



**BOTANICAL SURVEY OF INDIA
ANDAMAN AND NICOBAR REGIONAL CENTRE
PORT BLAIR**

BOTANICAL SURVEY OF INDIA, PORT BLAIR

ANDAMAN & NICOBAR REGIONAL CENTRE

- **Established** : **30-03-1972**
- **Jurisdiction** : **Andaman & Nicobar (*ca* 8249 sq. km.)**
- **Herbarium Acronym** : **PBL**
- **Explorations** : **255 exploration tours**
- **Accessioned Sheets** : **40,000**
- **Type specimens** : **418**
- **New Genera** : **3**
- **New Species** : ***ca* 116**
- **Publications** : **7 books & 1248 research articles**
- **Library holdings** : **5123 books & Journals**
- **Experimental Garden** : **Dhanikhari Exp. Garden-cum-Arboretum (DEGCA)(30 Ha.) *ca* 600 spp.**

1.
**PROGRESS OF SCIENTIFIC WORKS AS PER THE
ANNUAL ACTION PLAN
(April, 2020 to March, 2021)**

As per approved annual action plan 2020-2021

1. No. of Projects: 04

2. No. of field tours: 04

(One on Q3 & Three on Q4)

3. No. of Herbarium consultation tours: Nil

All field tours have been undertaken.

Project 1. Revision of the family *Musaceae* in Andaman and Nicobar Islands along with population assessment.

Dr. Lal Ji Singh, Scientist – E &
Shri Gautam Anuj Ekka, Sr. Pre. Asstt.

TARGETS/ WORK DONE & ACHIVEMENTS:

- Consultation of relevant literature and herbarium.
- Field tour : **02**
- Field tour undertaken: **02**
 - Middle Andaman (11.02.2021 to 17.02.2021)
 - Little Andaman (04.03.2021 to 11.03.2021)
 - Total area covered: 2,230 km² (Middle Andaman -1,523 km² and Little Andaman- 707 km²)
 - 14 field numbers (04+10) 35050-35063 of the family Musaceae were vouched along with GPS details.

Literature and herbarium consulted.

27 herbarium specimens (housed at PBL) including type specimens of family Musaceae were examined and identified into Genus *Musa* with 4 species (*Musa acuminata* Colla., *M. balbisiana* Colla., *M. indandamanensis* L.J. Singh and *M. paramjitiana* L.J. Singh).

All the determinavited specimens were incorporated into the herbarium (PBL).

1. Wild germ plasm of 03 species of *Musa* (*Musa acuminata* Colla, *Musa balbisiana* Colla. and *Musa indandamanensis* L.J. Singh) was collected and introduced in the Garden has a part of *ex-situ* conservation. Besides, 21 species of rare & threatened and endemic plants were collected from various forest areas of group of Andaman Islands and introduced in garden.
2. Raised nursery of 9 species has a part of *ex-situ* conservation.
3. Raised nursery of 03 species of *Musa* (*Musa acuminata* Colla, *Musa balbisiana* Colla. and *Musa indandamanensis* L.J. Singh) and maintained in nursery.
4. Besides, raised nursery of 9 species of Rare, Endemic and Threatened plants (*Bentinckia nicobarica* (Kurz) Becc., *Cycas zeylanica* (J. Schust.) A. Lindstr. & K.D. Hill, *Garcinia dhanikhariensis* S.K. Srivast. *Grewia calophylla* Kurz ex Mast., *Mangifera andamanica* King, *Musa indandamanensis* L.J. Singh, *Rhopaloblaste angustata* (Kurz) Moore, *Semecarpus kurzii* Engl., *Pterocarpus dalbergioides* Roxb. ex DC.) has a part of *ex-situ* conservation during COVID-19 lockdown in the month of June, 2020.

