# 1.3.2 Percentage of students undertaking project work/field work/internship (Data for the latest completed academic year)

**Programme Name: B.Sc. BOTANY** 

Sl.No.	Programme Code	Name of students undertaking field projects /internships/student projects	Project title page & Report /photograph of Field work	Completion Certificate
1	PWBSBO	AKHILA M	CLICK HERE	
2	PWBSBO	AKSHAYA E P	CLICK HERE	
3	PWBSBO	AKSHAYA N	CLICK HERE	
4	PWBSBO	AKSHYA M P	CLICK HERE	
5	PWBSBO	ALEENA ELIZABATH	CLICK HERE	
6	PWBSBO	ALEESHA V P	CLICK HERE	
7	PWBSBO	AMRUTHA C K	CLICK HERE	
8	PWBSBO	ANAGHA BIJU B N	CLICK HERE	
9	PWBSBO	ANJALI JAYARAJ	CLICK HERE	
10	PWBSBO	ANJANA JAMES	CLICK HERE	CLICK HERE
11	PWBSBO	ANN ELIZABETH JOSEPH	CLICK HERE	
12	PWBSBO	ARDRA C	CLICK HERE	
13	PWBSBO	ARSHA K ANEESH	CLICK HERE	
14	PWBSBO	ASHRAYA A	CLICK HERE	
15	PWBSBO	ASLY K S	CLICK HERE	
16	PWBSBO	ATHULYA MATHEW V	CLICK HERE	
17	PWBSBO	AYANA M P	CLICK HERE	
18	PWBSBO	BEEGUM BASMALA T T	CLICK HERE	
19	PWBSBO	DHANYA M	CLICK HERE	
20	PWBSBO	FATHIMA LUTHFA N K	CLICK HERE	
21	PWBSBO	FATHIMA SAFA K M	CLICK HERE	
22	PWBSBO	GAYATHRI S	CLICK HERE	-

22	DIAMBERO			
23	PWBSBO	GOPIKA SURESH P M	CLICK HERE	
24	PWBSBO	HREDIA P	CLICK HERE	
25	PWBSBO	KAVYACHANDRAN V M	CLICK HERE	
26	PWBSBO	KRISHNAPRIYA M N	CLICK HERE	
27	PWBSBO	MALAVIKA S ADARSH	CLICK HERE	
28	PWBSBO	MANJIMA M M	CLICK HERE	
29	PWBSBO	NEHA K	CLICK HERE	
30	PWBSBO	NIDHA FATHIMA V	CLICK HERE	
31	PWBSBO	NITHYA P P	CLICK HERE	
32	PWBSBO	PRIYA MARIA	CLICK HERE	
33	PWBSBO	RAFEEDA O M	CLICK HERE	
34	PWBSBO	RASHA K P	CLICK HERE	
35	PWBSBO	SOUPARNIKA N M	CLICK HERE	
36	PWBSBO	SREELAKSHMI P	CLICK HERE	-
37	PWBSBO	VEENA VIJAYAN	CLICK HERE	
38	PWBSBO	ADHEENA RAJ		
39	PWBSBO	ADITHYA G		
40	PWBSBO	ALEENA M T		
41	PWBSBO	AMAL MARIYA JOY		
42	PWBSBO	AMINA FIDA		
43	PWBSBO	AMRUTHA PRASAD T		
44	PWBSBO	ANAMIKA P BABU		
45	PWBSBO	ANASWARA V S		
46	PWBSBO	ANJALIKRISHNA U		CLICK HERE
47	PWBSBO	ANJANA P	CLICK HERE	
48	PWBSBO	ANJU JOHNY		
49	PWBSBO	ANN MARIYA VINCENT		
50	PWBSBO	ANUKRISHNA K		
51	PWBSBO	ARATHI C M		
52	PWBSBO	ARCHANA BABURAJ		
53	PWBSBO	ARYADINESH R		
54	PWBSBO	ATHMANA B		

55	PWBSBO	AYANA LIJEESH
56	PWBSBO	BALKEES G K
57	PWBSBO	DEVIKA GIRISH
58	PWBSBO	DHILNA O M
59	PWBSBO	FATHIMA RUBA K P
60	PWBSBO	FIDA SHERIN N P
61	PWBSBO	HAFEEFA SHERIN C P
62	PWBSBO	HEERA E B
63	PWBSBO	JENYA P
64	PWBSBO	JOVITA MARIA LIBERA
65	PWBSBO	KRISHNAJA K
66	PWBSBO	KRISHNENDU B M
67	PWBSBO	MANJIMA M S
68	PWBSBO	NAHLA K P
69	PWBSBO	NIVYA RAVI O
70	PWBSBO	RIFA P P
71	PWBSBO	RINSHA P K
72	PWBSBO	RUBIYA ABDULLA K K
73	PWBSBO	SHADA FATHIMA V P
74	PWBSBO	SHWETHA S
75	PWBSBO	SNEHA K M
76	PWBSBO	SURURA SHIRIN P T
77	PWBSBO	THEJA MANJUSH
78	PWBSBO	ADITHYA A K
79	PWBSBO	AIFA P
80	PWBSBO	AISWARYA C
81	PWBSBO	AISWARYA HARIKUMAR
82	PWBSBO	AISWARYA LAKSHMI K
83	PWBSBO	AKSHAYA A K
84	PWBSBO	ALBY ALEX
85	PWBSBO	ALFIDA K P
86	PWBSBO	AMIRSHA M P
87	PWBSBO	AMITHA K A

