day recalling our existence year after year. This year too, as we enter into the 6th year of operation, we organized Harithabham 0.2 on 16th June 2023 as a sequel to Harithabham organized on 4th May 2023 aiming at enhancing the green cover in the campus. It also links to the World Environment Day Celebration 2023. The highlights include inauguration of 2 new theme gardens, Trigandhaka and Poisonous plants by the Chief guest, visiting dignitaries and involving students. This took the total themes in the garden to 39 expanding our coverage.

Apart from this there were other programmes well attended by students, research scholars, college faculty, farmers, scientists etc. Dr. P E Rajasekharan, Eminent Scientist, IIHR, Bangalore and Dr. K K Seethalakshmi, Former Senior Scientist, KFRI were the chief guest and guest of Honour respectively. OISCA International representatives, Heads and representatives of Ahalia institutes were also participated in the programme. Green Ahalia along with Ahalia events team had organised Essay competition, poster competition etc for students which were well received.

The other events in the programme were release of Green Ahalia Annual report 2022-23, Information bulletin-1 : Garden for health - the first options, and the 3rd edition of Green Ahalia brochure by the guests. Another significant aspect was honouring Mr. K Rajan of KFRI, Central nursery, the winner of the Green Ahalia, Green Warrior Award 2023. Various competitions were conducted, and the winners were awarded prizes during the function. A prominent item in the programme was the street play by the students of Ahalia Public School relating to environmental conservation and community action which was well appreciated by everyone present in the programme.

Harithabham 0.2

July -The Van Mahotsava Month

Come July the entire country reverberates with tree planting programmes across the nation. Obviously, the forest departments would lead it with active support from both government and non-governmental agencies, Community based organisations, institutes and the like. The Ahalia group is already pledged to make the earth a greener space. Green Ahalia tirelessly works towards that goal. Along with a conservation group this year we celebrated the event by planting saplings of native mango varieties.

One more effort in conservation

Green Ahalia collaboration with KFRI on RET plants and conservation. Under the Green Kerala Initiative: Restoring IUCN Red-Listed tree species and Ecosystems of Kerala is taken up by Kerala Forest Research Institute (KFRI). As part of an MoU with KFRI and Green Ahalia, we have collaborated with the project in planting 9 species (*Diospyros crumenata, Dipterocarpus indicus, Dysoxylum malabaricum, Atuna travancorica, Hopea erosa, Hydnocarpus macrocarpa, Knema attenuata, Vateria indica, Hydnocarpus pentandra*) in our Chayathara complex and also in our RET garden. This is a further addition to our conservation intiative. KFRI provided the seedlings of the selected RET species for this project.

International year of Millets celebrated as Chingapulari

Chingam 1 is the first day of the Malayalam calendar also popular as chingapulari. This year it was on the 17th August 2023. It is a special day for Green Ahalia when we celebrated it as a grand programme – Chingapulari. As the year 2023 is celebrated as International year of Millet and Chingam 1 is celebrated as Karshakadinam in Kerala, we have launched Millet farming and organised a lecture on Millets. Sri. Deepalayam Dhanapalan, Farm Manager, Regional Poultry Farm, Malampuzha, was the Chief Guest of the programme and inaugurated millet farming by sowing Kodo millet seeds (Varagu) in the field. Further, he gave a lecture on Millets for Community Health. Sreejith M Nair, Principal, ASPS, was the guest of Honor at the event. Students and staff from Ahalia public School, Ahalia School of Optometry and Ahalia School of Paramedical Sciences and Green Ahalia field staff participated.

NMPB Awsagandha campaign

NMPB RCFC organized the national campaign partnering with Green Ahalia on 26th March 2024. The participants were farmers, Ayurveda students, Staff and other stake holders. The oneday workshop was inaugurated by Dr. Padmakumar, Advisor, NMPB with a Keynote address and Dr. Sujanapal and Dr. P S Udayan experts who delivered lectures. Dr. Sheba Sunil Principal Ahalia Ayurveda Medical College and Hospitals and Dr. Sreejith, Principal Ahalia School of Paramedical Sciences delivered the felicitation. Sri Sabik and Sri Shaibu from Green Ahalia coordinated the event successfully. Dr. Padmakumar also planted a sapling in Smrithi Vatika.


ChingaPulari


ChingaPulari

Aswagandha Campaing

Seed Museum

As a new initiative, Green Ahalia began pooling seeds of the local bioresources as and when available and organised into a Seed Museum. In the long run this facility is going to be very useful to students, researchers, farmers, traders and other stake holders. In this short span of time we are able to accumulate over 200 species which is growing over the days to come.

SL.NO	BOTANICAL NAME
1	Azadirachta indica
2	Calotropis gigantea
3	Saraca asoca
4	Pongamia pinnata
5	Helianthus annus
6	Asparagus racemosus
7	Caesalpinia sappan
8	Clitorea ternatea (Blue flowered)
9	Pseudarthria viscida
10	Acacia mangium
11	Oryza sativa (Njavara)1
12	Crotalaria retusa
13	Zizyphus jujuba
14	Ocimum sp.
15	Lawsonia inermis
16	Tectona grandis
17	Abrus precatorius (red and black)
18	Nyctanthes arbor-tristis
19	Desmodium gangeticum
20	Indegofera tinctoria
21	Solanum torvum
22	Andrographis paniculata
23	Withania somnifera
24	Lagerstroemia inermis
25	Helicteres isora
26	Senna sp.
27	Withania somnifera
28	Chamomilla recutita
29	Cryptolepis buchananii
30	Nelumbo nucifera
31	Aphanamixis polystachya
32	Elaeis guineensis
33	Datura metal

34	Annona sp.
35	Mimosa pudica
36	Adenanthera pavonina
37	Calophyllum inophyllum
38	Sauropus androgynous
39	Abutilon indicum
40	Sida sp.
41	Thespesia populnea
42	Bixa orellana
43	Holoptelia integrifolia
44	Embelia tsjeriam-cottam
45	Terminalia bellirica
46	Terminalia paniculata
47	Xylia xylocarpa
48	Pterocarpus marsupium
49	Areca catechu
50	Leucaena leucocephala
51	Centrosema molle
52	Bauhinia variegata
53	Bauhinia acuminata
54	Mimusops elengi
55	Oroxylum indicum
56	Asparagus racemosus
57	Pyrus malus
58	Abrus precatorius (Black)
59	Terminalia arjuna
60	Bauhinia tomentosa
61	Desmodium gyrans
62	Cerbera thevetia
63	Cucurbita maxima
64	Crotalaria sp.
65	Anona squamosa

66	Cassia auriculata
67	Citrus limon
68	Citrus limetta
69	Citrus sinensis
70	Cascabela thevetia
71	Manilkara zapota
72	Bixa orellana
73	Tamarindus indica
74	Aristalochia indica
75	Aristalochia ringens
76	Ficus religiosa
77	Berrya cordifolia
78	Psidium guajava
79	Santalum album
80	Gomphrena globosa
81	Alternanthera brasiliana
82	Swietenia macrophylla
83	Pongamia pinnata
84	Spondias pinnata
85	Terminalia catapa
86	Terminalia chebula
87	Wodyetia bifurcata
88	Santalum album
89	Garcinia gummigutta
90	Wrightia tinctoria
91	Bridelia retusa
92	Dalbergia latifolia
93	Cassia fistula
94	Ficus religiosa
95	Butea monosperma
96	Macaranga peltata
97	Tectona grandis

98	Ficus racemosa
99	Bauhinia variegata
100	Albizia saman
101	Simarauba glauca
102	Terminalia bellirica
103	Pterocarpus marsupium
104	Corypha umbraculifera
105	Mimusops elengi
106	Enterolobium cyclocarpum
107	Caryota urens
108	Leucaena leucocephala
109	Caesalpinia coriaria
110	Terminalia arjuna
111	Tamarindus indica
112	Delonix regia
113	Strychnos nux-vomica
114	Neolamarckia cadamba
115	Terminalia catapa
116	Salix tetrasperma
117	Cardiospermum sp.
118	Spathodea companulata
119	Agathis robusta
120	Quassia indica
121	Adenanthera pavonina
122	Abrus precatorius (white)
123	Hopea ponga
124	Caesalpinia pulcherima
125	Sesbania grandiflora
126	Zinnia elegans
127	Sphaeranthus indicus
128	Xanthium strumarium
129	Citrulus lanatus

130	Anacardium occidentale
131	Spathodea companulata
132	Crotalaria verucosa
133	Scaevola taccada
134	Artocarpus heterophyllus
135	Rhizophora mucronata
136	Caesalpinia coriaria
137	Chromolaena odorata
138	Tridax procumbens
139	Vernonia cinerea
140	Ficus macrocarpa

SL.NO	BOTANICAL NAME
1.	Nyctanthus arbor-tristis
2.	Cleistanthus collinus
3.	Datura stramonium
4.	Polyalthia longifolia
5.	Annona squamosa
6.	Cryprostegia grandiflora
7.	Cassia senna
8.	Anacardium occidentale
9.	Pithecellobium dulce
10	Garcinia intermedia
11	Acacia catechu
12	Morinda citrifolia
13	Annona muricata
14	Cajanus cajan
15	Paspalum scrobiculatum
16	Eleusine coracana
17	Setaria italica
18	Panicum sumatrense
19	Panicum miliaceum
20	Pterocarpus marsupium

21	Datura stramonium
22	Abrus precatorius(white)
23	Pterocarpus santalinus
24	Annona squamosa
25	Cryptostegia sps.
26	Prunus sps.
27	Caesalpinia pulcherrima
28	Neolamarckia cadamba
29	Cassia senna
30	Pritchardia sps.
31	Canavalia lineata
32	Embelia tsjeriam-cottam
33	Globba
34	Mimosops elenji
35	Clerodendrum serratum
36	Datura metal
37	Messua ferrea
38	Hildegardia populifolia
39	Cycas beddomei
40	Maerua
41	Cycas seshachalamensis
42	Shorea tumbuggaia
43	Victoria amazonica
44	Mesua ferrea
45	Indigofera tinctoria
46	Oroxylum indicum
47	Gomphrena globosa(red)
48	Rauvolfia tetraphylla
49	Sterculia foetida
50	Begonia sps.

