

## CERTIFICATE

This is to certify that the dissertation entitled " **QR Code Application In Alphonsa College Zoology museum**" is a bonafide work carried out by Ms. Anja Maria Varghese, of Department of Zoology, Alphonsa College, Pala, as partial fulfillment of the requirements for the award of B.SC. programme in Zoology of Mahatma Gandhi University during the period 2018-2021 under the supervision and guidance. This work has not been presented earlier for the award of any other degree.



Supervising Teacher

Dr. Sr. Manju Elizabeth Kuruvila

Place: Pala

Date:

Counter signed by,



Dr. Sr. Manju Elizabeth Kuruvila

Head of the Department

Alphonsa college ,Pala

## CERTIFICATE

This is to certify that the dissertation work entitled "**DIVERSITY OF BUTTERFLIES IN GARDEN AREA OF WARD XII OF MANJOOR PANCHAYATH**" is the bonafied work carried out by **Miss. Sujina Mol. P.S**, of the Department of Zoology, Alphonsa college, Pala in a partial fulfillment of the requirements for the award of B.Sc programme of in Zoology of Mahatma Gandhi university during the period 2018 to 2021.

Place: Pala

Supervising Teacher



Date:

for **Ms. Jissa Joseph**

Department of zoology

Alphonsa College, Pala

Counter signed by,



**Dr. Sr. Manju Elizabeth Kuruvila**

Head of the department

Department of zoology

Alphonsa College, Pala



**DEPARTMENT OF ZOOLOGY**  
ALPHONSA COLLEGE PALA, KOTTAYAM - 686575,  
KERALA, INDIA  
(Affiliated to MG University, Kottayam)

**CERTIFICATE**

This is to certify that the dissertation, entitled "**Spider Diversity in Selected Areas of Erattupetta Municipality, Kottayam**" submitted to the MG University of Kottayam in partial fulfillment of the requirements for the award of the Degree of **Bachelor of Science in Zoology** is a record of original research work done by **Alfia K.S.** during the period November 2020- March 2021 of her study in the Department of Zoology at Alphonsa College, Pala, Kottayam, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/Diploma/ Associateship/Fellowship or other similar title to any candidate in any University.

Place: Pala

Date:

Signature of the Guide

**Dr. AMBILI T.R.**

Asst. Prof., Department of Zoology,  
Alphonsa College, Pala

Signature of the Examiners

1.

2.

Signature of the HOD

## CERTIFICATE

This is to certify that the dissertation work entitled "A STUDY, CLASSIFICATION, VISUALIZATION AND QR CODE GENERATION OF MUSEUM SPECIMEN, IN ZOOLOGY DEPARTMENT, ALPHONSA COLLEGE PALA" is the bonafied work carried out by Ms. Anna Elizabeth Antony of the department of zoology, Alphonsa college, Pala in a partial fulfillment of the requirements for the award of B. Sc programme of in Zoology of Mahatma Gandhi university during the period 2018 to 2021 under the supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Date:

Supervising Teacher

*Manju*

Dr. Sr. Manju Elizabeth kuruvila

Department of zoology

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Counter signed by,

*Manju*

Dr. Sr Manju Elizabeth Kuruvila

Head of the department

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Alphonsa College, Pala

## CERTIFICATE

This is to certify that the project work entitled "**DIVERSITY OF BIRDS IN WARD XIII OF THALAPPALAM GRAMAPANCHAYATH**" is a bonafide work done by **Miss. GREESHMA K. SURESH** final year B.Sc. Zoology student of Alphonsa College, Pala in partial fulfillment of the requirement for the award of the Degree of Bachelor of Science in the Mahatma Gandhi University, Kottayam under my supervision and guidance.

Place: Pala

Date: 16/12/2021

Supervising Teacher



for **Ms. Jissa Joseph**

Department of Zoology

Alphonsa College, Pala

Counter Signed by,



**Dr. Sr. Manju Elizabeth Kuruvila**

Head of the Department

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**DEPARTMENT OF ZOOLOGY**

**ALPHONSA COLLEGE, PALA**

*Affiliated to Mahatma Gandhi University*

---

**CERTIFICATE**

This is to certify that the dissertation entitled "**SPIDER DIVERSITY IN SELECTED HABITATS OF KANJIRAPPALLY GRAMAPANCHAYATH**" is a bonafied work carried out by Miss. Thasleema Beegum, of the Department of Zoology, Alphonsa College, Pala in a partial fulfillment of the requirement for the award of B.Sc programme in Zoology of M.G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Date:



Ms Poornima Baby

Assistant Professor

Department of Zoology

Alphonsa College Pala

Counter signed by,



Dr. Sr. Manju Elizabeth Kuruvila

Head of the Department

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DEPARTMENT OF ZOOLOGY

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**CERTIFICATE**

This is to certify that the dissertation entitled "Study on feeding habit of earthworm" is a bonafide work carried out by Miss. Sherin Shaji., of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M.G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Date:



Mrs. Poornima Baby

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Counter signed by,



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**DEPARTMENT OF ZOOLOGY**  
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**CERTIFICATE**

This is to certify that the dissertation, entitled "**Spider diversity in Selected Areas of Ettumanoor Municipality, Kottayam**" submitted to the MG University of Kottayam in partial fulfillment of the requirements for the award of the Degree of **Bachelor of Science in Zoology** is a record of original research work done by **Vismaya Vijayan** during the period November 2020- March 2021 of her study in the Department of Zoology at Alphonsa College, Pala, Kottayam, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/Diploma/ Associateship/Fellowship or other similar title to any candidate in any University.

Place: **Pala**

Date:

Signature of the Guide

**Dr. AMBILI T.R.**

Asst. Prof., Department of Zoology,  
Alphonsa College, Pala

Signature of the Examiners

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2.

Signature of the HOD





# DEPARTMENT OF ZOOLOGY

ALPHONSA COLLEGE PALA, KOTTAYAM - 686575,  
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## CERTIFICATE

This is to certify that the dissertation, entitled "**Studies on Spider Diversity in Selected Areas of Thidanadu Gramapanchayath, Kottayam**" submitted to the MG Univeristy of Kttayam in partial fulfillment of the requirements for the award of the Degree of **Bachelor of Science in Zoology** is a record of original research work done by **Athira V.R.** during the period November 2020- March 2021 of her study in the Department of Zoology at Alphonsa College, Pala, Kottayam, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/Diploma/ Associateship/Fellowship or other similar title to any candidate in any University.

Place: Pala

Date:

Signature of the Guide

**Dr. AMBILI T.R.**

Asst. Prof., Department of Zoology,  
Alphonsa College, Pala

Signature of the Examiners

1.

2.

Signature of the HOD

## CERTIFICATE

This is to certify that the dissertation work entitled "GENERATION OF QR CODE FOR SPECIMENS OF PISCES IN THE CLASS OSTEICHTHYES FROM THE MUSEUM OF ALPHONSA COLLEGE PALA." is the bonafied work carried out by Ms. Anjana Regi Jose of the department of zoology, Alphonsa college, Pala in a partial fulfillment of the requirements for the award of B.Sc. programme of in Zoology of Mahatma Gandhi university during the period 2018 to 2021 under the supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Date:

*Manju*  
Supervising Teacher

Dr.Sr. Manju Elizabeth Kuruvila

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Counter signed by, *Manju*

Dr. Sr Manju Elizabeth Kuruvila

Head of the department

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Alphonsa College, Pala

## CERTIFICATE

This is to certify that the dissertation work entitled " **VIRTUAL REPRESENTATION OF SPECIMENS IN THE ZOOLOGY MUSEUM OF ALPHONSA COLLEGE PALA THROUGH QR CODE.**" is the bonafied work carried out by Ms Akshaya Omanakuttan of the department of zoology, Alphonsa college, Pala in a partial fulfillment of the requirements for the award of B.Sc programme of in Zoology of Mahatma Gandhi university during the period 2018 to 2021 under the supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Date:

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Supervising Teacher

Dr.Sr.Manju Elizabeth kuruvila

Department of zoology

Counter signed by,

Dr.Sr Manju Elizabeth Kuruvila

Head of the department

Department of zoology

Alphonsa College, Pala

## CERTIFICATE

This is to certify that this project entitled "**Butterfly Diversity in Alakode Panchayat of Kannur District,**" is a bonafide work carried out by *Elba Joseph*, Reg. No: 180021043003 under my guidance in the Department of Zoology, Alphonsa College, Pala during the academic year 2018-2021.