88	PWBSBO	AMRUTHA A J	
89	PWBSBO	ANANYA MOHAN A K	
90	PWBSBO	ANJALI P	
91	PWBSBO	ANJANA M GIGI	
92	PWBSBO	ANJU THOMAS	
93	PWBSBO	ANU MARIA JOSEPH	
94	PWBSBO	ARDRA T S	
95	PWBSBO	ATHIRA O	
96	PWBSBO	AYISHA	
97	PWBSBO	BHAVANA BHASKARAN	
98	PWBSBO	BHAVANA T	
99	PWBSBO	BHAVYA K	
100	PWBSBO	FATHIMA SANA P P	
101	PWBSBO	FATHIMA THANHA K	
102	PWBSBO	FAYISA T	
103	PWBSBO	HENNA M	
104	PWBSBO	HIBA SATHAR P P	
105	PWBSBO	LADEEDA NUZRIN N R	
106	PWBSBO	MARIYA JISNA T J	
107	PWBSBO	NANDANA N K	
108	PWBSBO	NAZNEEN	
109	PWBSBO	NIMISHA ROY	
110	PWBSBO	RABEEBA BACKER	
111	PWBSBO	RAHEEFA E K	
112	PWBSBO	RAMISHA M P	
113	PWBSBO	RESHMA R RAJ	
114	PWBSBO	REVATHI	
115	PWBSBO	SANA M	
116	PWBSBO	SHADA C	
117	PWBSBO	SHANIYA P SHAJU	
118	PWBSBO	SHINCY M DAS	
119	PWBSBO	SNEHA K K	

# INTERNSHIPS/FIELD WORK/PROJECT Department of Botany2021-22

## Providence Women's College

Re-Accredited with A+ Grade by NAAC

Principal:

0495-2371697

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0495-2371696, 2372487

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: 0495-2371059

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: providencecollegecalicut@gmail.com

: www.providencecollegecalicut.ac.in



CARMEL HILL MALAPARAMBA (P.O.) **CALICUT - 673 009** 

### CERTIFICATE

This is to certify that the following students of III year Botany UG completed their project/ fieldwork as a part of their curriculum during the academic year 2021-22

AKHILA M	
AKSHAYA E P	
AKSHAYA N	
AKSHYA M P	
ALEENA ELIZABATH	
ALEESHA V P	
AMRUTHA C K	
ANAGHA BIJU B N	
ANJALI JAYARAJ	
ANJANA JAMES	
ANN ELIZABETH JOSEPH	
ARDRA C	
ARSHA K ANEESH	
ASHRAYA A	
ASLY K S	
ATHULYA MATHEW V	
AYANA M P	
BEEGUM BASMALA T T	
DHANYA M	





Dr. Sr. Jaseena Joseph Principal (PEN 470173) Providence Women's College Kozhikode - 673 009



Date: 02/05/2022

### **CERTIFICATE**

Certified that this project entitled 'Morphological and anatomical characterisation along with the application of Quick Response (QR) code for digitization of selected campus trees' submitted to the university of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by ARSHA - K - ANEESH Reg. no. PWATSBOOOL during the period 2019-22 in the Department of Botany.

Supervising teacher

Examiners

Certified by Department of Botany Providence Women's College

KOZHIKODE-9

nce Women

Kozhikode-673009, Kerala



# PROVIDENCE WOMEN'S COLLEGE, KOZHIKODE

Date: 02/05/2022

### CERTIFICATE

Certified that this project entitled 'Morphological and anatomical characterisation along with the application of Quick Response (QR) code for digitization of selected campus trees' submitted to the university of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by ATMULYA MATHEWS. Reg. no PWATSBOOO2... during the period 2019-22 in the Department of Botany.

Supervising teacher

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MOZHKODE-9

Department of Bota
Province Women's Co

e Woman



Date: 02/05/2022

### CERTIFICATE

Certified that this project entitled 'Morphological and anatomical characterisation along with the application of Quick Response (QR) code for digitization of selected campus trees' submitted to the university of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by KRISHTSAPRIYA. M. M. Reg. no. PWATSBO. CR3...during the period 2019-22 in the Department of Botany.

Supervising teacher

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Examiners 1.