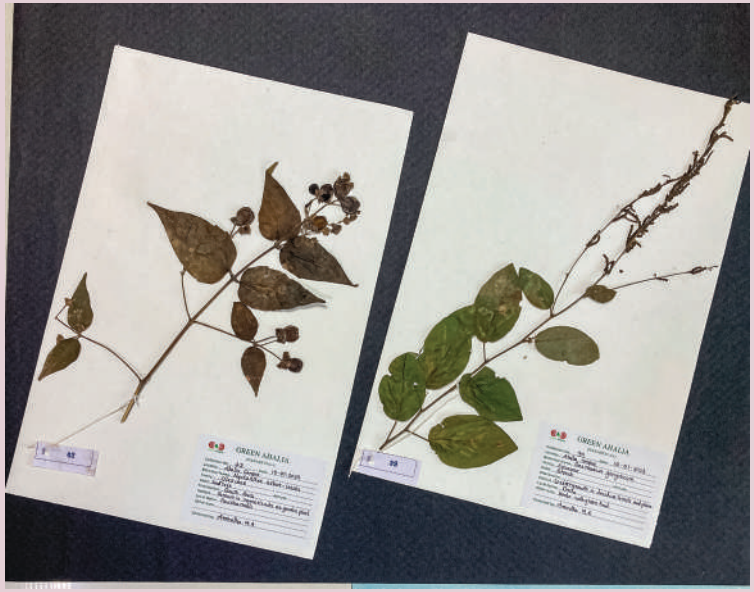
51	Cassia sps.
52	Centrosema molle
53	Jatropha multifida
54	Livistona jenkinsiana
55	Jatropha sps.
56	Pongamia pinnata
57	Libidibia coriaria
58	Acacia manjium
59	Abutilion indicum
60	Moringa olifera
61	Pterocarpus santalinus
62	Chromoleana odorata
63	Sesbania grandiflora(pink)
64	Leonotis nepetifolia
65	Piper sps.
66	Ixora sps.
67	Lagerstroemia sps.
68	Melocactus
69	Catunaregam speciosum
70	Uvaria narum
71	Cleome viscosa
72	Terminalia chebula
73	Cleistanthus collinus
74	Swietenia mahagoni
75	Abelmoschus ficulneus
76	Ipomoea sps.
77	Cordia sps.
78	Butea monosperma
79	Anacardium occidentale
80	Terminalia chebula

81	Canarium strictum
82	Holarrhena pubescens
83	Manihot glaziovii

84	Caesaria wyanadensis
85	Alangium salviifolium
86	Scaevola seicea

Herbarium

As part of our programme to understand and bring out a campus flora, we have just began the process of developing a herbarium at Green Ahalia. Necessary stores and tools were procured. Thus, basic requirements are in place with us now and we have earnestly started the work. The projects by interns are also aiming to cumulatively add to the outcome of flora of Ahalia campus.



Outreach

Website & social media platforms

Improving our websites and other social media efforts.

We have been consciously endeavouring to make our website more engaging and dynamic. For this we added new features in our our constantly improving news and events section that is almost weekly updated. Another feature added is "This week and your plants" section that provided that particular weekday's associated star and linked plants. We wish to further improve with newer titles and components.

According to Vedic traditions, each of the 27 Nakshatras, or lunar mansions, is symbolically represented by a unique plant or tree. These Nakshatra plants, revered for their spiritual and medicinal properties, are believed to wield an influence on individuals born under their respective Nakshatra and also adding Rasi plants in accordance with the zodiac sign as it changes from one to the other. Our website id is www.greenahalia.com/greenahalia.

Exhibitions

As in previous years Green Ahalia has been taking part in major exhibitions in the district as a means to connect to the community putting up stalls showcasing our activities. Resources, achievements, and outreach possibilities. Suiting to the situations they are organised thematically to convey the best to the targeted audiences. Few of the events where we took part are mentioned below.

Pragathi 2K23 Sahodaya School -Kalolsav

Green Ahalia had put up a stall in this event organised by Palakkad District Sahodaya held at Ahalia Public School from 5th to 7th of October 2023 where all the 75 CBSE affiliated schools in the district took part in this mega event. The stall highlighted the activities of Green Ahalia and its story of evolution. Its focus was to provide an awareness to the public in general and students in particular about our herbal health care practices and sustainable bio- resource utilization. The package of plants for the School Herbal Garden was on display along with seedlings from Green Ahalia nursery. The visitors included students, teachers and parents who evinced keen interest.

At 'Pookalam' Malampuzha Flower Show 2024

The District Tourism Promotion Council organised a mega tourism programme by the name Pookalam. As part of our outreach efforts we had put up an exhibition stall at the flower show venue (during 23 to 28th January 2024) at Malampuzha gardens which is a famous tourist destination in the state. The stall depicted medicinal plants for herbal health care and cosmeceutical sector. It attracted a large number of visitors and provided a forum for interaction with interested stake holders. At the venue the school herbal garden package promoted by Green Ahalia was also showcased along with potential farming species for economic upliftment of farmers in the district.

Women's day celebration at AAMCH

Green Ahalia participated in Ahalia Ayurveda Medical College Hospitals exhibition on 6/03/2024 in connection with Women's Day. The stall gave an exposition and awareness about the economic and threatened plants that's been cultivated in Ahalia campus like *Santalum album, Oroxylum indicum, Saraca asoca, Pterospermum santalinus* and *Holostemma ada-kodien*. The stall also exhibited some indoor plants like cacti, succulents, zz plant and snake plant. The stall attracted huge crowd.

Student's Visit

Of late there is spurt in students visit to green Ahalia thematic garden. These schools include CBSE Schools, State syllabus schools and students from colleges. Over 1500 students and their teachers came to the campus for their study tour. The focus was on exposure to ecosystem components, diversity, sustainable use, and propagation technology. Our themes like PHC, Arogya Vatika, shade houses and mist chamber and nursery have components to cover their syllabus. Our recognition as an edu-destination is getting more pronounced. Some schools had more than one trip organised covering more classes. Few of the schools visited include, KV Kanjikode, Bharathiya vidya Mandir, GLPs Pokanthode, Ahalia Public school, RVS College, Sulur, and others.

APS, Kozhipara

GLPS, Pokanthode

KV, Kanjikode

Kendiya Vidyalaya, Kanjikode

School Herbal Gardens

Green Ahalia has been endeavouring to promote, all through its existence, gardening activity in institutes, community lands and homesteads. This includes taking classes and providing techichal information on garden establishment in schools and provide planting materials as and when requested. This reporting year we went ahead more proactively and organised an orientation workshop to school teachers on herbal garden establishement and maintenance. This was in collaboration with OISCA International Women Chapter Palakkad. As a follow up we prioritised over 10 schools based on certain criteria and invited them further to be in collaboration with us for which we had positive response from them. We then organised follow up meetings and fasibility surveys at each selected school. To these schools we provided 20 or more Seedlings to each school along with signages for each species. Our team members personally visited the sites and helped them establish their own herbal gardens. Few of these are as below.

GLPS Pokkanthode, Ahalia Public School Kozhipara, Chinmaya Vidyalaya Pallavur, Ashrama School Malampuzha, and others.

Herbal Garden at Ahalia Public School

Herbal Garden at GLPS Pokkamthode

Bapuji EMS Parali

Lions School Palakkad

MES HS Mundur

Shalom Public School Chittur

KV Kanjikode

MEMHS, Pezhumkara

Participation

BGCI India Conference

BGCI (Botanic Garden Congress International) organised a three-day long Conference at Auroville Botanical Garden, Pondicherry for Indian Members during 10 to 12 October 2023. Mr. Shaibu and Mr. Sabik represented Green Ahalia on this event where they put up a poster on Green Ahalia story. Dr. Jayanti S Ravi IAS, Secretary, Auroville inaugurated the Conference. Paul Blanchflower, Director, Auroville Botanical Garden, Joachim Gratzfeld, Director of Regional Programmes, 35 members representing 25 institutions from all over India took part in the conference. The conference discussed various topics regarding Biodiversity conservation, Threatened plants, Climate change, Networking etc. The team also met Prof. Parthasarathi, Head, Ecology and ES Division, Pondicherry University (who is also one of our Advisory Board members) and with the help of his students the team could collect few endemic and threatened plants from Sacred grove near Pondicherry. The participation in the conference was very useful in networking and linkage with prominent botanic gardens in the country and offered a platform for interaction with eminent personalities.

BGIR Visit

We had visited the International venue of 7th Expert Group Meeting of Assistance to botanic garden, MoEF & CC, coordinated by Botanical Survey of India at Botanic Garden of Indian Republic (BGIR), Noida. Green Ahalia participated at the event along with representatives of 38 botanic gardens in India, in a programme held on 19th December. Apart from making our presentation, we could meet several experts like Dr. Dan Mathew, JNTBGRI, Trivandrum, Prof Madhusoodan Reddy from, Kadappa, Prof. P. P. Baruah from Guwahati, Dr. Nagaraj from IFGTB and 7 other scientists representing 7 different botanic gardens from Kerala. We could interact with each other which indeed was a learning experience.

The meeting also provided us opportunity to visit the Botanic Garden of Indian Republic, Noida and Yamuna Biodiversity Park, Jagatpur Khadar, Wazirabad, Delhi. Each year's progress of the garden depicted here is a story of transformation of a nearly barren landscape to a biodiversity rich site. We could get few seeds and seedlings from here for our garden. On our way back we also visited NBPGR, IARI, New Delhi with the Help of Dr. S. P. Ahalwat, Scientist at NBPGR. We are lucky to visit the Genebank, Cryopreservation, Tissue-culture conservation, Nanaji Deshmukh Plant Phenomic centre and field Genebanks. We also got seeds of *Lathyrus sativus* and seedling of *Citrus japonica* from here.

Plant Growers meet, Thrissur.