A natural habitat of *Musa balbisiana* Colla. at Middle Andaman

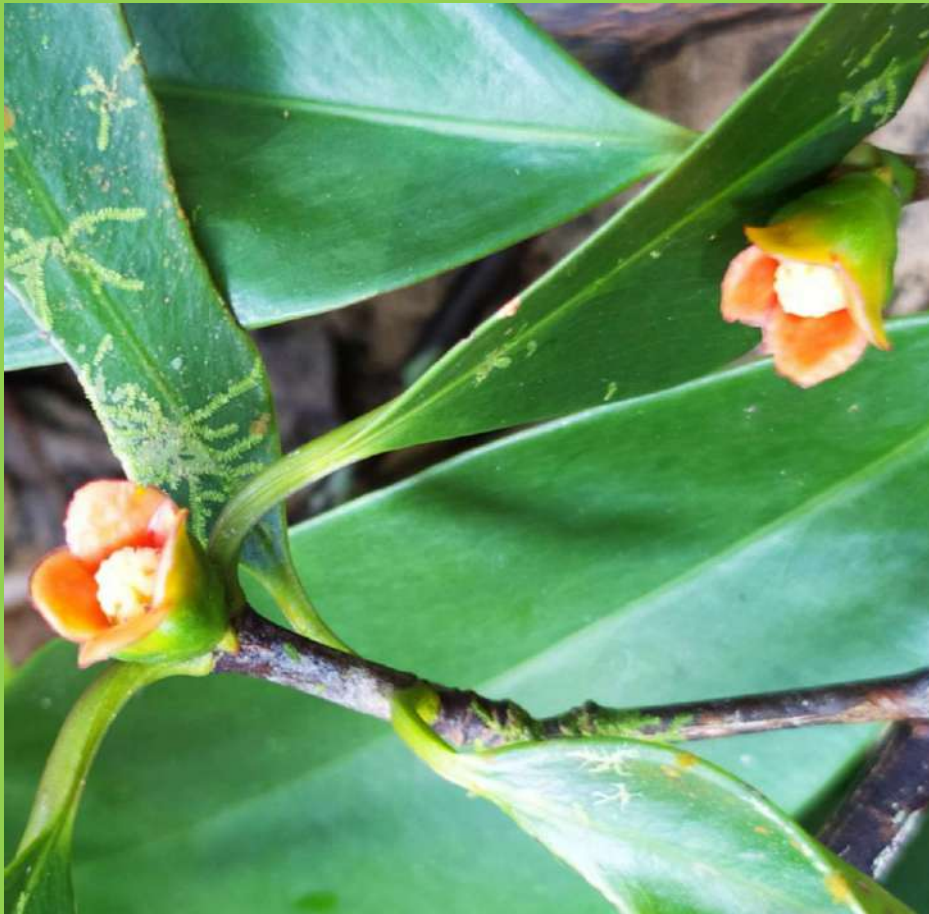


A natural habitat of *Musa indandamanensis* L. J. Singh at Little Andaman



Project 2. PHENOLOGICAL SURVEY OF TREE SPECIES OF DHANIKHARI EXP. GARDEN-CUM-ARBORETUM (DEGCA), NAYASHAHAR, SOUTH ANDAMAN. (Initiated from April, 2011- On going project)

**Dr. Lal Ji Singh, Scientist – E &
Shri. Bishnu Charan Dey, Botanical Assistant**



TARGET:

- Recording of Phenology of tree species of Andaman and Nicobar Islands.

ACHIVEMENTS:

- Flowering and fruiting of 73 tree species of Dhanikhari Exp. Garden-cum-Arboretum have been recorded.

Project 3. Ex-situ conservation of RET species (Bamboos, Palms, Zingibers, endemic tree species) of Andaman and Nicobar Islands at Dhanikhari Exp. Garden cum Arboretum and raise nursery. (April, 2019 to March, 2022)

**Dr. Chandan Singh Purohit, Scientist-C &
Dr. Vivek C. P., Botanical Assistant**

WORK DONE & ACHIVEMENTS:

➤ Field tour undertaken: 03

- **South Andaman** was conducted *w.e.f.* 31.06.2020 to 02.07.2020. 46 Nos. of seeds/seedlings/plantlets.
- **South Andaman** was conducted *w.e.f.* 05.12.2020 to 11.12.2020. 4,006 live plants (2,366 seedlings and 1,642 plantlets), 7 cuttings and 1,135 seeds of 24 threatened endemic plant species and 92 voucher specimens (Field Nos. 34144 to 34166).
- **Middle Andaman** was conducted *w.e.f.* 11.02.2021 to 17.02.2021. 228 live plants (19 plant species), 780 seeds of 7 threatened endemic plant species and 15 voucher specimens (34167 to 34181)

Project 4. REVISION OF THE LICHEN FAMILY PYRENULACEAE IN INDIA (April, 2017 to March, 2022)

Dr. Jagadeesh Ram T.A.M., Scientist 'E'

ACHIVEMENTS:

➤ Field tour : Nil

A total of 200 specimens were examined and identified into 2 species of *Anthracothecium*, 2 species of *Lithothelium* and 22 species of *Pyrenula*. Taxonomic Descriptions of 13 species of *Pyrenula* were prepared.