2

S NOTANY . STORY S

Certified by



Date: 02/05/2022

### CERTIFICATE

Supervising teacher

Examiners

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KOZH Certified by Head

Department of Botany
Providence Women's College

Kozhikode-673009, Kerala



Date: 02/05/2022

### CERTIFICATE

Certified that this project entitled 'Morphological and anatomical characterisation along with the application of Quick Response (QR) code for digitization of selected campus trees' submitted to the university of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Hotany, is an authentic record of work done by SREE LINSHIM P Reg. no. PLIFITSBOODS during the period 201922 in the Department of Botany.

Supervising teacher

Examiners 1. Survey 2

Certified by

KOZHIKODE 9

Kozniklodu 673009



Date: 02/05/2022

### **CERTIFICATE**

Certified that this project entitled 'INCORPORATION OF QUICK RESPONSE (QR) CODE

AND DIGITALIZATION OF DATA ON SELECTED CAMPUS TREES' submitted to the

University of Calicut in partial fulfilment of the requirements for the award of degree of

Bachelor of Science in Botany, is an authentic record of work done by

Algebra V.P.

Reg. no. PWATSBOOOG. during

the period 2019-22 in the Department of Botany.

Supervising Teacher Anchana

Examiners

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2.

Certified by,

KOZHIKODE-9



Date: 02/05/2022

### CERTIFICATE

Certified that this project entitled 'INCORPORATION OF QUICK RESPONSE (QR) CODE AND DIGITALIZATION OF DATA ON SELECTED CAMPUS TREES' submitted to the University of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by ANJANA TAMES Reg. no. PWATS.BOOOS during the period 2019-22 in the Department of Botany.

Supervising Teacher

Examiners

ce Women



Date: 02/05/2022

### **CERTIFICATE**

Supervising Teacher

Examiners

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Certified by, P. KOZHIKODE-9



Date: 02/05/2022

### **CERTIFICATE**

Certified that this project entitled 'INCORPORATION OF QUICK RESPONSE (QR) CODE

AND DIGITALIZATION OF DATA ON SELECTED CAMPUS TREES' submitted to the

University of Calicut in partial fulfilment of the requirements for the award of degree of

Bachelor of Science in Botany, is an authentic record of work done by

NITHYA: P. P.

Reg. no. PWATSBOOLO. during
the period 2019-22 in the Department of Botany.

Supervising Teacher

Examiners

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CECTIFICO DE 9



Date: 02/05/2022

### CERTIFICATE

Certified that this project entitled 'INCORPORATION OF QUICK RESPONSE (QR) CODE AND DIGITALIZATION OF DATA ON SELECTED CAMPUS TREES' submitted to the University of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by Dauparuka N:M Reg no PWATSBOOIL during the period 2019-22 in the Department of Botany.

Supervising Teacher

Examiners

KOZHIKODE-9 ce Women



Date: 02/05/2022

### CERTIFICATE

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Supervising teacher pulc Soland.

Examiners

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Certified by,
KOZHIKODE-9



Date: 02/05/2022

### CERTIFICATE

Dept of Botany
Supervising teacher, Call cut

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Manage Totany S College

Koznikode-673009, Kerala



Date: 02/05/2022

### CERTIFICATE

Det Profesor Dept of Botany Supervising teacher PWC, Califut

Examiners

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Certified by,

KOZHIKODE 9



Date: 02/05/2022

### CERTIFICATE

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Examiners

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Head

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Department of Botany

Providence Nomen's College

Kozhikode-673009, Kerala



Date: 02/05/2022

### **CERTIFICATE**

Certified that this project entitled 'UTILIZATION OF QUICK RESPONSE (QR) CODE FOR FASTER DATA RETRIEVAL OF SELECTED CAMPUS TREES'submitted to the University of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by ALEENA ELIZABATH. Reg. no. PWATSBOOLG during the period 2019-22 in the Department of Botany.

Poly Peter A
Azet - Professor
Dept - Of Rotany
Supervising teacher

Examiners

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ertified by,



Date: 02/05/2022

### CERTIFICATE

### Supervising teacher

Dr. Deena Meria Jose Associate Professor & Head Department of Botany Providence Women's College Kozhikoge- 673009, Kerala



Head
Department of Botany
Providence Women's College
Kozhikode-673009, Kera

Examiners

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2.



Date: 02/05/2022

### CERTIFICATE

Certified that this project entitled 'INTEGRATION OF DIGITAL TECHNOLOGY TO AUGUMENT DATA RETRIEVAL IN A FEW ANGIOSPERM SPECIES OF THE CAMPUS' submitted to the University of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by ANACTHA BIJU. B.N. Reg. no. PWATS BOOIS during the period 2019-22 in the Department of Botany.