During 5 to 7 March 2024 'Medicinal Plants Growers Meet 2024' organized by NMPB, RCFC Southern Region, was held KFRI. This programme is conducted to ensure an efficient communication between plant growers, farmers and buyers. The gathering was inaugurated by Dr. K N Krishna Kumar IFS(Rtd). Former HoFF, Tamil Nadu. Large number participants from South India participated in the programme where Dr. P Sujanapal, Dr. K C Chacko from KFRI and Experts in the field like Dr. Sridharan Sri.Reji Joseph and Sri Dharma Rao handled different sessions. Mr. Sabik S from Green Ahalia received a memento as an appreciation at this event for the successful completion of QPM 3 project at Ahalia. There was a conducted field visit to KFRI Subcentre Nilambur to have an exposure to Herbal garden and Teak museum there.

Pooling plants

To Wayanad in pursuit of rare plants and bamboo species

Green Ahalia is maintaining a threatened plant (RET) Garden offering shelter and refuge to them. We are also having the largest Bambusetum in terms of species diversity in Palakkad district. As part of our expansion programme we are engaging ourselves to collect more and more species possible to cultivate in Ahalia ecosystem. With this aim in mind Sri Sabik and Midhun had a quick visit to Wayanad where they spent time at MSSRF, Uravu etc which are known for their wide collection of RET species and Bamboo respectively. This trip helped us to gather over 20 species of dicot species and 21 bamboo species. On our way back we had a visit to KFRI Nilambur sub Centre and explored availability of species for our garden. Here we could get, with the help of Dr. U M Chandrasekhara and Dr. Mallikarjuna Swamy, a very curious and interesting species the Victoria amazonica (the amazon Giant Water Lily) which has the largest leaves for aquatic plants which can hold floating a baby itself. This if survives is going to be first in the district and a major attraction. A special pond is being constructed for the species at Ahalia campus.

In Pursuit of Giant Water Lilly to Kadappa

At the suggestion of Dr. Hameed from Botanical Survey of India, we reached Yogi Vemana University, Kadappa on 24th November 2023. The team consisted of Green Ahalia members Sri. Sabik and Sri Shaibu along with consultant Dr. K. Haridasan. There, we called on Prof. Madhusoodana Reddy and had a preparatory meeting with a briefing about our works and introduction to the lead botanic Garden of the university headed by Prof. Reddy. The garden established during 2015 and got recognised as MoEF, Lead Garden status 2018 offered us an amazing exposure to the RET and endemic plants like *Cycas beddomei, Syzygium alternifolium, Pterocarpus santalinus* etc. The main attraction however is the giant water lilly *Victoria amazonica* and few very attractive water lillies amid the semi-arid landscape. They have a focus on conservation plots of Cycas, Pterocarpus and Miyawaki plantation. On completing the field visit Prof. Madhusudan Reddy took us to the Vice Chancellor and had a brief interaction with him. We presented an introduction to Green Ahalia and our publications. We also visited their Herbarium and seed Museum on the next day and got seeds of few species for our seed

museum. We could bring in over 80 plants of around 30 species for introduction to Green Ahalia gardens. The visit was a great learning experience, and we are now rich with several interesting conservation important species.

Local collections

As in previous years we had conducted several field trips to wild locations and nurseries. These locations include Waynad, Kozhikode, Thrissur, Nelliyamapthy, Dhoni, Coimbatore and nurseries at Pattikad, Vadanapalli, Irijalakuda, etc. through these trips we were able to gather several new species that we haven't got in our collection earlier and additional seedling for vacancy filling etc. Few of the species we collected are of RET category or are neo endemics. Quite a few add to our bio resource collection in terms of economics. Private nurseries are largely contacted for Orchids, foliage and horticulture species. Our local collections are significant in terms of extremely rare species like *Zingiber sabuanum, Holostemma adakodien, Casearia seethalaksmii*, We were also fortunate to get plants donated by Dr. Manju C Nair, Prof. Maya C Nair, Dr. Seethalakshmi, Dr. Barua and Prof. Padmaraj Gajurel. Dr. Maya has helped us by taking part in a field trip and locating *Zingiber sabuanum* and other interesting plants.

YBP

At Kadappa

BGIR

NBPGR

Plant Phenomics

Forestry college

KFRI Sub centre

Alappat, Irijalakuda

Dhoni

Hawai Orchidsn,Manalur

KAU Mannuthi

Kizhissery

Mohana Orchids, Vadanapalli

Nelliyampathi

Pallavur

Rayirath gardens, pattikad

Prominent Visitors

Green Ahalia had the singular luck to receive at our centre several prominent visitors of national repute at different times during the reporting period either singly or as a team. To mention a few are as below. Each of them, were given a brief about Green Ahalia and its activities, function and achievements. They were also taken around important facilities, thematic gardens, cultivation models and specific plants based on their interest.

Sri Rakesh Jain National Joint Coordinator of Paryavaran Samrakshan Gathi Vidi along with a team visited Ahalia campus. We gave him a presentation of green Ahalia activities in particular and Ahalia group in general.

Dr. N. Sasidharan, Deputy Project Regional Director was leading the team and Dr. M A Suraj, Senior Consultant, NMPB RCFC (Southern Region) and team.

BSI Scientists from the Southern Regional circle of Botanical Survey of India visited Ahalia campus. Dr. M U Sharief, Senior Scientist who is the head of the organisation was the team leader. The other members are Dr. Sujana and Dr. Ravichandran.

Prof. Balakrishnan Nair from Trans Disciplinary University of Health Sciences and Technology (TDU),, Bengaluru visited Ahalia campus on 31st October 2023. He is an exponent of ethno-veterinary practices and has helped in successfully reducing Anti biotic residue in milk and farm produce through EVP.

Dr. Mallikarjuna Swaami


Prof. MNB Nair


Rakesh Jain

Prof Sabu, who is the authority on Ginger group of plants covering Zingiberales and the flora and vegetation of Western ghats visited our campus. A man of great repute and a famous scientist, he is also in our Advisory board.

A Team from Key stone foundation, Nilgris visited Green Ahalia on 5th February 2024. The team consists of 5 members Dr. Anita Varghese ,Dr. Shiny Rehel ,Dr. Aparna Watve ,Ms Harshavardhini and Mr. Vishnu.

Dr. PE Rajasekharan, a former principal scientist at IIHR Bangalore and a member of our advisory board, paid a visit to Green Ahalia.

Dr. Shyam Viswanath and team from IFGTB, Dr. Mayavel and team from IFGTB,

There are Others who had also visited Ahalia like Dr. Kunhikannan, Dr. Rekha Warrier, Dr.Mallikarjuna Swami, Dr. Sujanapal, Dr. Mayavel, Dr. Parwathi Warrier, Dr. K. K. Seethalakshmi, Dr. Sibin and Shri Sreekumar, Dr. K. K. Sasi, Shri. Dhanapalan, Dr. Syam Viswanath, and Scientists from other institutes and colleges..

Key stone team

Prof. M. Sabu

Dr. M U Sharief & BSI Team

Dr. Syam Viswanath

Dr. Maya Vel & team

Dr. Kunhikannan & team

Sri. Dhanapalan

Dr. Rajasekharan

Shivshankar and team Wildlife

Dr. Sibin & Srikumar

Dr. Sujanapal & Dr. Chandrasekhara

Dr. Seethalakshmi & Dr. Suraj

Prof. Parwathi Warrier & Team

Dr. K. K. Sasi

Outreach visits

Similarly, we had also gone out and met eminent personalities and Schools where we took our message of Green Ahalia and made presentation. These include KV Ottapalam, K V Kanjikode, Mercy College, College of Forestry KAU, KFRI, Government Arts and Science college Kozhinjampara and so on. We had focussed visits to Malabar Botanic Garden and Institute of Plant Sciences, Guruvayoorappan college. And many more

Arts & Science college Kozhinjampara

GLPS Pokanthode

K V Kanjikode

K V Ottapalam

K V Ottapalam

Chinmaya Vidyalaya Pallavur

Infrastructure

Adding infrastructure for visitor's comfort

As part of upgrading the infrastructure facilities in our garden programme Green Ahalia is adding infrastructure for the sake of visitors. These include garden benches, camp tables and shade-net roofs, climber arches Which are being added for the comfort and protection from hot sun for the visitors. The foot paths are also maintained for ease of access. Nursery stock is also enhanced and made more accessible. A shaded camp house with dining facility for the visitors at our garden. This hall can also be used for welcoming guests and give brief introductory lectures.

Garden gate

Green Ahalia had added an Arch Gate at the entrance to main centre that we call star forest area. This leads to a network of foot paths connecting to all themes located here.

Additional footpaths and hedges

As we establish new themes in the campus we lay down new foot paths too. This obviously is a requirement to enhance the accessibility. Along with the foot paths we started planting hedges. These hedges in the long run will act as theme boundary and also offer scope for topiary arts in the garden. Further, this also help in restricting run off of water helping percolation and keeping the moisture balance.

Climber arches

Over the foot paths. During hot sunny days, the visitors find it difficult to walk along the foot paths without a shade. Realising the need we started constructing arches over foot path on which climbers will be grown that will provide shade. Seedlings of suitable climber's have already been planted along with the arches which have all started growing well.

Water purifier

As the garden is largely irrigated through tube wells, there is a possibility of sediments of Calcium etc that are more than from water of open well/ lake water. This results in sedimentation on the leaves of Orchids and foliage plants leaving a thin cover of a film of such minerals on plants that are provided through overhead misting or fogging. This dusty cover reduces the photosynthetic efficiency of the leaves and spoils the good appearance of leaves resulting in sick

looking plants. To over come this, we decided to install water treatment and purifiying plants for the irrigation network of specified group of plants mentioned earlier. After this intervention there is a spectacular improvement on the appearance and health of the plants.

Enhancing green shade house visibility

Green Ahalia has brought out a useful modification in our green net houses of Fern and foliage house, Orchid house and Cactus and succulent house etc. These houses are kept under lock and key, usually when there are no attendants on site especially after office hours and holidays. During such times visitors are deprived of sights of unique plants inside. When we visited the reputed Malabar Botanic Garden and Institute of Plants Sciences, Kozhikode, we saw the installed glass walls on such green-houses which help to have a good glimpse of the plants stored inside the houses even without entering them. Getting inspiration from Prof. Sabu there, we also fixed glass sheets on two sides of the house for better visibility. They are fixed only as a belt, thus not having adverse impact relating to shade loving plants. There is a visible positive change not only for the plants but also for the visitors who can see the plants even without opening the doors.