Place: Pala

Date:



Ms. Teena James

Supervising teacher

Dept. of Zoology

Alphonsa college Pala

Counter signed by,



Dr. Sr. Manju Elizabeth Kuruvila

HOD, Dept. of Zoology

Alphonsa College Pala

## CERTIFICATE

This is to certify that the dissertation work entitled "DIGITALIZATION OF ZOOLOGYMUSEUM SPECIMENS IN ALPHONSA COLLEGE PALA" is the bonafied work carried out by Ms.Shahanasalim of the department of zoology, Alphonsa college, Pala in a partial fulfillment of the requirements for the award of B.Sc programme of in Zoology of Mahatma Gandhi university during the period 2018 to 2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Date:

Supervising Teacher *Manju*

Dr.Sr.Manju Elizabeth kuruvila

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Counter signed by, *Manju*

Dr.Sr Manju Elizabeth kuruvila

Head of department

Department of zoology

Alphonsa College ,Pala

## CERTIFICATE

This is to certify that the dissertation work entitled "DIVERSITY OF DRAGONFLIES AND DAMSELFLIES IN WARD 1 OF PERUMBALAM PANCHAYATH, ALAPPUZHA" is a bonafide work carried out by Miss. Harilakshmi C.M, of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018-2021.

Place: Pala

Date: 16/7/21

Supervising Teacher

  
for Ms. Jissa Joseph

Department of Zoology

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Counter Signed by,



**Dr. Sr. Manju Elizabeth Kuruvilla**

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Department of Zoology

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DEPARTMENT OF ZOOLOGY  
ALPHONSA COLLEGE, PALA

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---

## CERTIFICATE

This is to certify that the dissertation entitled "**DIVERSITY OF ODONATA IN KIDANGOOR GRAMA PANCHAYATH, KOTTAYAM**" is a bonafide work carried out by Miss. Anjitha M Pulickal., of the department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018 - 2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Date:

*Maya George*  
Dr. Maya George

Assistant Professor

Department of Zoology

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Counter signed by,

*Manju*  
Dr. Sr. Manju Elizabeth Kuruvila

Head of the department

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DEPARTMENT OF ZOOLOGY  
**ALPHONSA COLLEGE, PALA**  
*Affiliated to Mahatma Gandhi University*

**CERTIFICATE**

This is to certify that the dissertation entitled "**QR code Generation for the species in Zoology Museum of Alphonso College, Pala**" is a bonafide work carried out by Miss. Derline Jose., of the Department of Zoology, Alphonso College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Date:

*Manju*  
Dr. Sr. Manju Elizabeth Kuruvila

Assistant Professor

Department of Zoology

Alphonso College, Pala

Counter signed by,

*Manju*  
Dr. Sr. Manju Elizabeth Kuruvila

Head of the Department

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DEPARTMENT OF ZOOLOGY  
ALPHONSA COLLAGE, PALA  
*Affiliated to Mahatma Gandhi University*

**CERTIFICATE**

This is to certify that the dissertation entitled " **GRASSHOPER DIVERSITY IN KURINJIPLAVU VILLAGE**" is a bonafide work carried out by Miss. **Helen Sam.**, of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Date:

*Maya George*  
Dr. Maya George  
Assistant Professor  
Department of Zoology  
Alphonsa college, Pala

Counter signed by,

*Manju*  
Dr. Sr. Manju Elizabeth Kuruvila  
Head of the Department  
Alphonsa College, Pala

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**ALPHONSA COLLEGE, PALA**  
Affiliated to Mahatma Gandhi University

**CERTIFICATE**

This is to certify that the dissertation entitled "**Immature stages and life cycle of different species under the order Lepidoptera**" is a bonafide work carried out by Dona Frankson, of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Date:

*Maya George*  
Dr. Maya George  
Assistant Professor  
Department of Zoology  
Alphonsa College, Pala

Counter signed by,

*Manju*  
Dr. Sr. Manju Elizabeth Kuruvila  
Head of the Department  
Alphonsa College, Pala

DEPARTMENT OF ZOOLOGY  
**ALPHONSA COLLEGE, PALA**  
*Affiliated to Mahatma Gandhi University*

**CERTIFICATE**

This is to certify that the dissertation entitled " **MANTID DIVERSITY AT THE RUBBER PLANTATION IN POOVATHODU VILLAGE**" is a bonafide work carried out by Miss. Jasmin Saji, of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Date:

*Maya George*  
Dr. MAYA-GEORGE  
Assistant Professor  
Department of Zoology  
Alphonsa College, Pala

Counter signed by:

*Manju*  
Dr. Sr. Manju Elizabeth Kuruvila  
Head of the Department  
Alphonsa College, Pala

DEPARTMENT OF ZOOLOGY

ALPHONSA COLLEGE

CERTIFICATE

This is to certify that this project entitled "**Butterfly Diversity in Chakkuppallam Panchayathu, Idukki district.**" is a bonafide work carried out by Renukamol TH, Reg. No: 180021043016 under my guidance in the Department of Zoology, Alphonsa College, Pala during the academic year 2018-2021.

