

A PROJECT REPORT ENTITLED  
**EFFECTIVENESS OF INSECTICIDES AS SEED  
TREATMENT AGAINST YELLOW STEM BORER**  
*(Scirpophaga incertulas(walker))*

*Dissertation submitted to the University of Calicut for the partial Fulfillment of  
the requirement for the award of degree of*  
**MASTER OF SCIENCE IN ZOOLOGY**



Submitted by

**FATHIMA NASRIN C**

Reg. No: KVAWMZL005

Under guidance of

**Mrs. RESMI M**

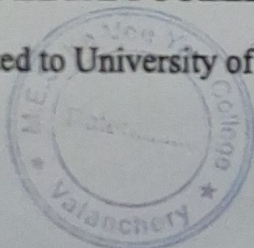
**Assistant Professor**



**POST GRADUATE DEPARTMENT OF ZOOLOGY**

**MES KEVEEYAM COLLEGE, VALANCHERY, KERALA, INDIA 2024**

(Affiliated to University of Calicut & NAAC reaccredited with 'A+' grade)



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Dated: 18-06-2024

Dr. K Karthikeyan  
Professor (Entomology)

### BONAFIDE CERTIFICATE

This is to certify that Mrs. FATHIMA NASRIN C Register no KVAWMZL005 IVth semester M.Sc Zoology underwent a research project training at Regional Agricultural Research Station, Pattambi for doing the laboratory procedure and the allied activities of her M.Sc dissertation titled 'EFFECTIVENESS OF INSECTICIDES AS SEED TREATMENT AGAINST YELLOW STEM BORER (*Scirpophaga incertulas(walker)*)' under the guidance of Dr.K.Karthikeyan from January 2024 to April 2024. Her work was found to be satisfactory.

(DR. K KARTHIKEYAN)

**Dr. K. KARTHIKEYAN**  
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A PROJECT REPORT ENTITLED  
**ISOLATION, SCREENING AND MOLECULAR  
CHARACTERIZATION OF BIODEGRADABLE PLASTIC,  
POLYHYDROXYBUTYRATE (PHB) PRODUCING BACTERIAL  
ISOLATES FROM SOIL**

*Dissertation submitted to the University of Calicut for the partial  
Fulfillment of the requirement for the award of degree of*  
**MASTER OF SCIENCE IN ZOOLOGY**



Submitted by

**LINSHIDA**

**Reg. no: KVAWMZL009**

Under guidance of

**Mrs. RASHEEDA M**

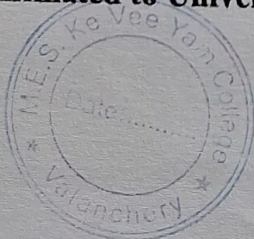
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**MES KEVEEYAM COLLEGE VALANCHERY, KERALA, INDIA 2024**

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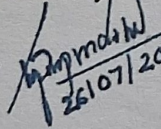
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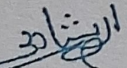
This is to certify that the dissertation entitled "ISOLATION, SCREENING AND MOLECULAR CHARACTERIZATION OF BIODEGRADABLE PLASTIC, POLYHYDROXYBUTYRATE (PHB) PRODUCING BACTERIAL ISOLATES FROM SOIL" is an authentic record of the original research work done by LINSHIDA, Reg. No.: KVAWMZL009, student of M.Sc. Zoology, MES KEVEEYAM College, Valanchery, under my guidance and supervision for the partial fulfillment of the requirement for the award of the Degree of Master of Science in Zoology during the year 2022-2024. This dissertation in full or parts have not been submitted to any other institute or University for the award of any degree or diploma. Further it is certified that this dissertation represents an independent work done by the candidate under my supervision.

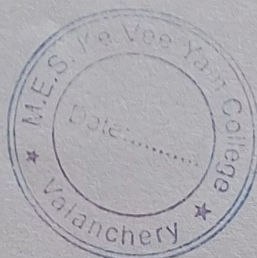
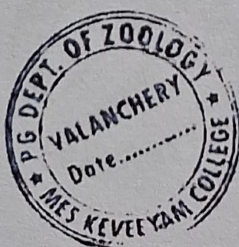
Valued by examiners

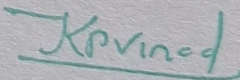
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Mrs. RASHEEDA M  
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
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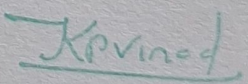


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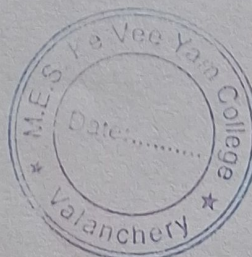
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Valanchery  
June 2024

  
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Post Graduate Department of Zoology  
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31<sup>st</sup> May 2024

**CERTIFICATE**

This is to certify that the dissertation entitled "ISOLATION, SCREENING AND MOLECULAR CHARACTERIZATION OF BIODEGRADABLE PLASTIC, POLYHYDROXYBUTYRATE (PHB) PRODUCING BACTERIAL ISOLATES FROM SOIL" is an authentic record of original research work done by Ms. LINSHIDA (Reg No: KVAWMZL009) student of M.Sc. Zoology, M E S KEVEEYAM College, Valanchery from April – May 2024 under my supervision and guidance in Amplicon Biolabs, KINFRA, Kakkanchery, for the partial fulfillment of the requirement for the award of the Degree of Master of Science in Zoology. This dissertation in full or parts have not been submitted to any other institute or University for the award of any degree or diploma. Further it is certified that this dissertation represents an independent work done by the candidate under my supervision.