YATPPA


Bed 3

Publications:

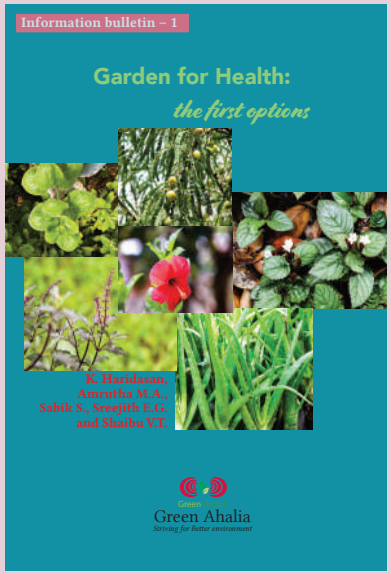
As in previous years we could publish:

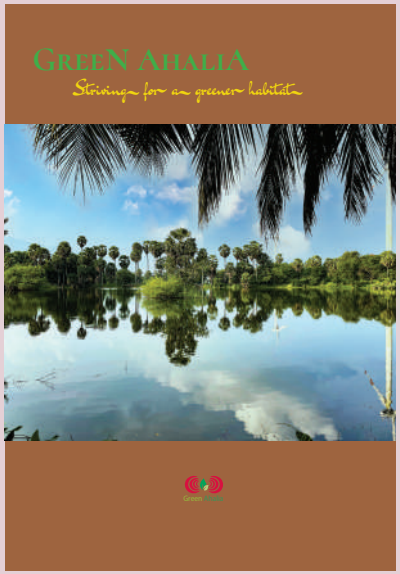
Annual report 2022 - 2023

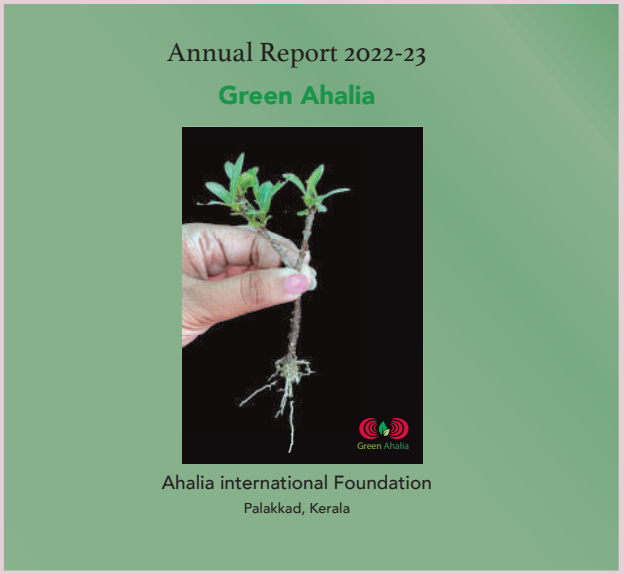
Green Ahalia information bulletin 1- Primary Health care the first options.

Third edition of the Green Ahalia brochure.

Poster on Green Ahalia for the BGCI meet and other Exhibitions.







R. & D.

Ex-situ conservation of threatened plants.

Green Ahalia has received a project support under Assistance to botanic gardens from MoEF & CC Government of India. We consider it a privilege for us in joining the nation in the conservation effort of the country. Though, we have a target of 9 species, we are planning to address 19 species more taking the total to 28 species. We have so far received strong support from the Botanical Survey (Southern circle), and regional research institutes, gardens and professionals that prompted us to apply for this support. With all that support and guidance to continue, we are certain that we will be able to contribute to the conservation arena of the state, especially to the Palakkad region. Mr. Sabik is the PI for the project who will lead the work along with other team members of Green Ahalia.

Internal research

This year too we continued our research on campus biodiversity through the internship projects. Three aspects viz spiritual, invasive and wild ornamental components of the flora are being covered. The results are interesting and helpful to compile the flora of the campus. Periodic reviews are held, and assessments made to keep track of the progress. On 16th January 2024, three of the M.Sc Botany students from Mercy College, Palakkad Ms. Navami, Ms. Shahma and Ms. Thara doing their PG Internship at Green Ahalia participated in the mid -term progress review meeting at Ahalia. Apart from these evaluations there is regular monitoring the progress too.

Macro propagation

There is a huge demand for saplings to create hedges and garden features. Most of these like *Hibiscus, Justicia, Adhatoda, Ixora* are difficult to raise from seeds and thus we resort to vegetative propagation using branch cuttings. Our Mist chamber is an ideal facility for mass multiplication. Several cycles of plantlet production could be made and used for nursery. The same facility is being used to propagate few of our very rare species in the garden. Our experimentation has yielded good results. As, some of the species that are extremely rare in our garden with one to three numbers only available, we could do limited propagatin study. With this facility, we could produce nursery seedlings of *Utleria salicifolia, Madhuca insignis, Gymnema sylvestre, Decalepis hamiltonii, Rauvolfia serpentina,* etc. However, large numbers of *Tamarix dioioca, Woodfordia fruticosa, Adhatoda beddomei, Ficus benjamina*, etc could also be produced. As is expected the hormone application for the cuttings differ based on the species and response.

Another Partnership with IFGTB

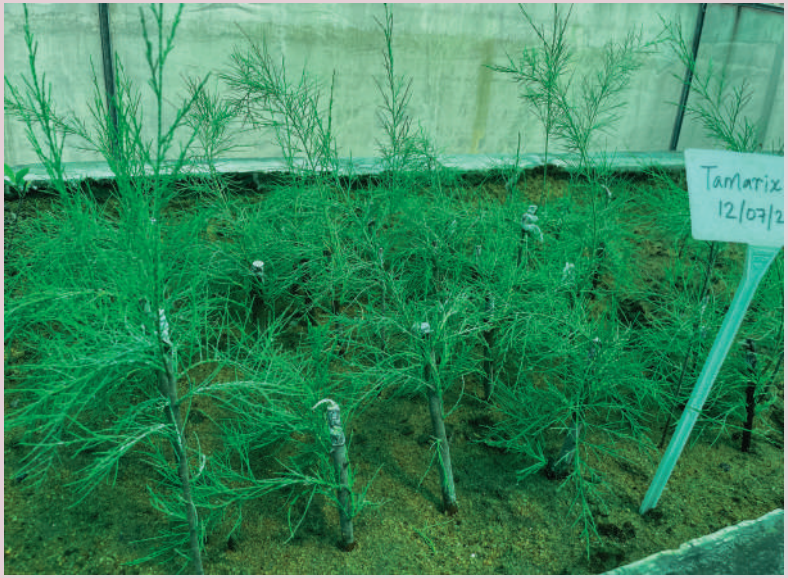
We held a high-level meeting on March 13, 2024, with Dr. Thankamani and Dr. Maya Vel, Scientists at IFGTB to discuss potential cooperation in creating a germplasm bank of significant timber species. This is an extension of our previous work on the germplasm of RET species and Dasamoolam, as well as our most recent work on *Gmelina arborea*. The group had personally inspected every plot that had been created with their assistance. Observing the plants' excellent performance at the campus. The group desired to work further to establish germplasm banks for *Madhuca longifolia* and *Dalbergia latifolia* too with their help. Preliminary work in this direction has started.

Productivity studies

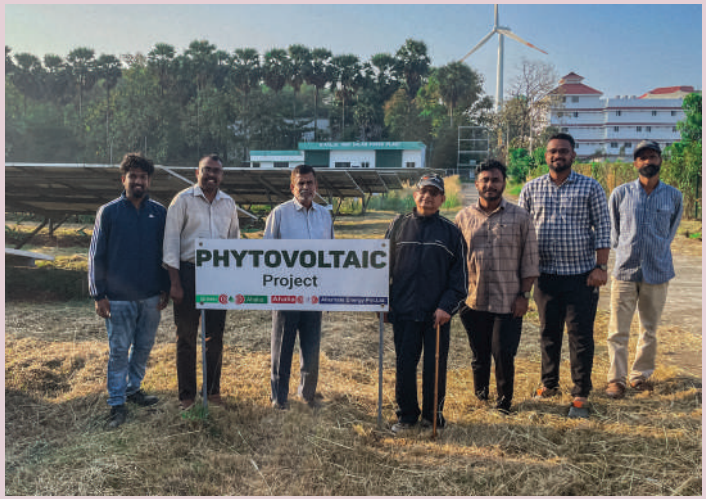
We continued our productivity studies through intercropping in our Sandal based agroforestry model plot. Data pertaining to production of raw material of medicinal plants viz. *Withania, Andrographis, Coleus*, Aloe are being collected and analysed. Similarly productivity studies, as explained earlier, is indicating a promising result from the Phytovoltaic project.

Review and monitoring

Monthly reviews and monitoring about the progress and implementation of planned activities is a regular feature at Green Ahalia. Field inspections by team provides opportunity to address onsite problems as and when required. Our Chairman evaluates the progress through presentation and


Tamarix
12/07/2


SANTALUM ALBUM (INDIAN SANDALWOOD)
BASED AGROFORESTRY MODELS


PHYTOVOLTAIC
Project


ALIENS
(Invasive and Obnoxious)
Green Ahalia

Evaluation of *Gmelina arborea* for yield and quality

		R1				R2				R3				R4				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
2	B	15	15	15	15	19	19	19	19	18	18	18	18	1	1	1	1	
3	B	5	5	5	5	6	6	6	6	14	14	14	14	2	2	2	2	
4	B	12	12	12	12	3	3	3	3	11	11	11	11	19	19	19	19	
5	B	7	7	7	7	4	4	4	4	16	16	16	16	18	18	18	18	
6	B	14	14	14	14	11	11	11	11	10	10	10	10	15	15	15	15	
7	B	13	13	13	13	20	20	20	20	8	8	8	8	4	4	4	4	
8	B	17	17	17	17	5	5	5	5	9	9	9	9	14	14	14	14	
9	B	3	3	3	3	13	13	13	13	20	20	20	20	12	12	12	12	
10	B	16	16	16	16	7	7	7	7	5	5	5	5	6	6	6	6	
11	B	2	2	2	2	14	14	14	14	1	1	1	1	13	13	13	13	
12	B	18	18	18	18	12	12	12	12	19	19	19	19	16	16	16	16	
13	B	4	4	4	4	2	2	2	2	17	17	17	17	9	9	9	9	
14	B	1	1	1	1	8	8	8	8	13	13	13	13	10	10	10	10	
15	B	6	6	6	6	17	17	17	17	7	7	7	7	11	11	11	11	
16	B	8	8	8	8	10	10	10	10	3	3	3	3	17	17	17	17	
17	B	20	20	20	20	15	15	15	15	2	2	2	2	3	3	3	3	
18	B	9	9	9	9	16	16	16	16	6	6	6	6	5	5	5	5	
19	B	11	11	11	11	1	1	1	1	4	4	4	4	20	20	20	20	
20	B	10	10	10	10	18	18	18	18	15	15	15	15	8	8	8	8	
21	B	19	19	19	19	9	9	9	9	12	12	12	12	7	7	7	7	
22	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	

Location : Ahalia Foundation.