Interesting findings (2020-2021):

New Species/ New Varieties discovered: **04 nos.**

New Records for India: **01 nos.**

New Records for States: **07 nos.**

04 new species

- *Rivina andamanensis* L. J. Singh & M. Chennakesavulu Naik, (Petiveriaceae)
- *Dendrophthoe gamblei* L.J. Singh, V. Ranjan, Rasingam and J. Swamy (Loranthaceae)
- *Luisia diglipurensis* Sanjay Mishra & Jalal (Orchidaceae)
- *Luisia jarawana* Sanjay Mishra & Jalal (Orchidaceae)

01 new record for India

- *Desmodium heterocarpon* subsp. *ovalifolium* (Prain) H. Ohashi (FABACEAE)

07 new record for Andaman and Nicobar Islands

- *Crotalaria verrucosa* L. (FABACEAE).
- *Senna auriculata* (L.) Roxb. (FABACEAE),
- *Arthraxon hispidus* (Thunb.) Makino (POACEAE).
- *Ammannia auriculata* Willd. (LYTHRACEAE).
- *Chlorophytum vestitum* Baker (ASPARAGACEAE).
- *Christisonia siamensis* Craib (OROBANCHACEAE).
- *Elatostema cuneatum* Wight (URTICACEAE).

Rivina andamanensis L.J.Singh & M.C. Naik
Described from Kalsi Forest, Middle Andaman



***Dendrophthoe gamblei* L.J. Singh, V. Ranjan, Rasingam & J. Swamy**

Described based on the specimens collected by James Sykes

Gamble from the Eastern Ghats (Yarlampalli, 2000 ft, Anantpur district, Andhra Pradesh, in 1889)



PUBLICATIONS

Published
Research Papers: 33

Ex-situ Conservation

ANRC is maintaining the Dhanikhari Experimental garden cum Arboretum, (DEGCA) about 16 km from Port Blair with a focus on both *in-situ* and *ex-situ* conservation of over 600 plant species with some economically important species.

Defined the DEGCA into various sections

- Aquatic Plants
- Bambusetum
- Cycads Conservatory
- Experimental Plot
- Fernery
- Herbal Garden & Dhanvantri Medicinal Plot
- Kurz Plot (Endemic, Endangered and Threatened Plants)
- Nursery
- Navagrah Vatika
- Orchidarium
- Palmetum
- Succulent Plants
- Economically Important Wild Plants
- Wild Bananas and Zingibers
- Spices Garden (**development initiated**)

DHANIKHARI EXPERIMENTAL GARDEN CUM ARBORETUM (DEGCA)



An excellent center for collection of plant species as well as *ex-situ* and *in-situ* conservation in the Andaman & Nicobar Islands

HERBAL GARDEN





ORCHIDARIUM
No of species: 56





Seedlings raised in the nursery



SUCCULENT PLANTS
No of species: 17



Under ex-situ conservation



Euphorbia epiphylloides Kurz. Euphorbiaceae -an endemic species



NAVGRAH VATIKA

NAVGRAH VATIKA



Proposed Annual Action Plan (April, 2021- March, 2022)

Nature of Tour	Q1	Q2	Q3	Q4	Total
Field tour	1	2	1	1	5
Herbarium Consultation Tour	1	0	0	1	2

Note:

1. Revision of the family Musaceae in Andaman and Nicobar Islands along with population assessment:

Proposed duration 2020-2025 ; Approved duration- 2020-2022.

(As Andaman and Nicobar Islands are a group of 572 Islands and due to Covid-19 pandemic many restrictions are enforced by the local administration for conducting field tours, it is requested to consider the present situation and extend the project duration (2020 – 2024) instead of 2020-2022).

2. Dr. Jagadeesh Ram TAM proposed 2 herbarium consolation tours but transferred to BSI, SRC

3. Conservation Assessment and GIS mapping of Endemic trees of Andaman & Nicobar Islands (Proposed new project – team leader: Dr. C.S. Purohit)

Herbarium sheets digitized (April, 2020 to March, 2021)

- No. of herbarium sheets Scanned: **184 nos.**
- Herbarium details computerized in XL format: **625 nos.**