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Approval No. PCB/CL/RL/106/2022

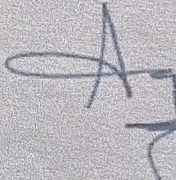


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**KERALA STATE POLLUTION CONTROL BOARD APPROVED LABORATORY**

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A PROJECT REPORT ENTITLED

**EFFICACY OF DIFFERENT SEED TREATMENTS OF  
INSECTICIDES AGAINST RICE LEAF FOLDER  
(*CNAPHALOCROCIS MEDINALIS* (GUENEE))**

*Dissertation submitted to the University of Calicut for the partial  
Fulfillment of the requirement for the award of degree of*

**MASTER OF SCIENCE IN ZOOLOGY**



Submitted by

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Under guidance of

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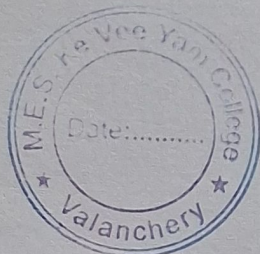
(Assistant Professor)



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Dated: 14-06-2024

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(DR. K KARTHIKEYAN)



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A PROJECT REPORT ENTITLED

**“ASSESSMENT AND IDENTIFICATION OF EGG  
PARASITIDS OF YELLOW STEM BORER (*Scirpophaga  
Incertulas* (Walker))”**

*Dissertation submitted to the University of Calicut for the partial*

*Fulfillment of the requirement for the award of degree of*

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Submitted by

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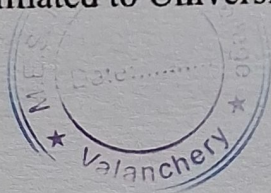
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*A he*

**DR. K KARTHIKEYAN**

**Dr. K. KARTHIKEYAN**  
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**MES KEVEEYAM COLLEGE VALANCHERY, KERALA, INDIA 2024**  
(Affiliated to University of Calicut & NAAC reaccruited with A+ grade)



**CERTIFICATE**

This is to certify that the thesis titled  
**LARVICIDAL ACTIVITY OF SELECTED PLANT EXTRACTS AGAINST**  
***ARMIGERES SUBALBATUS***

Is bonafide work done by

**ARYASURENDRAN M P**  
**Reg.no: KVAWMZL003**

Supervised by

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**Assistant Professor**

**Mrs. RASHEEDA M**  
**( Head of the PG Department of Zoology)**



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A PROJECT REPORT ENTITLED  
**LARVICIDAL ACTIVITY OF SELECTED PLANT EXTRACTS  
AGAINST *ARMIGERES SUBALBATUS***

Dissertation Submitted to the University of Calicut for the partial fulfilment  
of the requirement for the award of degree of

**MASTER OF SCIENCE IN ZOOLOGY**



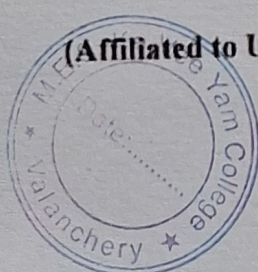
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**ARYA SURENDRAN MP**  
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A PROJECT REPORT ENTITLED  
**STUDIES ON NATURAL CONTROL OF SIAM WEED,  
*CHROMOLAENA ODORATA* (L.) KING AND ROBINSON  
BY *CECIDOCHARES CONNEXA* (MACQUART)  
(DIPTERA: TEPHRITIDAE)**

*Dissertation submitted to the University of Calicut for the partial*

*Fulfillment of the requirement for the award of degree of*

**MASTER OF SCIENCE IN ZOOLOGY**



Submitted by

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Under guidance of

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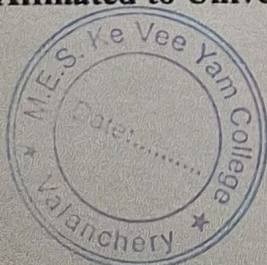
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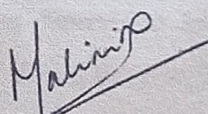
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**Assistant Professor (Entomology)**  
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A PROJECT REPORT ENTITLED

**PHYTOCHEMICAL SCREENING AND LARVICIDAL  
EFFICACY OF METHANOLIC EXTRACTS OF *MERREMIA  
VITIFOLIA* (BURM. F.) HALL. F. LEAVES WITH SPECIAL  
REFERENCE TO THE INHIBITORY ACTIVITY OF  
DETOXIFYING ENZYMES IN *AEDES AEGYPTI* L.**