Supervising teacher

Dr. Deena Meria Jose Associate Professor & Head Department of Botany Providence Women's College Kozhikode-673009, Kerala KOZHIKODE-9

Head
Department of Botany
Providence Women's College
Kozhikode-673009, Kerala

Examiners



Date: 02/05/2022

### CERTIFICATE

Supervising teacher

Dr. Deena Meria Jose Associate Professor & Head Department of Botany Providence Women's College Kozhikode- 673009, Kerala Les

KOZHIKODE

Head
Department of Botany
Procence Women's College
Koznikode-673009, Kerala

**Examiners** 

1

2.



Date: 02/05/2022

### **CERTIFICATE**

### Supervising teacher

Dr. Deena Meria Jose Associate Professor & Head Department of Botany Providence Women's College Kozhikode- 673009, Kerala



Head Department of Botany Providence Women's College Kozhikode-673009, Kerala

### **Examiners**

1.

2



Date: 02/05/2022

### CERTIFICATE

Certified that this project entitled 'INTEGRATION OF DIGITAL TECHNOLOGY TO AUGUMENT DATA RETRIEVAL IN A FEW ANGIOSPERM SPECIES OF THE CAMPUS' submitted to the University of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by ARDRA:

Reg. no PWATSBOOQIduring

the period 2019-22 in the Department of Botany.

Supervising teacher

Dr. Deena Meria Jose Associate Professor & Head Depart ent of Botany Providence Women's College Kozhikode- 670009, Kerala

KOZHIKODE 9

Head
Department of Botany
Providence Women's College
Kozhikode 673009 Kerala

Examiners

2



Date: 02/05/2022

### CERTIFICATE

REGISTER NUMBER: PWATSB0022

Supervising

Examiners

Teacher Pote A

dept a Boken

PINC, Calret

Certified By

Providence Women's Co Kozhikode-673009, Ke

1. 2. 15 had



Date: 02/05/2022

### CERTIFICATE

Registen Number: PWATSB0023

Supervising Toucher "
Examiners

Pilly Paten A Aut - Professor occept of Botany Pucc, Calicut

1. 15/6/5/22



Date: 02/05/2022

### CERTIFICATE

Certified that this project entitled 'Digitalization of Morphological and Anatomical Features of a Few Campus Trees' submitted to the university of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic Department of Botany.

**REGISTER NO: PWATSBO024** 

Examiners

MEN Certified By



Date: 02/05/2022

### CERTIFICATE

Features of Few Campus Trees' submitted to the university of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by Bugum. Balmala.....during the period 2019-22 in the Department of Botany.

REGISTER NUMBER: PWATSBO025

Examiners

Assi Profesions

2. Colo 122

Certified By



Date: 02/05/2022

### CERTIFICATE

Certified that this project entitled 'Digitalization of Morphological and Anatomical Features of a Few Campus Trees' submitted to the university of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic Department of Botany.

REGISTER NUMBER : PWATSBOORG

Examiners

deepl - of Boking

KOZHIKODE-9 Partience Women's epartment of Botany ler te Women's Colleg oznikode-673009, Kerala



Date: 02/05/2022

### CERTIFICATE

Certified that this project entitled 'Plant Data Management System in Botanical Garden, using QR Codes' submitted to the University of Calicut, in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by (PWATSBO (223.)) during the period 2019-22 in the Department of Botany.

KOZHIKODE-9

Supervising Teacher

Dr. Minoo Diva Associate Professor College Department of Botany Providence Women's College Kozhikode-673009, Kerala

Examiners

1. J. Z.

2.

NAME : FATHIMA LUTHFA N K

Head
Department of Botany
Providence Women's College

Kozhikode-673009, Kerala



Date: 02/05/2022

### **CERTIFICATE**

Certified that this project entitled 'Plant Data Management System in Botanical Garden, using QR Codes' submitted to the University of Calicut, in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by (PWATSBO DZS).) during the period 2019-22 in the Department of Botany.

Supervising Teacher
(Dr Minoo Divakavan)

Examiners

1.

Var -

NAME : FATHIMA SAFA K M

ce Wome



Date: 02/05/2022

### CERTIFICATE

Certified that this project entitled 'Plant Data Management System in Botanical Garden, using QR Codes' submitted to the University of Calicut, in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by (PWATSBO .029.) during the period 2019-22 in the Department of Botany.

NAME: GAYATHRIS

Supervising Teacher (Dr Minoo Divakaran)

Examiners

1/2/2/2

2.

KOZHIKODE-9



Date: 02/05/2022

### CERTIFICATE

Certified that this project entitled 'Plant Data Management System in Botanical Garden, using QR Codes' submitted to the University of Calicut, in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by (PWATSBO .030.) during the period 2019-22 in the Department of Botany.

NAME: GOPIKA SURESH P M

Supervising teacher (Dr Minos Dirakoran)

Examiners

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KOZHIKODE-9

nce Womer



Date: 02/05/2022

### CERTIFICATE

Certified that this project entitled 'Plant Data Management System in Botanical Garden, using QR Codes' submitted to the University of Calicut, in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by (PWATSBO 031...) during the period 2019-22 in the Department of Botany.