Place: Pala

Date:



Mrs. Teena James

Supervising teacher

Dept. of Zoology

Alphonsa college Pala

Counter signed by.



Dr. Sr. Manju Elizabeth Kuruvila

HOD, Dept. of Zoology

Alphonsa College Pala

# ALPHONSA COLLEGE, PALA

*Affiliated to Mahatma Gandhi University*

---

## CERTIFICATE

This is to certify that the dissertation entitled " an investigation of livestock diseases among cattle in Mundakayam Grama Panchayat, Kerala " is a bonafide work carried out by Miss. Asija Antony., of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

  
Dr. Maya George

Date:

Assistant Professor

Department of Zoology

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Counter signed by,

  
Dr. Sr. Manju Elizabeth Kuruvila

Head of the Department

Alphonsa College, Pala

## CERTIFICATE

This is to certify that the dissertation entitled "**DIVERSITY OF DRAGONFLIES AND DAMSELFLIES IN WARD XI OF THIDANADU GRAMAPANCHAYTH**" is a bonafide work carried out by **Miss. Aleena Francis** of the Department of Zoology, Alphonsa College, Pala, in partial fulfillment the requirement for the award of B.Sc. programme in Zoology of M. G university during the period 2018 - 2021 supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Supervising Teacher

Date:



for **Ms. Jissa Joseph**

Department of Zoology  
Alphonsa College, Pala

Counter Signed by,



**Dr. Sr. Manju Elizabeth Kuruvila**

Head of the Department

Department of Zoology

Alphonsa College, Pala

DEPARTMENT OF ZOOLOGY

**ALPHONSA COLLEGE, PALA**

*Affiliated to Mahatma Gandhi University*

## **CERTIFICATE**

This is to certify that the dissertation entitled " **A STUDY ON ANT DIVERSITY IN WARD NO: 7 OF ELIKULAM GRAMPANCHAYATH AND IDENTIFICATION OF HERBAL EXTRACTS AS ANT REPELLENT**" is a bonafide work carried out by Miss. Devika Balachandran., of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

*Maya George*  
Dr. Maya George

Date:

Assistant Professor

Department of Zoology

Alphonsa College, Pala

Counter signed by,

*Manju*  
Dr. Sr. Manju Elizabeth Kuruvila

Head of the Department

Alphonsa College, Pala

## CERTIFICATE

This is to certify that the dissertation entitled "DIVERSITY OF BEETLES IN DIFFREND PLANTATION AREAS OF WARD VIII KAROOR PANCHAYATH" is a bonafide work carried out by Miss. SURYA SANTHOSH under my Guidance, in the Department of Zoology, Alphonsa College, Pala, during a course as partial Fulfillment of the requirements for the award of B.Sc. programme in Zoology in M.G. University during the period 2018 – 2021.

Place:



Ms. POORNIMA BABY

Date:

Supervising Teacher

Department of Zoology

Countersigned by



Dr. Sr. Manju Elizabeth Kuruvila

Head of the Department

Department of Zoology

Alphonsa College, Pala



## CERTIFICATE

This is to certify that the dissertation entitled "DIVERSITY OF BEETLES IN WETLAND AND GARDEN AREAS OF WARD IX OF UDAYANAPURAM PANCHAYATH" is a bonafide work carried out by Miss. ANJANA SHIBU, under my guidance, in the Department of Zoology, Alphonsa College, Pala, during a course as partial fulfillment of the requirements for the award of B.Sc. programme in Zoology in M.G. University during the period 2018 – 2021.