No.of.replication : 4

Spacing : 3m X 3m

No. of. Accessions: 20

No. of. Trees/replication: 4

QPM project continuing

This year too qpm project sanctioned by RCFC NMPB continued and we could make more seedlings under the project. The species covered are *Terminalai arjuna, Santalum album, Ororoxylum indicum*,

The New

The list below provides new additions to our theme gardens and germplasm during the reporting period.

Mango varieties:-

Priyur
Alambur
Tholikayippan
Amrutham
Pussen
Chandanam
Kolambu
Kottuparamban
Mundappa
Alphonsa
Chandrakaran
Mallika
Sindhooram
Selection
Bruoi King
Vasik pasandh
Mango var. Jambo Red
All Season Mango

Cattimon Mango
Sindhooram
Baramas
Banana Mango Pink
Black Mango
Suvarnarekha
Kosseri
Nam-dok-mai

Anthurium sps
Anthurium sps
Ardisia (Kilinjaval)
Agave – 3 varieties
Sarcostemma -2 varieties

Pandanus sps.
Hardwickia binnata
Conocarpus lancifolius

Caralluma Mazdia sps.

Andaman mangrove crenulata
Sansveria roxburgii

Atlandia sps.
Memecylon umbellatum
Hildegardia populinifolia
Tricalysia sphaerocarpa
Pterospermum xylocarpum
Suregada augustifolia
Barleria longiflora
Clerodendrum inerme
Hardwickia binnata
Drypetes Porteri
Dodonea angustifolia

Ficus sps.
Jade vine(Blue)
Jade vine(Red)

Mokara sps.

Vanda

Dendrobium sps

Phalenopsis sps.
Dendrobium .Medium
Dendrobium. Rosebilly
Dendrobium. Meesangi
Dendrobium .CHIAD
Oldenlandia dineshii
Drosera indica
Sopubia delfinifolia

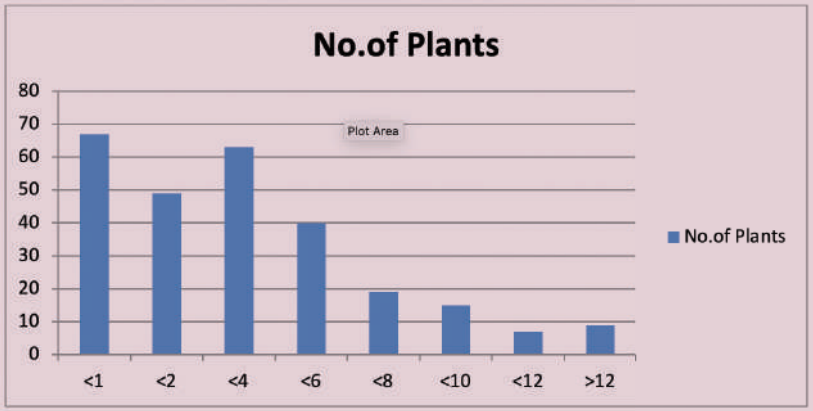
Polycarpea sps.
Heliotropium rottleri
Striga angustifolia

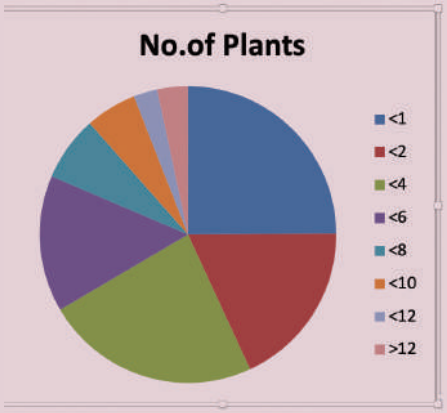
Eriocaulon sps.
Hopea fastogiata
Naregamia alata

Sesamum prostratum	Boswellia ovalifolia		Mallotus sps.
Caralluma lasiantha		Utricularia sps.	Caryota mitis
Caralluma umbellata	Madhuca sps.	Ottelia alismoides	Croton malabaricus
Dodonea viscosa	Salvadora persica	Rhizophora mucronata	Macaranga peltata
Loranthus falcata	Phoenix pusila	Bruguiera gymnorrhiza	
Cochlospermum religiosum	Phoenix loureiroi	Bruguiera cylindrica	Begonia sps.
Pterocarpus santalinus	Syzygium alternifolim	Avicennia officinalis	
Cycas beddomei	Agasthyathulasi	Ceriops tagel	Alocasia sps.
Cycas spherica	Euryale ferox	Kandelia candel	Pseudostacium polymorphum
Cycas seshachalamensis		Aegiceras corniculatum	Ipomoea pes-caprae
Opuntia dillenii	Saracennia sps.	Acanthus iliciflius	
Caralluma hispida		Bruguiera sexangula	Strychnos sps.
Chloroxylon swietenia	Mokara sps.		Ipomoea fistulosa
Pterosperum xylocarpum		Lemna sps.	
Boswellia serrata	Mokara sps		Combretum sps.

General growth profile of PLANTS in the garden

PLANTS HEIGHT	NO. OF PLANTS
<1	67
<2	49
<4	63
<6	40
<8	19
<10	15
<12	7
>12	9





Growth Data from Our Thematic Garden

SL. No	BOTANICAL NAME	FAMILY	2020		2021		2022		2023	
			Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)
1	Strychnos nuxvomica	Loganiaceae			30		30		53	
2	Phyllanthus emblica	Phyllanthaceae	370	18	500	26	1150	30	1500	60
3	Ficus racemosa	Moraceae	430	21	700	27	1100	40	1190	61
4	Syzygium cumini	Myrtaceae	450	42	600	44	810	46	900	86
5	Acacia catechu	Fabaceae	200	24	210	26	460	28	510	37
6	Diospyros ebenum	Ebenaceae	15				22		30	
7	Bambus bambos	Poaceae	600	15	800	16	1500	19	2000	
8	Ficus religiosa	Moraceae	530	20	530	23	810	26	960	56
9	Mesua ferrea	Clusiaceae	60	2	72		55	3	67	
10	Ficus benghalensis	Moraceae	420	45	510	46	790	49	910	82
11	Butea monosperma	Fabaceae	150	12	160	15	190	19	214	30
12	Ficus microcarpa	Moraceae	420	22	450	25	785	30	894	65
13	Spondias pinnata	Anacardiaceae	270	23	270	23	310	25	300	38
14	Terminalia arjuna	Combretaceae	430	33	480	39	735	42	950	46
15	Flacourtia jangomas	Flacourtiaceae	120	7	190	8	490	9.5	525	34
16	Aporosa cardiosperma	Phyllanthaceae	80	3	105		280	5	249	15
17	Vateria indica	Dipterocarpaceae	30				25		30	
18	Salix tetrasperma	Salicaceae	220	12	240	18	390	20	400	33
19	Artocarpus heterophyllus	Moraceae	420	29	420	31	720	35	800	62
20	Prosopis cineraria	Fabaceae	50		43		110	5	165	
21	Neolamarckia cadamba	Rubiaceae	400	22	480	27	25		800	51
22	Mangifera indica	Anacardiaceae					planted		490	40
23	Borassus flabellifer	Arecaceae	50		65		110		170	

SL. No	BOTANICAL NAME	FAMILY	2020		2021		2022		2023	
			Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)
24	Madhuca longifolia	Sapotaceae	150	9	162	9	170	10	195	14
25	Strychnos potatorum	Loganiaceae	25		60		45			
26	Pterocarpus santalinus	Fabaceae	280	16	380	21	810	24	960	48
27	Alstonia scholaris	Apocynaceae	350	24	450	28	480	32	500	43
28	Wrightia tinctoria	Apocynaceae	230	18	260	22	310	24	400	31
29	Butea monosperma	Fabaceae	145	6	150		200	9	250	13
30	Ziziphus jujuba	Rhamnaceae	400	21	325	22	630	27	480	45
31	Mimusops elengi	Sapotaceae	350	16	360	27	710	29	900	35
32	Dalbergia latifolia	Fabaceae	325	9	400	11	345	12	400	10
33	Aegle marmelos	Rutaceae	170	10	200	14	260	15	342	XXX
34	Gmelina arborea	Lamiaceae	420	33	420	33	610	22	560	70
35	Oroxylum indicum	Bignoniaceae	300	15	315	20	700	25	470	26
36	Stereospermum tetragonum	Bignoniaceae	450	32	640	52	840	57	860	73
37	Terminalia chebula	Combretaceae	300	17	310	19	620	25	580	38
38	Terminalia bellirica	Combretaceae	270	15	380	22	630	28	660	46
39	Phyllanthus emblica	Phyllanthaceae	370	25	375	25	90 RP		110	
40	Achras sapota	Sapotaceae	400	30	270	33	345	37	400	48
41	Anacardium occidentale	Anacardiaceae								
42	Baccaurea courtalensis	Phyllanthaceae								
43	Pouteria campechiana	Sapotaceae	90							
44	Malpighia emarginata	Malpighiaceae	24							
45	Citrus limon	Rutaceae	140		158		180		220	
46	Citrus limetta	Rutaceae	200		210		220			
47	Flacourtia inermis	Flacourtiaceae	250		400	18	425	36	470	
48	Pistacia vera	Anacardiaceae	145	11	150	12	250	15		
49	Garcinia mangostana	Clusiaceae	78						35 RP	
50	Gracinia humilis	Clusiaceae			65		90		130	
51	Sandoricum koetjape	Meliaceae			62		90		120	