Superuising Teacher (Dr Minoo Divakavan) ENT OF

NAME: HREDIA P

KOZHIKODE-9

ence Wome

Department of Botany Providence Women's College KOZHIKOGE 673009, Kerala

Examiners

1 X6/3/1



# DEPARTMENT OF BOTANY PROVIDENCE WOMEN'S COLLEGE, KOZHIKODE

Date: 02/05/2022

### CERTIFICATE

Certified that this project entitled 'Plant Data Management System in Botanical Garden, using QR Codes' submitted to the University of Calicut, in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by (PWATSBO .0.22...) during the period 2019-22 in the Department of Botany.

NAME: KAVYA CHANDRAN V M

Supervising Teacher (Dr Minos Dinkaran)

Examiners

1. 1/2/2/2

2. 26/7/2

KOZHIKODE-9

KOZHIKODE-9

KOZHIKODE-9

## CERTIFICATE

Certified that this project entitled 'USING QR CODES ON PLANT COLLECTIONS TO FACILITATE LINKING INFORMATION WITH THEIR ASSOCIATED COLLECTIONS' submitted to the university of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by MANJIMA: M.M.PWATSBOOTS during the period 2019-22 in the Department of Botany.

MENT

KOZHIKODE-9

Pitty Peter A.

Examiners

1. John 2.

Certified By

## CERTIFICATE

Certified that this project entitled 'USING QR CODES ON PLANT COLLECTIONS TO FACILITATE LINKING INFORMATION WITH THEIR ASSOCIATED COLLECTIONS' submitted to the university of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by during the period 2019-22 in the Department of Botany.

KOZHIKODE-9

Regno: PWATSB0034

P. Hy Peter A

Examiners

1. Sunthan

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Certified By

## CERTIFICATE

Certified that this project entitled 'USING QR CODES ON PLANT COLLECTIONS TO FACILITATE LINKING INFORMATION WITH THEIR ASSOCIATED COLLECTIONS' submitted to the university of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by Nigha Fathima V (PWATSBOO35). during the period 2019-22 in the Department of Botany.

D. Hy Peter A.

Examiners

1.

KOZHIKODE-9

\* Providence Women's Color

Certified By

# CERTIFICATE

Certified that this project entitled 'USING QR CODES ON PLANT COLLECTIONS TO FACILITATE LINKING INFORMATION WITH THEIR ASSOCIATED COLLECTIONS' submitted to the university of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by during the period 2019-22 in the Department of Botany.

Pilty Peter A.

Examiners

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PWATS BOOSE

Certified By

## CERTIFICATE

Certified that this project entitled 'USING QR CODES ON PLANT COLLECTIONS TO LINKING INFORMATION **FACILITATE** WITH THEIR ASSOCIATED COLLECTIONS' submitted to the university of Calicut in partial fulfilment of the requirements for the award of degree of Bachelor of Science in Botany, is an authentic record of work done by 

## PWATSB0037

Examiners

86/2/22

AND KOZE Certified By

## CERTIFICATE

Reg no :- PWAT5B0038

Pilty Tellen A

Examiners

1. 8 / 6 /5 /2° 2. 6 /5 /2° Certified By

## Providence Women's College

Re-Accredited with A+ Grade by NAAC

Principal:

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Office

0495-2371696, 2372487

Resi

0495-2371059

E-mail

providencecollegecalicut@gmail.com

Website

www.providencecollegecalicut.ac.in



CARMEL HILL MALAPARAMBA (P.O.) **CALICUT - 673 009** 

## CERTIFICATE

This is to certify that the following students of I & II year Botany UG completed their project/ fieldwork as a part of their curriculum during the academic year 2021-22

ADHEENA RAJ	
ADITHYA G	Ī
ALEENA M T	Ī
AMAL MARIYA JOY	
AMINA FIDA	
AMRUTHA PRASAD T	
ANAMIKA P BABU	
ANASWARA V S	
ANJALIKRISHNA U	
ANJANA P	
ANJU JOHNY	
ANN MARIYA VINCENT	
ANUKRISHNA K	
ARATHI C M	
ARCHANA BABURAJ	
ARYADINESH R	
ATHMANA B	
AYANA LIJEESH	
BALKEES G K	
DEVIKA GIRISH	
DHILNA O M	
FATHIMA RUBA K P	
FIDA SHERIN N P	
HAFEEFA SHERIN C P	
HEERA E B	
JENYA P	
JOVITA MARIA LIBERA	
KRISHNAJA K	