Place: PALA

Date: 15-2-2021

  
for **Ms. Jissa Joseph**

Supervising Teacher

Department of Zoology

Countersigned by,



**Dr. Sr. Manju Elizabeth Kuruvila**

Head of the Department

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Alphonsa College, Pala

# ALPHONSA COLLEGE, PALA

*Affiliated to Mahatma Gandhi University*

## CERTIFICATE

This is to certify that the dissertation entitled "**ANT DIVERSITY IN MUTTOM PANCHAYATH, IDUKKI**" is a bonafide work carried out by Miss. Aswathy David, of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

  
Ms. Teena James

Date:

Assistant Professor  
Department of Zoology  
Alphonsa college, Pala

Counter signed by,

  
Dr. Sr. Manju Elizabeth Kuruvila

Head of the Department

Alphonsa College, Pala

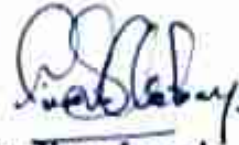
## CERTIFICATE

This is to certify that the project work entitled "EFFECTS OF NATURAL FEED AND ARTIFICIAL FEED ON COLOUR DEVELOPMENT AND GROWTH PERFORMANCE OF GUPPY (*Poecilia reticulata*)" is a bonafide work done by Miss. Anjana V S final year Bsc Zoology student of Alphonsa College, Pala in partial fulfillment of the requirement for the award of the Degree of Bachelor of science in the Mahatma Gandhi University, Kottayam under my supervision and guidance.

Place: Pala

Date: 15-7-2021

Supervising Teacher



for Ms. Jissa Joseph

Department of Zoology

Alphonsa College, Pala

Counter Signed by,



**Dr. Sr. Manju Elizabeth Kuruvila**

Head of the Department

Department of Zoology

Alphonsa College, Pala

## CERTIFICATE

This is to certify that the dissertation entitled "EFFECTS OF VARIOUS FEEDS ON FAT, PROTEIN, LACTOSE AND MINERALS IN MILK OF HOLSTEIN FRIESIAN COW" is a bonafide work carried out by Miss Maneesha Sajan, Department of zoology, Alphonsa College Pala in partial fulfillment of the requirement for the award of BSC program in Zoology of MG University during period 2018 - 2021 under my supervision and guidance.

Place: Pala

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Supervising Teacher

for

  
Ms. Jissa Joseph

Department of Zoology

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**Dr. Sr. Manju Elizabeth kuruvila**

Head of the Department

Department of Zoology

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DEPARTMENT OF ZOOLOGY

**ALPHONSA COLLEGE, PALA**

*Affiliated to Mahatma Gandhi University*

---

## CERTIFICATE

This is to certify that the dissertation entitled "ANT DIVERSITY AT ELAMPALLY VILLAGE IN PALLICKATHODU PANCHAYATH" is a bonafide work carried out by Miss. Aleena Soji., of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

  
Ms. Teena James

Date:

Assistant Professor

Department of Zoology

Alphonsa College, Pala

Counter signed by,

  
Dr. Sr. Manju Elizabeth Kuruvila

Head of the Department

Alphonsa College, Pala

DEPARTMENT OF ZOOLOGY

**ALPHONSA COLLEGE, PALA**

*Affiliated to Mahatma Gandhi University*

---

## CERTIFICATE

This is to certify that the dissertation entitled "DIVERSITY OF ANT IN SELECTED AREA OF MUNDAKAYAM GRAMA PANCHAYATH " is a bonafide work carried out by Miss. Sreelakshmi sanil, of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Date: 20/1/2021

Counter signed by,



Mrs. Poornima baby

Assistant Professor

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Alphonsa College, Pala



Dr. Sr. Manju Elizabeth Kuruvila

Head of the Department

Alphonsa College, Pala

# ALPHONSA COLLAGE, PALA

Affiliated to Mahatma Gandhi University

## CERTIFICATE

This is to certify that the dissertation entitled "FISH DIVERSITY IN PADDY FIELDS " is a bonafide work carried out by Miss. Greeshma jacob., of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Date:



Ms. Poornima Baby

Assistant Professor

Department of Zoology

Alphonsa college, Pala

Counter signed by,



Dr. Sr. Manju Elizabeth Kuruvil

Head of the Department

Alphonsa college, Pala

**DEPARTMENT OF ZOOLOGY**

**ALPHONSA COLLEGE, PALA**

Affiliated to Mahatma Gandhi university

**CERTIFICATE**

This is to certify that the dissertation entitled 'EFFECT OF NATURAL AND ARTIFICIAL FEED ON COLOUR DEVELOPMENT AND GROWTH PERFORMANCE OF GUPPY' is a bonafid work carried out by miss. Poornima Baby, of the department of zoology, alphonsa college pala, in partial fulfilment of the requirement for the award B. Sc programme in zoology of M. G university during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place :pala

Date:



Ms. Poornima Baby

Assistant professor

Department of zoology

Alphonsa college, pala

Counted signed by, 

Dr. Sr. Manju Elizabeth

Head of the department, Alphonsa college, pala



**DEPARTMENT OF ZOOLOGY  
ALPHONSA COLLEGE , PALA  
Affiliated to Mahatma Gandhi University**

**CERTIFICATE**

This is to certify that the dissertation entitled "GRASSHOPPER DIVERSITY IN PULIKUNN, MUNDAKAYAM " is a bonafide work carried out by Miss. Sherimol Shaji, of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M.G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

Date:

**Dr. Simi mol Sebastian**  
Department of Zoology  
Alphonsa College, Pala

Counter signed by,

**Dr. Sr. Manju Elizabeth Kuruvila**  
Head of the Department, Alphonsa  
College, Pala

CERTIFICATE

This is to certify that the dissertation work entitled **DIVERSITY OF MOTH IN WARD NO. 25 VAIKOM, MUNICIPALITY KOTTAYAM**

is a bonafide work carried out by **Miss. Athulya Rajendran** of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018-2021.

Place: Pala

Date:

Supervising Teacher

**Ms. Poornima Baby**

Department of Zoology

Alphonsa College, Pala

Counter Signed by,

**Dr. Sr. Manju Elizabeth Kuruvila**

Head of the Department

Department of Zoology

Alphonsa College, Pala

## CERTIFICATE

This is to certify that this project entitled "**Butterfly Diversity in Alakkode Panchayath of Kannur District.**" is a bonafide work carried out by Aleena Baby, Reg. No: 180021042979 under my guidance in the Department of Zoology, Alphonsa College, Pala during the academic year 2018-2021.

Place: Pala

Date:



Ms. Teena James

Supervising teacher

Dept. of Zoology

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Counter signed by,

Dr. Sr. Manju Elizabeth Kuruvila

HOD, Dept. of Zoology

Alphonsa College Pala

## CERTIFICATE

This is to certify that the dissertation work entitled "DIVERSITY OF BUTTERFLIES IN GRASSLAND AREA OF WARD XII OF MANJOOR PANCHAYATH" is the bonafide work carried out by Miss. P.S. Nayana, of the department of Zoology, Alphonsa College, Pala, in a partial fulfilment of the requirements for the award of BSc Programme of in Zoology of Mahatma Gandhi University during the period 2018 to 2021.

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Date:

Supervising Teacher

  
for Ms. Jissa Joseph

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This is to certify that the dissertation, entitled "**Effect of Artificial and Natural Feed on Growth And Colour Development of Guppy (*Poecilia reticulata*)**" submitted to the MG University of Kottayam in partial fulfillment of the requirements for the award of the Degree of **Bachelor of Science in Zoology** is a record of original research work done by **Amruthamol K R** during the period November 2020- March 2021 of her study in the Department of Zoology at Alphonsa College, Pala, Kottayam, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/Diploma/Associateship/Fellowship or other similar title to any candidate in any University.

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This is to certify that the dissertation, entitled "**Studies on Moth Diversity in Selected Areas of Ramapuram Gramapanchayath, Kottayam District**" submitted to the MG Univeristy of Kttayam in partial fulfillment of the requirements for the award of the Degree of **Bachelor of Science in Zoology** is a record of original research work done by **Athulya Dev P.** during the period November 2020- March 2021 of her study in the Department of Zoology at Alphonsa College, Pala, Kottayam, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/Diploma/ Associateship/Fellowship or other similar title to any candidate in any University.

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This is to certify that dissertation entitled "Bird Diversity In Ward No: 9 Of Bisonvalley Village, Idukki District" is a bonafide work carried out by Miss **Dr.Simimol Sebastian** of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

Place: Pala

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## **CERTIFICATE**

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This is to certify that the dissertation entitled " Bird diversity in ward No. 13 of Karoor Gramapanchayath, Kottayam District" " is a bonafide work carried out by Miss. Johnseena N M., of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B.Sc. Programme in Zoology of M. G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

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## CERTIFICATE

This is to certify that the dissertation entitled " BUTTERFLY DIVERSITY IN THALANAD GRAMAPANCHAYAT WARD 1 & 2" is a bonafide work carried out by Miss. **Soyal K. Peter**, of the Department of Zoology, Alphonsa College, Pala, in partial fulfilment of the requirement for the award of B Sc. Programme in Zoology of M. G. University during the period 2018-2021 under my supervision and guidance. This work has not been presented earlier for the award of any other degree.

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