SL. No	BOTANICAL NAME	FAMILY	2020		2021		2022		2023	
			Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)
52	Stelechocarpus burahol	Annonaceae					110		125	
53	Artocarpus hirsutus	Moraceae	350	16	410	20	500	25	620	43
54	Artocarpus incisus	Moraceae			20		50			
55	Nephelium lappaceum	Sapindaceae			60		260			
56	Hylocereus undatus	Cactaceae	50							
57	Synsepalum dulcificum	Sapotaceae	30		36		60			
58	Syzygium samarangense	Myrtaceae	30		55		345			
59	Syzigium jambos	Myrtaceae			100		260		350	32
60	Syzigium malaccense	Myrtaceae	60		100		120		110	
61	Elaeocarpus floribundus	Elaeocarpaceae			42		100			
62	Ziziphus mauritiana	Rhamnaceae			450	56	600	60	700	65
63	Chrysophyllum cainito	Sapotaceae			16		235		400	18
64	Plinia cauliflora	Myrtaceae	55		68		190		200	
65	Persea americana	Lauraceae			34		120		170	
66	Punica granatum	Lythraceae	245		260		270		300	
67	Annona reticulata	Annonaceae	23		20				165	
68	Averrhoa carambola	Oxalidaceae	210		250	10	290	32	370	35
69	Dimocarpus longan	Sapindaceae	300		340	16	500	20	540	23
70	Syzygium zeylanicum	Myrtaceae			100		130		155	
71	Berrya cordifolia	Malvaceae					390	13	580	17
72	Phyllanthus acidus	Phyllanthaceae	80		190		205		330	
73	Averroha bilimbi	Oxalidaceae	45		160		240		320	
74	Morinda citrifolia	Rubiaceae	33						RP	
75	Psidium cattleianum	Myrtaceae	85		120		130			
76	Aquilaria malaccensis	Thymelaeaceae	57		57		159			
77	Dillenia pentagyna	Dilleniaceae	27	7	70	12	180	14		
78	Magnolia champaca	Magnoliaceae	156	7	220	9	390	10		
79	Careya arborea	Lecythidaceae	163	7	280	13	800	40		

SL. No	BOTANICAL NAME	FAMILY	2020		2021		2022		2023	
			Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)
80	Elaeocarpus angustifolius	Elaeocarpaceae	320	13	430	14	600	15	700	22
81	Mappia nimmoniana	Icacinaceae							70	
82	Myristica malabarica	Myristicaceae	73		150		270		350	10
83	Lagerstroemia minuticarpa	Lythraceae	350	27	500	40	700	58	900	68
84	Hydnocarpus alpinus	Achariaceae	90		150		350		350	70
85	Hydnocarpus pentandrus	Achariaceae	100	6	270	15	320	20	480	15
86	Naringi crenulata	Rutaceae	75		280		300	23	400	
87	Canarium strictum	Burseraceae	27		32		45			
88	Embelia tsjeriam-cottam	Primulaceae	300	17	360	20	400	25		
89	Machilus glaucescens	Lauraceae	150	13	300	15	337	20		
90	Palaquium ellipticum	Sapotaceae	93		120		150		RP	
91	Pterygota alata	Malvaceae	185	8	320	14	600	22		
92	Sterculia foetida	Malvaceae	430	19	550	26	912	33	1100	51
93	Hibiscus tiliaceus	Malvaceae	520	34	680	40	1000	57	1200	59
94	Sapindus emarginatus	Sapindaceae	270	9	400	15	520	220	240	
95	Dysoxylum malabaricum	Meliaceae							50 RP	
96	Madhuca insignis	Sapotaceae	140		190		260		320	14
97	Calophyllum calaba	Calophyllaceae	200	8	320	12	423	14	520	70
98	Aphanamixis polystachya	Meliaceae	103		200		225			
99	Melia azedarach	Meliaceae	420	18	500	23	600	32		
100	Chukrasia tabularis	Meliaceae	240	10	480	17	700	22	400	20
101	Santalum album	Santalaceae	280	10	310	14	500	15	800	26
102	Moringa concanensis	Moringaceae	500	16	550	22	690	29	750	33
103	Cinnamomum malabatrum	Lauraceae	122		200		345	13	520	
104	Crateva magna	Capparaceae	122		160		230		250	
105	Artocarpus	Moraceae	115		295		400	10	500	
106	Diospyros sps.	Ebenaceae	42		70		170		250	12
107	Chionanthus linocieroides	Oleaceae	75		240		350	14	400	15

SL. No	BOTANICAL NAME	FAMILY	2020		2021		2022		2023	
			Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)
108	Baccaurea courtallensis	Phyllanthaceae	50		80		90			
109	Salacia chinensis	Celastraceae					400			
110	Diospyros malabarica	Ebenaceae	23		50		120			
111	Pterospermum rubiginosum	Malvaceae	55		65		250			
112	Humboldtia brunonis	Fabaceae	22		18					
113	Diospyros muricata	Ebenaceae	30		46		55			
114	Calophyllum inophyllum	Calophyllaceae	25		80		150			
115	Dimorphocalyx	Euphorbiaceae	65		90		120			
116	Lasiococca comberi	Euphorbiaceae	46		100		180			
117	Ehretia microphylla	Boraginaceae	63		168		200			
118	Hopea parviflora	Dipterocarpaceae	59		140		145			
119	Cycas sp.	Cycadaceae	35		60		70			
120	Phyllanthus emblica	Phyllanthaceae	310	16	400	26	490	50	510	53
121	Nerium oleander	Apocynaceae	102	10	160	16	280	21	300	28
122	Ficus krishnae	Moraceae	365	13	500	25	600	27	750	50
123	Cocos nucifera	Arecaceae	330		400		700		800	
124	Azadiracta indica	Meliaceae	400	31	610	35	700	38	750	43
125	Areca catechu	Arecaceae	175	13	290	23	500	28	500	44
126	Cassia fistula	Fabaceae	400	9	610	27	700	30	680	42
127	Tectona grandis	Lamiaceae	675	59	900	67	1050	86	1100	94
128	Grewia tilifolia	Malvaceae	150		325		510			
129	Pimenta dioica	Myrtaceae	125		150		175	8		
130	Cinnamomum zeylanicum	Lauraceae	83		175		365	14	344	19
131	Plumeria alba	Apocynaceae	92	12	180	18	310	20	336	28
132	Cinnamomum camphora	Lauraceae	80		140		170	9	245	16
133	Murraya koenigii	Rutaceae	134		200		240	8	300	11
134	Bauhinia purpurea	Fabaceae	380	17	550	25	715	32	800	46
135	Cananga odorata	Annonaceae	43		50		400	15	481	25

SL. No	BOTANICAL NAME	FAMILY	2020		2021		2022		2023	
			Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)
136	Annona squamosa	Annonaceae	1125	5	190	8	315	11	355	16
137	Millingtonia hortensis	Bignoniaceae	245	19	350	17	610	24	700	35
138	Eucalyptus citriodora	Myrtaceae	130		300		410	8	481	30
139	Nyctanthes arbor-tristis	Oleaceae	145	5	250	7	430	9	338	16
140	Citharexylum spinosum	Verbenaceae	215	11	300	9	800	18		
141	Caryota urens	Arecaceae	21		55		250		350	
142	Ochlandra setigera	Poaceae	122		330		510		420	
143	Garcinia gummi-gutta	Clusiaceae	10		46		70		123	
144	Memecylon umbellatum	Melastomaceae	30		44		60		60	
145	Adonidia merilii	Arecaceae					150			
146	Areca triandra	Arecaceae	32		45		95		66.25	
147	Caryota mitis	Arecaceae	75		80		200		295	
148	Licula spinosa	Arecaceae	30		30		30			
149	Raphis excelsa	Arecaceae	55		80		120			
150	Livistona rotundifolia	Arecaceae			24		40			
151	Dypsis lutescens	Arecaceae	45		60		165			
152	Elaeis guineensis	Arecaceae	11							
153	Dypsis leptocheilos	Arecaceae	45		80		310			
154	Corypha umbraculifera	Arecaceae			25		35			
155	Licuala grandis	Arecaceae	25		40		65			
156	Phoenix dactylifera	Arecaceae	25		65		165			
157	Phoenix sylvestris	Arecaceae			25		75			
158	Roystonea regia	Arecaceae			105		300			
159	Calamus longisetus	Arecaceae					25			
160	Rophoblaste singaporensis	Arecaceae			85		100			
161	Ptychosperma macarthurii	Arecaceae			55		111			
162	Thrinax parviflora	Arecaceae			15					
163	Wodyetia bifurcata	Arecaceae	70		90		260			

SL. No	BOTANICAL NAME	FAMILY	2020		2021		2022		2023	
			Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)
164	Rhapis excelsa	Arecaceae	55		80		120			
165	Carpentaria pinnata	Arecaceae					150			
166	Bentickia condapanna	Arecaceae					20			
167	Cyrtostachys renda	Arecaceae	22				110			
168	Hyphaene dichotoma	Arecaceae					15			
169	Annona mucosa	Annonaceae	110	6	280	10	430		450	
170	Bixa orellana	Bixaceae	184	14	250	19	370		350	
171	Zizyphus jujuba	Rhamnaceae	80		60		200		350	
172	Caesalpinia sappan	Fabaceae	130	5	290		500		450	
173	Adenathera pavonina	Fabaceae	250	9	490	20	750		1000	
174	Thespesia populnea	Malvaceae	285	23	500	30	710		720	
175	Jatropha curcas	Euphorbiaceae	125	12	210		230		330	
176	Cassia auriculata	Fabaceae			270		275		280 +300	
177	Pterocarpus marsupium	Fabaceae	32		96		120			
178	Moringa oleifera	Moringaceae			470				90	
179	Tamarindus indica	Fabaceae								
180	Syzygium aromaticum	Myrtaceae	14							
181	Psidium guajava	Myrtaceae					140			
182	Commiphora mukul	Burseraceae	18		35		40			
183	Caesalpinea pulcherrima	Fabaceae								
184	Carissa carandas	Apocynaceae								
185	Holarrhena pubescens	Apocynaceae					30			
186	Aporosa lindleyana	Phyllantahceae					55			
187	Persea macrantha	Lauraceae					60			
188	Myristica fragrans	Myristicaceae								
189	Elaeocarpus sphaericus	Elaeocarpaceae					30			
190	Zizyphus mauritiana	Rhamnaceae					25			
191	Aphanamyxis polystachya	Meliaceae					70			