KRISHNENDU B M	
MANJIMA M S	
NAHLA K P	
NIVYA RAVI O	
RIFA P P	
RINSHA P K	
RUBIYA ABDULLA I	ΚK
SHADA FATHIMA V	P
SHWETHA S	
SNEHA K M	
SURURA SHIRIN P T	Ü
THEJA MANJUSH	
ADITHYA A K	
AIFA P	
AISWARYA C	
AISWARYA	
HARIKUMAR	
AISWARYA LAKSHN	ИΙК
AKSHAYA A K	
ALBY ALEX	
ALFIDA K P	
AMIRSHA M P	
AMITHA K A	
AMRUTHA A J	
ANANYA MOHAN A	K
ANJALI P	
ANJANA M GIGI	
ANJU THOMAS	

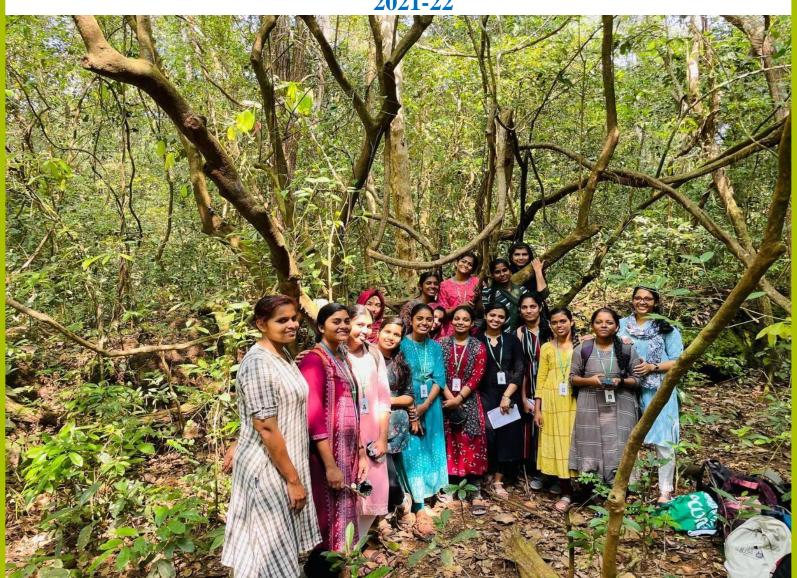
AN	U MARIA JOSEPH
ARI	DRA T S
ATI	HIRA O
AY	ISHA
BH	AVANA BHASKARAN
BH	AVANA T
BHA	AVYA K
FAT	HIMA SANA P P
FAT	THIMA THANHA K
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## STUDY TOUR REPORT

I, III & V semester BSc Botany I & III Semester MSc Botany 2021-22





## PROVIDENCE WOMEN'S COLLEGE

UGC-College with Potential for Excellence; Reaccredited by NAAC with A+ grade (GP 3.52)

Affiliated to the University of Calicut

KOZHIKODE, KERALA 673 009, INDIA

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# DEPARTMENT OF BOTANY PROVIDENCE WOMEN'S COLLEGE, KOZHIKODE-9, KOZHIKODE



## **CERTIFICATE**

Certified that this is an authentic report of the field trips / study tours conducted by students of I & III Semester M.Sc. Botany and I, III & V Semester B.Sc. Botany, Providence Women's College, during the academic year 2021-22, as part of the curriculum of BSc and M.Sc. Botany Programmes of the University of Calicut.

KCZHIKODE-9

# REPORT OF FIELD VISITS TO STUDY THE ANGIOSPERM FLORA OF ECOLOGICALLY DIFFERENT LOCALITIES

#### INTRODUCTION

Study tour aims at providing travel experience with specific learning goals. The learning goals of each study tour varies, but are always spelled out in the course syllabus that is distributed to each learner. Study tour emphasizes experimental learning and offers both groups and self-directed activities, that enable learners to explore new territories, cultures, people while providing opportunities that lead to the development of a different and deeper level of understanding. Field study is a necessity as it gives us a firsthand knowledge of the highly variant vegetation as well as their natural habit and habitats. The distribution of diverse varieties of plants in different regions and a study based on their distribution is always quite interesting.

#### **OBJECTIVES OF THE FIELD TRIP**

- 1. To broaden student's horizons and knowledge through field observations
- 2. To impart training for direct observation of specimens in their habitat
- 3. To study different ecological habitats and the associated flora.
- 5. To explore the possibility of getting motivated to pursue research
- 6. To strengthen the healthy relationship among students, and between students and teachers.

Plant communities in different geographical areas of the world differ widely from each other. On the basis of climatic and geographical conditions the earth is generally divided in to four vegetation belts, as the climate and vegetation are inseparably interrelated. Due to temperature extremes and marked seasonal fluctuations throughout the year, climatic conditions of India become of much ecological interest. These make the vegetation of the country worthy of investigations and explorative studies.