Events Organised: 04

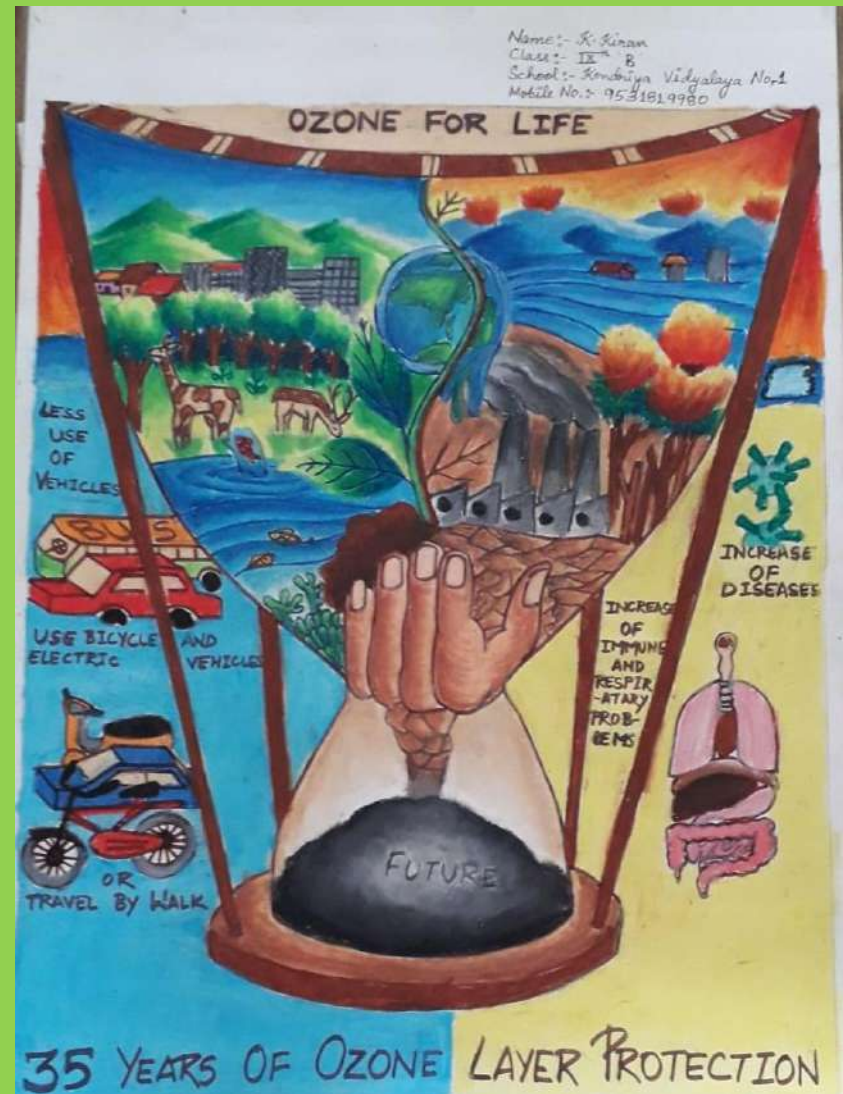
World Environment Day on 05.06.2020.



World Ozone Day-2020' on 16.09.2020

Organised virtual drawing competition for school students

Total of 510 nos. of drawing was received through WhatsApp from various schools of Andaman



Rashtriya Swachhta Diwas and Fit India Freedom Run campaign-2020



Rashtriya Swachhta Diwas and Fit India Freedom Run campaign' on 02.10.2020.



Rashtriya Swachhata Diwas and Fit India Freedom Run campaign' on 02.10.2020.



Rashtriya Swachhta Diwas and Fit India Freedom Run campaign' on 02.10.2020.

50th FOUNDATION DAY-2020 (Estd.: 30th March, 1972)



Dr. Lal Ji Singh, Scientist-E and Head of Office, BSI, ANRC lightening the lamp during the celebration of 50th Foundation Day of BSI, ANRC, Port Blair on 30.03.2021.

50th FOUNDATION DAY-2020



Dr. Lal Ji Singh, Scientist-E and Head of Office, BSI, ANRC addressing the gathering during the celebration of 50th Foundation Day of BSI, ANRC, Port Blair on 30.03.2021.

SEMINARS, SYMPOSIA, WORKSHOPS, TRAINING PROGRAMS

Attended online : 16

Organized: 04

Hindi fortnight

From **1st to 15th September, 2020** and closing ceremony on **14.09.2020**.

Two days Hindi Workshop

Q. II. 24.09.2020 to 25.09.2020

Q.III. 17.12.2020 to 18.12.2020

Q. IV. 16.03.2021 to 17.03.2021.

Hindi workshop



Delivering welcome address by Dr. Lal Ji Singh, HOO, ANRC and Dr. P.V. Prasanna, Scientist-G and HOO, DRC gracing the occasion as a Chief Guest on the occasion of two days Hindi workshop at ANRC on 16.03.2021 and 17.03.2021

Hindi fortnight and Hindi Divas -2020

Observed the Hindi fortnight from 1st – 15th September, 2020
Various competitions were organized.