SL. No	BOTANICAL NAME	FAMILY	2020		2021		2022		2023	
			Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)
192	Symplocos cochinchinensis	Symplocaceae								
193	Woodfordia frutosa	Lythraceae							350	
194	Holoptelia integrifolia	Ulmaceae					180			
195	Pongamia pinnata	Fabaceae					200			
196	Simarauba glauca	Simaraubaceae					70			
197	Carica papaya	caricaceae							230	
198	Sesbania grandiflora	Fabaceae							480	
199	Boswelia serrata	Burseraceae								
200	Bambusa balcooa	Poaceae	600	13	900	16	1000	20	1500	
201	Bambusa bambos	Poaceae								
202	Bambusa cacharensis	Poaceae	250		250		270			
203	Bambusa glaucescens	Poaceae	66		80		120			
204	Bambusa mizoramiana	Poaceae	152		240		360			
205	Bambusa multiplex green	Poaceae	195		200		240			
206	Bambusa nutans	Poaceae	360	4	400	5	580	4	630	5
207	Bambusa pallida	Poaceae	60		100		170			
208	Bambusa polymorpha	Poaceae	235		400		470		600	
209	Bambusa sp.(Bush)	Poaceae	110		153		180		270	
210	Bambusa tulda	Poaceae	750	15	900	16	1200	27	1500	27
211	Bambusa variegata (white dragon)	Poaceae	92		120		180			
212	Bambusa ventricosa	Poaceae	170		236		300		380	
213	Bambusa vulgaris(green)	Poaceae								
214	Bambusa vulgaris(yellow)	Poaceae								
215	Bambusa wamin	Poaceae	230	16	310	19	370	22		
216	Dendrocalamus asper	Poaceae	600	8	800	12	900	14	1200	14
217	Dendrocalamus brandisii	Poaceae	500	9	600	10	700	13	800	16
218	Dendrocalamus giganteus	Poaceae	350	7	380	8	550	12	600	12

SL. No	BOTANICAL NAME	FAMILY	2020		2021		2022		2023	
			Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)
219	Dendrocalamus latiflorus	Poaceae	240		600		900			
220	Dendrocalamus longispathus	Poaceae	600	10	700	12	850	14	1050	16
221	Dendrocalamus maroochi	Poaceae								
222	Dendrocalamus membranaceus	Poaceae	110		210		80		140	
223	Dendrocalamus sikkimensis	Poaceae	300	5	480	8	650	15	650	13
224	Dendrocalamus strictus	Poaceae	580	10	630	11	700	14	1200	13
225	Gigantochloa andamanica	Poaceae					280		500	
226	Gigantochloa albociliata	Poaceae	180		220		290		320	
227	Gigantochloa atroviolacea	Poaceae	93		300		700		700	
228	Gigantochloa nigrociliata	Poaceae	28		30					
229	Gigantochloa rostrata	Poaceae	300	4	400	5	600	7	660	7
230	Guadaua angustifolia	Poaceae					NP		130	
231	Melocanna baccifera	Poaceae								
232	Ochlandra travancorica	Poaceae								
233	Ochlandra setigera	Poaceae			130		130		----	
234	Oxytenanthera abisinica	Poaceae								
235	Phyllostachys aurea	Poaceae	30		40		40			
236	Pseudooxytenanthera ritchei	Poaceae	185		330		390		400	
237	Pseudoxytenanthera stocksii	Poaceae								
238	Schizostachyum beddomeii	Poaceae								
239	Schizostachyum brachycladum	Poaceae								
240	Shibatea kumasaca	Poaceae	12							
241	Schizostachyum pergracile	Poaceae	145		238		270		300	
242	Schizostachyum dulloa	Poaceae	450	9	700	13	850	13	1100	14
243	Thyrsostachys oliveri	Poaceae	550	9	600	10	800	14	1100	16
244	Thyrsostachys siamensis	Poaceae	570	10	800	14	950	15	1200	15
245	Cinnamomum sulphuratum	Lauraceae	22		55		95		300	
246	Azadirachta indica	Meliaceae					60		94	

SL. No	BOTANICAL NAME	FAMILY	2020		2021		2022		2023	
			Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)
247	Ficus religiosa	Moraceae					35		135	
248	Helicteres isora	Malvaceae					250		500	17
249	Terminalia chebula	Combretaceae					60		202	
250	Murraya koenighii	Rutaceae					100		184	
251	Strychnos nux-vomica	Loganiaceae					30		36	
252	Flacourtia ramoutchi	Salicaceae					150		300	
253	Holarrhena pubescence	Apocynaceae					30		30	
254	Aporosa linleyana	Phyllanthaceae					55		43	
255	Coscinium fenestratum	Menispermaceae					50		36	
256	Persea macrantha	Lauraceae					60		78	
257	Pterocarpus marsupium	Fabaceae					100		210	
258	Calotropis gigantea	Apocynaceae					250		200	12
259	Madhuca longifolia	Sapotaceae					30		57	
260	Tabernaemontana divaricata	Apocynaceae					100		117	
261	Mangifera indica	Anacardiaceae					70		90	
262	Ficus racemosa	Moraceae					300		447	36
263	Tamarindus indica	Fabaceae					150		245	8
264	Annona squamosa	Annonaceae					80		100	
265	Terminalia arjuna	Combretaceae					200		410	
266	Myristica fragrans	Myristicaceae							30	
267	Citrus limon	Rutaceae					50		80	
268	Crateva magna	Capparaceae					80		73	
269	Elaeocarpus sphaericus	Elaeocarpaceae							59	
270	Oroxylum indicum	Bignoniaceae					150		300	
271	Caesalpinia sappan	Fabaceae					300		600	
272	Calophyllum calaba	Calophyllaceae					100		200	
273	Artocarpus heterophyllus	Moraceae					50		84	
274	Phyllanthus emblica	Phyllanthaceae					10		30	
275	Senegalia catechu	Fabaceae					170		330	14

SL. No	BOTANICAL NAME	FAMILY	2020		2021		2022		2023	
			Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)
276	Alstonia scholaris	Apocynaceae					140		186	
277	Terminalia bellirica	Combretaceae					120		193	
278	Spondias pinnata	Anacardiaceae					70		70	
279	Zizyphus mauritiana	Rhamnaceae					25		97	
280	Gmelina arborea	Verbenaceae					290		500	27
281	Syzygium cumini	Myrtaceae					130		330	11
282	Garcinia gummi-gutta	Clusiaceae					80		122	
283	Annona reticulata	Annonaceae					55		200	
284	Artocarpus hirsutus	Moraceae					50		160	
285	Hibiscus rosa-sinensis	Malvaceae					200		350	
286	Aphanamixis polystchya	Meliaceae					70		160	
287	Psidium guajava	Myrtaceae					150		250	
288	Vateria indica	Dipterocarpaceae					60			
289	Premna serratifolia	Lamiaceae					200		320	
290	Neolamarckia cadamba	Rubiaceae					400		600	33
291	Bixa orellana	Bixaceae					130		175	
292	Syplocos cochinchinensis	Symplocaceae								
293	Woodfordia fruticosa	Lythraceae							160	
294	Baccaurea courtallenis	Phyllanthaceae					40		40	
295	Rauvolfia serpentina	Apocynaceae								
296	Morinda citrifolia	Rubiaceae					60		126	
297	Vitex negundo	Lamiaceae					300		310	
298	Justicia adhatoda	Acanthaceae					130		55	
299	Holoptelia integrifolia	Ulmaceae					180		300	16
300	Moringa oleifera	Moringaceae					170		634	
301	Diospyros ebenum	Ebenaceae					110		211	
302	Canarium strictum	Burseraceae					145		40	
303	Aegle marmelos	Rutaceae					65		87	
304	Pongamia pinnata	Fabaceae					200		300	

SL. No	BOTANICAL NAME	FAMILY	2020		2021		2022		2023	
			Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)
305	Aquilaria malaccensis	Thymeleaceae					130		195	
306	Simarouba glauca	Simaroubaceae					70		167	12
307	Punica granatum	Punicaceae					100		164	
308	Mimusops elengi	Sapotaceae					60		226	
309	Pterocarpus santalinus	Fabaceae					60		252	
310	Thespesia populnea	Malvaceae					170		266	
311	Cinnamomum malabatrum	Lauraceae							60	
312	Mesua ferrea	Calophyllaceae					30			
313	Nerium oleander	Apocynaceae					180		290	
314	Cinnamomum camphora	Lauraceae					90		140	
315	Nyctanthes arbor-tristis	Olaeceae					180		315	
316	Butea monosperma	Fabaceae					40		180	
317	Wrightia tinctoria	Apocynaceae					50		166	
318	Saraca asoca	Fabaceae					90		185	
319	Santalum album	Santalaceae					60		125	
320	Cassia fistula	Fabaceae					80		180	
321	Hibiscus rosa-sinensis	Malvaceae							68	
322	Indigofera tinctoria	Fabaceae							90	
323	Lawsonia inermis	Lythraceae							115	
324	Adathoda beddomei	Acanthaceae							52	
325	Murraya koeinigii	Rutaceae							50	
326	Vitex negundo	Lamiaceae							120	
327	Calotropis gigantea	Apocynaceae							142	
328	Terminalia arjuna	Combretaceae							143	
329	Santalum album	Santalaceae							30	
330	Wrigtia tinctoria	Apocynaceae							49	
331	Mangifera indica	Anacardiaceae							66	
332	Justicia gendarussa	Acanthaceae							40	
333	Chromolaena odorata	Asteraceae							82	