#### VISITS TO ECOLOGICALLY DIFFERENT LOCALITIES

West coast tropical evergreen forests

- Wayanad
- Kakkayam

#### Wayanad

We were a group of 15 students guided by our teachers, Dr Archana ER, Dr veena and Sr Pilty Peter. Tour started on morning 7 am February 15<sup>th</sup>, 2022 from providence college campus. Wayanad stands

on the southern top part of the Deccan Plateau and its major attraction is the grand Western Ghats with the lofty ridges interspersed with dense forests and green valleys. The evergreen forests in Wayanad mark the transition zone between the northern and southern ecologic regions of the Western Ghats. The moist forests transition to the drier South Deccan Plateau dry deciduous forests, which lie in its rain shadow to the east. The Western Ghats being the separating barrier of the two geographical regions of Peninsular India namely, the Malabar Coast and the Deccan, has both the Deccan flora along the leeward side and Malabar Coast flora along the windward side. The most outstanding feature of the Western Ghats is the formation of tropical rainforests along the windward sides. Wayanad district is with a hilly terrain on the southern Western Ghats and located in the northeast part of Kerala.

We visited the border regions forest areas associated with Meppady, Kalpetta Periya and Manathavady forest ranges of Wayanad district on 15<sup>th</sup> February 2022. West-coast tropical evergreen forest type was the major vegetation in the Meppady, Kalpetta, Periya and Manathavady forest ranges at an altitude ranging from 600m to 1300m. These forests exhibit luxuriant growth, particularly of trees and woody climbers, and the canopy is closed. High humidity, shade and sheltered condition provide ideal habitat for epiphytic as well as terrestrial orchids, ferns, mosses and herbaceous flowering plants. Epiphytes and mosses tend to increase with altitude while woody climbers decrease. It has been observed that there is difference in the composition of species with altitude and latitude. The 'evergreen families' of Western Ghats namely, Clusiaceae, Dipterocarpaceae and Myristicaceae are well represented in this forest.

The major associations of trees in these areas are Mesua-Palaquium-Cullenia, Hopea-Dipterocarpus-Vateria and Polyalthia-Myristica-Calophyllum associations. The top canopy species are *Hopea parviflora*, *Dipterocarpus indicus*, *Polyalthia coffeoides*, *Palaquium ellipticum*, *Pterygota alata*, *Vateria indica*, *Calophyllum astroindicum*, *Antiaris toxicaria*, *Artocarpus hirsutus*, *Mesua thwaitesii*, *Holigarna grahamii*, *Lophopetalum wightianum*, *Mangifera indica*, *Myristica beddomei*, *Cynometra travancorica*, *Canarium strictum*, *Terminalia travancorensis*, *Kingiodendron pinnatum*, *Knema attenuata*, *Dysoxylum malabaricum*, *Elaeocarpus tuberculatus*, *Bischofia javanica*, *Cullenia exarillata*, *etc. Poeciloneuron indicum*, *Prunus zeylanica*, *Toona ciliata and Mesua ferreaare* also were seen in the upper stratum at an altitude above 800 m.

The trees of the middle canopy comprises medium sized trees which are adapted themselves to the more shady conditions and are dominated by *Aglaia malabarica*, *Cinnamomum malabatrum*, *Dimocarpus longan*, *Drypetes oblongifolia*, *Diospyros paniculata*, *Epiprunus mallotiformis*, *Garcinia morella*, *Gordonia obtusa*, *Syzygium laetum*, *Hydnocarpus pentandra*, *Baccaurea courtallensis*, *Otonephalium stipulaceum*, *Meliosma simplicifolia*, *Humboldtia brunonis*,

Syzygium cumini, Vepris bilocularis, Syzygium munronii, Symplocos macrophylla ssp. rosea, Turpinia malabarica etc.

The lower story trees are Antidesma montanum, Antidesma menasu, Olea dioica, Memyecylon heyneanum, Casearia ovata, Meiogyne ramarowii, Turraea villosa, Ixora elongata, Orophea erythrocarpa, Phaeanthus malabarica, etc. The shrubby plants are mainly Psychotria spp., Aporusa acuminata, Gomphandra coriacea, Ligustrum robustum, Glycosmis macrocarpa, Strobilanthes spp., etc. and the important herbs are Begonia malabarica, Elatostema lineolatum, Girardinia diversifolia, Ophiorrhiza spp., etc. Of the rhizomatous monocotyledons Curcuma spp., Costus speciosus, Globba ophioglossa, Schumannianthus virgatus and Zingiber spp. are important. Some of the lianas intertwining the trees are Carissa inermis, Adenia hondala, Artabotrys zeylanica, Cissus spp., Derris brevipes, Entada rheedeii, Erythropalum populifolium, Caesalpinia spicata, Desmos lawii, Bauhinia phoenicea, Spatholobus purpureus, Ventilago bombaiensis, Salacia beddomei, Sarcostigma kleinii, Caesalpinia cucullata, Toddalia asiatica and Thunbergia mysorensis. We collected many flowering plants such as Melastoma malabathricum (Menispermaceae), Chasalia curviflora (Rubiaceae), Clerodendrum infortunatum (Verbanaceae), Pilea melastomoides (Urticaceae) etc. Our teachers described detailed information of plant species like their taxonomic relevance, ecological significance, economic importance etc. There has an abundance of Canscora diffusa belongs to the family Gentianaceae is a much-branched annual herb erect to about 60cm height. We collected it in wet papers and plastic covers in order to avoid drying .We took photographs of each plant specimens.