Hindi fortnight and Hindi Divas -2020



Hindi fortnight September 2021 Dr. Lal Ji Singh, Scientist-E and Head of Office, BSI, ANRC addressing the gathering.

Advisory services rendered

Provided seeds and seedlings of plant species (including RET) to various organizations and individuals.

Plant specimens submitted by various research organization were identified.

Performed duties as a member of various committees of the Andaman and Nicobar Administration

(Executive Council, Adim Jan Jati Vikas Samiti, Andaman and Nicobar Islands, Town Official Language Implementation Committee (TOLIC), Andaman and Nicobar Islands Biodiversity Council (ANBC), Andaman Science Association, Andaman and Nicobar Islands Medicinal Plants Board (ANMPB), Institutional Ethical Committee (IEC), Andaman and Nicobar Islands, Andaman and Nicobar Islands Biodiversity Council (ANBC), Andaman and Nicobar Islands State Board for Wildlife(ANSBW), Andaman and Nicobar Islands Biodiversity Management Committee(ANBMC)

Performed duties as a reviewer for the various International & National Journals

Partake in duties as an external examiner (evaluation of theory copies, Ph. D. Thesis etc.), question paper setter for various Universities, Colleges & Institutes.

Delivered lecture

April 2020 – March 2021

Delivered an invited lecture during Webinar on “*Overview o Floral Diversity of Andaman and Nicobar Islands*” for two days workshop on “ *Coastal and Marine Biodiversity of Islands Ecosystem*” at ZSI, ANRC, Port Blair on 07.01.2021 by **Dr. Lal Ji Singh, Scientist-E & HOO, BSI, ANRC, Port Blair.**

Latest existing man in position as on 30.04.2021: 16

Total No. of sanctioned Post : 46 + 01 (Created post Junior Hindi Translator)

Sl. No.	Name of Officer/ Staffs	Designation	Remarks
1.	Dr. Lal Ji Singh	Scientist –E	
2.	Dr. Chandan Singh Purohit	Scientist - C	Deployed at AZRC
3.	Dr. Vivek. C.P.	Bot. Asstt.	
4.	Shri Bishnu Charan Dey	Bot. Asstt.	
5.	Shri. Gautam Anuj Ekka	Bot. Asstt.	Deployed from SRC
6.	Sr. Shiva Kumar H.D.	Bot. Asstt.	Deployed from SRC
7.	Shri. Prakash Horo	JHT	
8.	Shri Amit Kumar	LDC	
9.	Shri Aasim Ali	Steno.	
10.	Shri Philip Tigga	MTS	
11.	Shri Emil Kiro	MTS	
12.	Shri Md. Samim	MTS	
13.	Smt. Mariam Minj	MTS	
14.	Shri Manindra Paul	MTS	
15.	Shri Md. Salam	MTS	
16.	Shri k. Arumugam	MTS	

Status of CPWD / CCU Works

Details of the Minor Works/Capitals Works of BSI, ANRC, Port Blair

Estimate submitted: 04

Awaited for sanction: 04

1. Construction of **Damaged Compound wall**, Nayasahar, South Andaman
(BSI/ANRC/12/01/2019-20/Admn./3070 dated:24.12.2020)
2. **Up-gradation of Office Building** of BSI, ANRC
(BSI/ANRC/12/01/2019-20/Admn./3070 Dated.24.12.2019; BSI/ANRC/12/01/2020-21/Admn./4046 Dated.01/07/2020)
3. **Parking pavement** at BSI, ANRC
(BSI/ANRC/12/01/2020-21/Admn./4458 Dated.28.09.2020 ; BSI/ANRC/12/01/2019-20/Admn./131 Dated.26.04.2019)
4. Providing Projector, **Sound Systems and UPS** for Conference hall at BSI, ANRC
(BSI/ANRC/12/01/2020-21/Admn./4111 Dated.14.07.2020)



DAMAGED COMPOUND WALL





STEEL SCAFFOLDING SUPPORT



STEEL SCAFFOLDING SUPPORT



STEEL SCAFFOLDING SUPPORT

Status of ACRs

APAR (2020-2021) of the Scientist E has been submitted to the Director, Botanical Survey of India through proper channel on 05.04.2021.

APAR (2020-2021) of the ministerial cadre (MTS) and Technical Cadre (MTS) will be properly reported, reviewed and Submitted to the Director, Botanical Survey of India through proper channel on time.

Pending court cases

Pending Court cases - Nil

Visitors



Visitors





Thanks