SL. No	BOTANICAL NAME	FAMILY	2020		2021		2022		2023	
			Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)
334	Hyptis suaveolens	Lamiaceae							85	
335	Jatropha gossypifolia	Euphorbiaceae							88	
336	Ricinus communis	Euphorbiaceae							70	
337	Sida acuta	Malvaceae							40	
338	Tithonia diversifolia	Asteraceae							60	
339	Acacia mangium	Fabaceae							10	
340	Cascabela thevetia	Apocynaceae							70	
341	Eucalyptus grandis	Myrtaceae							83	
342	Gliricidia sepium	Fabaceae							10	
343	Leucaena leucocephala	Fabaceae							160	
344	Manihot carthaginensis	Euphorbiaceae							56	
345	Muntingia calabura	Muntinginaceae							120	
346	Senna spectabilis	Fabaceae							8	
347	Senna occidentalis	Fabaceae							100	
348	Catharanthus roseus	Apocynaceae							63	
349	Allamanda cathrtica	Apocynaceae							135	
350	Nerium oleander	Apocynaceae							125	
351	Calotropis procera	Apocynaceae							103	
352	Calotropis gigantea	Apocynaceae							24	
353	Laportea interrupta	Urticaceae								
354	Datura metel	Solanaceae							63	
355	Datura stramonium	Solanaceae							89	
356	Mucuna pruriens	Fabaceae							197	
357	Abrus precatorius	Fabaceae							200	
358	Plumbago indica	Plumbaginaceae							72	
359	Cleistanthus collinus	Apocynaceae							42	
360	Leucaena leucocephala	Fabaceae							14	
361	Cerbera odollam	Apocynaceae							86	
362	Cascabela thevetia	Apocynaceae							170	10

SL. No	BOTANICAL NAME	FAMILY	2020		2021		2022		2023	
			Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)	Height (in cm)	Girth (in cm)
363	Manihot glaziovii	Euphorbiaceae							228	13
364	Adenanthera pavonina	Fabaceae							68	
365	Strychnos nux-vomica	Loganiaceae							43	
366	Holigarna arnottiana	Anacardiaceae							95	
367	Ficus benjamina	Moraceae							65	
368	Lantana camara	Verbanaceae							180	
369	Asclepias curassavica	Apocynaceae							25	
370	Ricinus communis	Euphorbiaceae							130	
371	Tragia involucrata	Euphorbiaceae							210	
372	Parthenium hysterophorus	Asteraceae							78	
373	Ficus racemosa	Moraceae			330	23	570	30	580	40
374	Ficus microcarpa	Moraceae			280	11	300	17	300	18.5
375	Ficus religiosa	Moraceae			1300	116	1400	127	1500	135
376	Ficus benghalensis	Moraceae			270	17	500	29	520	35
377	Dysoxylum malabaricum	Meliaceae							25	
378	Pterocarpus santalinus	Fabaceae							15	
379	Santalum album	Santalaceae							55	
380	Rhizhophora mucronata	Rhizophoraceae							48	
381	Bruguiera sexangula	Rhizophoraceae							70	
382	Aegiceras corniculatum	Rhizophoraceae							64	
383	Bruguiera gymnorrhiza	Rhizophoraceae							40	
384	Bruguiera cylindrica	Rhizophoraceae							30	
385	Avicinnia officinalis	Rhizophoraceae							160	
386	Acanthus ilicifolius	Acanthaceae							171	
387	Ceriops tagel	Rhizophoraceae							23	

RP- Replanted NP- Newly Planted

What our Visitors say

Dr. S. Geethalakshmi & Mr. M. Sakthivel - 13/7/2023

RVS College, Sulur

Very beautiful place with varieties of flowers and butterflies are nice to see and cherish

Dr. A. Mayavel -04/05/2023

Scientist, IFGTB, Coimbatore

Maintained very well. Really it is an amazing world of knowledge in plants. It is very useful to public, students and researchers.

Dr. Syam Viswanath - 14/09/2023

Former Director, KFRI, Peechi

Green Ahalia has been doing commendable work as observed during the past 5 years under the leadership of Dr. K. Haridasan. Bagging several recognition and award such as Biodiversity Conservation Award of KSSD, Vanamithra Award of KFD in Palakkad district, recognition by BGCI. Very innovative ideas and its execution has been the hallmark of Green Ahalia team. Wish the team all success and many more laurels in the upcoming years

Dr. G.E. Mallikarjuna Swamy -31/10/2023

KFRI Nilambur, Sub-centre

Visited Green Ahalia Garden. All the thematic areas are enriched with good number of plants. And the maintenance of the garden is well appreciated. This will become one of the good reference libraries for the students and academicians.

Prof. M. Sabu -15/12/2023

CSIR Emeritus Scientist, Malabar Botanical Garden and Institute of Plant Science, Kozhikkode

I have a short visit to the garden after a gap of five years. It is amazing to see the development in the garden with the

addition of a large of plants in different themes. The plant grown below solar panel is a new idea. Congratulation to Dr. Haridasan, Mr. Sabik, Mr. Shaibu and the team for its wonderful work, they have made this with very few staff.

Dr. Parvathy Warrier -10/01/2024

Appreciation for their endeavours to team Green Ahalia. And I wish would definitely work wonders in the coming years too. My best wishes for the noble innovations.

Dr. Anita Varghese & Team- 05/02/2024

Keystone Foundation, Kothagiri

It was a most inspiring and memorable trip to Green Ahalia. It is scientific, ecological and cultural approach to biodiversity conservation. Green Ahalia efforts are to be appreciated. The mixture of development and biodiversity is unique and notable. What an excellent team lead by Dr. Haridasan. Your passion for your work was inspiring to see.

Dr. P. Sujanapal -26/02/2024

Principal Scientist, KFRI Peechi

Excellent and dynamic team headed by Dr. Haridasan. All the very best.

Dr P.E. Rajasekharan

Principal Scientist, (IIHR, Banglore)

This time visit I could see a better version and improved a lot. Wishing all the very best wishes to the team.

The Team

Sri. Sarath	Operations Manager
Dr. K. Haridasan	Consultant, Bio-resourses
Mr. Shaibu V.T.	Asst. Manager
Mr. Sabik S.	Botanist
Ms. Amrutha M.A.	Research Assistant(till August, 2023)
Ms. Aiswarya H.	Research Assistant,
Mr. Midhun M.	Research Assistant

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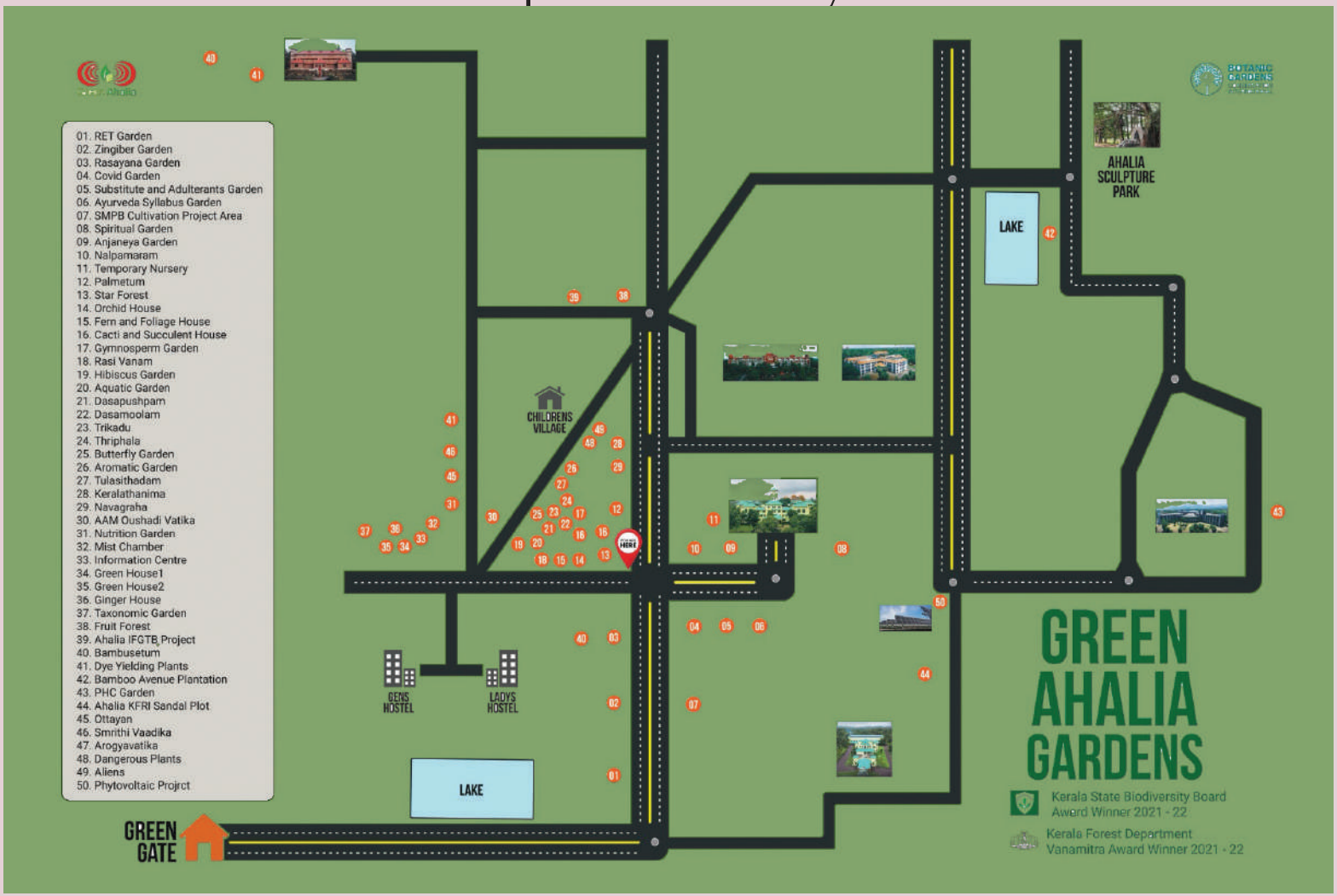
Glimpses round the year

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MENMA


Herbal Plants & Home Remedies


OPPO A5 2020