We collected many flowering plants such as *Melastoma malabathricum* (Menispermaceae), *Chasalia curviflora* (Rubiaceae), *Clerodendrum infortunatum* (Verbanaceae), *Pilea melastomoides* (Urticaceae) *etc.* on the way rto the Botanical sanctuary. We could see an abundance of *Canscora diffusa* belonging to the family Gentianaceae. We packed the collected specimens in wet papers and plastic covers in order to avoid drying. Photographs of each plant specimens were taken. While returning back we could collect a few more specimens like *Cyclea peltate*. We got back to college at 8:00 pm. It was a great experience for all of us and it gave us a lot of knowledge and memories. This tour was really helpful to study more about the habitat ecology of different angiosperm species. It helped us improve plant identification skills and taxonomical knowledge.





## Peruvannamuzhi - Janakikad, Kuttyady, Kozhikode

Janakikadu is an ecologically diverse and rich landscape located in the Maruthongara Panchayat of Kozhikode. It comes under the Kuttiyadi range of Kozhikode Forest division. It contains a strikingly diverse range of flora and fauna. It is an ecological hotspot in the Western Ghats, the eco-tourism destination of Peruvannamoozhy is home to over 680 species of rare plants.

We were a group of 15 students guided by our teachers, Dr Archana ER, Dr Veena and Sr. Pilty Peter. We started at 7 am February 12<sup>th</sup>, 2022 from Providence College campus. We reached by 10 am and obtained permission from the forest guards. We were guided by Mr Rajan (Guide) and Mr. T. Suresh (Section Forest officer). They gave us short description of the main characteristics and the medicinal or economical value of each plant. We could closely observe the different medicinal plants of Janakikadu like *Xylia xylocarpa* (*Irool*), *Holigarnaarnottiana* (Cheru), *Gmelina arborea* (Kumbil), *Strobilanthus pazhanienthus* (Kurinji) etc. Our guides helped us to identify many species and gave us valuable information about different aspects of them.

The flora of Janakikadu was predominated by many Angiosperms as well as a lot of Medicinal plants which are both economically and medicinally important. We collected many flowering plants such as Bridella retusa (Euphorbiaceae, Cipadessa baccifera (Meliaceae as well as Cardiospermum helicacabum (Sapindacae), Melastoma malabathricum (Menispermaceae), Chasalia curviflora (Rubiaceae), Clerodendrum infortunatum (Verbanaceae), Premna glaberrima (Rhizophoraceae), Pilea melastomoides (Urticaceae) etc. Our teachers described detailed information of plant species like their taxonomic relevance, ecological significance, economic importance etc. The twining herbs of Convolvulaceae members like Merremia umbellate, Ipomoea purpurea, Merremia hederacea were abundant there. Those are the main attraction of this area.

We also visited Kuttyadi forest area. We could see a good diversity of flora over these regions. Some of the plants available in this area were *Garcinia morella, Xanthophyllum arnottianum, Torenia hirsute, Canscora diffusa, Sonerila rheedei, Naravelia zeylanica, Elatostema lineolatum, Pouzolzia wightii, Murdannia semiteres* etc. We collected Echinostephia aculeata belongs to the family Menispermaceae on the way to Janakikkadu. We carried equipment required for taxonomic collections such as knife, preservatives, papers, blades, blotting paper, press etc. along with us. This forest has a huge diversity of flowering species, those bloomed flora gave as a good visual experience, we enjoyed that a lot.

This vegetation is besides the Kuttiady river, so we could see many mangrove habitats. We collected *Kandelia candel* species from Rhizophoracea family. It grows as a shrub having height approximately 11 cm. It has white-coloured flowers and elongated ovoid fruits. That was a new experience to us. That area was very attractive for tourists.

There has an abundance of Poacea species like *Pennisetum polystaciyon and Poacea barnhart*. That was a beautiful view. Along with it we found a few *Oldenlandia corymbosa and Canscora diffusa species* belonging to Rubiacea and Gentianaceae family respectively.

There was an abundance of *Melastoma malabathricum* and *Chasalia curvifolia* species. We also found *Memicyclon malabaricum* (Kayampoo) of Melastomaceae, which we haven't seen anywhere before. It is large shrub, flowers are in peduncled cyme, bright blue in colour. While returning from Janakikkadu, we collected Verbanaceae member *Stachytarpheta jamaicensis* and Boraginaceae member *Heliotropium indicum* from roadsides. We collected it in wet papers and plastic covers in order to avoid drying. We also took photographs of each plant specimens.





31/03/2022