Dissertation submitted to the University of Calicut in partial  
fulfilment of the requirement for the award of  
**MASTER OF SCIENCE DEGREE IN ZOOLOGY**



Submitted by  
**ANJALI. P**  
(KVAWMZL001)

Under the guidance of  
**VICHITHRA K**  
Assistant professor



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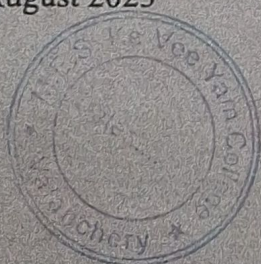
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**CERTIFICATE**

This is to certify that the dissertation entitled “**PHYTOCHEMICAL SCREENING AND LARVICIDAL EFFICACY OF METHANOLIC EXTRACTS OF *MERREMIA VITIFOLIA* (BURM. F.) HALL. F. LEAVES WITH SPECIAL REFERENCE TO THE INHIBITORY ACTIVITY OF DETOXIFYING ENZYMES IN *AEDES AEGYPTI* L.**” is a bonafide record of the dissertation work carried out by **ANJALI. P.**, (Reg No. **KVAWMZL001**), student of **M.Sc. Zoology**, **MES KEVEEYAM College, Valanchery**, University of Calicut, under the guidance of **Dr. E Pushpalatha**, Professor, Department of Zoology, University of Calicut for the partial fulfilment of Master of Science Degree in Zoology during the year 2021-2023. No part of this work has been submitted previously for the award of any other degree of any other University or Institution.

University of Calicut  
August 2023



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**Dr. E. Pushpalatha, Ph.D.**  
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A PROJECT REPORT ENTITLED

**CHEMICAL COMPOSITION, ANTIOXIDANT ACTIVITIES AND  
FUMIGATION EFFICACY AGAINST *SITOPHILUS ORYZAE* OF  
*ARTEMISIA NILAGIRICA* LEAF ESSENTIAL OIL**

Dissertation Submitted to the University of Calicut for the partial  
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Submitted by

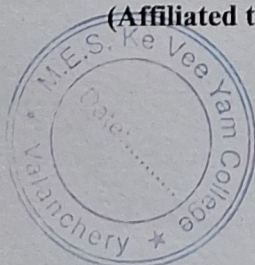
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Under the guidance of  
**Mrs. RASHEEDA. M**  
**Assistant Professor**



**POST GRADUATE DEPARTMENT OF ZOOLOGY**  
**MES KEVEEYAM COLLEGE VALANCHERY, KERALA, INDIA 2024**

(Affiliated to University of Calicut & NAAC recredited with A+ grade)



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**CERTIFICATE**

This is to certify that the thesis titled

**CHEMICAL COMPOSITION, ANTIOXIDANT ACTIVITIES AND  
FUMIGATION EFFICACY AGAINST *SITOPHILUS ORYZAE* OF  
*ARTEMISIA NILAGIRICA* LEAF ESSENTIAL OIL**

Is bonafide work done by

**NOORJAHAN. K**

**Reg.no: KVAWMZL011**

Supervised by

**Mrs. RASHEEDA. M**

**Assistant Professor**

**(Head of the PG Department of Zoology)**



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This is to certify that the work entitled "CHEMICAL COMPOSITION, ANTIOXIDANT ACTIVITIES AND FUMIGATION EFFICACY AGAINST *SITOPHILUS ORYZAE* OF *ARTEMISIA NILGIRICA* LEAF ESSENTIAL OIL" is an authentic record of the research work carried out by NOORJAHAN . K (KVAMWZL011) under my guidance and supervision. She has completed all the assigned work in time and I have verified the same.

I also certify that the work done has not previously published or submitted for the award of any diploma, degree or fellowship.

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A PROJECT REPORT ENTITLED

**CHEMICAL COMPOSITION, ANTIOXIDANT, ANTI-  
INFLAMMATORY ACTIVITIES AND PESTICIDAL PROPERTY  
AGAINST *SITOPHILUS ORYZAE* OF *ZANTHOXYLUM RHETSA*  
POD ESSENTIAL OIL**

Dissertation submitted to the University of Calicut



for the partial Fulfillment of the requirement for the award of  
**MASTER OF SCIENCE IN ZOOLOGY**

Submitted by

**SHADHA FATHIMA**

**Reg. no: KVAMWZL014**

Under guidance of

**Mrs. VICHITHRA K**

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**2022-2024**

(Affiliated to University of Calicut & NAAC reaccredited with 'A+' grade)



**CERTIFICATE**

*This is to certify that the thesis titled*

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ACTIVITIES AND PESTICIDAL PROPERTY AGAINST SITOPHILUS ORYZAE  
OF ZANTHOXYLUM RHETSA POD ESSENTIAL OIL"**

*is a bonafide work done by*

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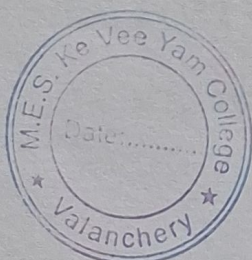
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This is to certify that the work entitled "**CHEMICAL COMPOSITION, ANTIOXIDANT, ANTI-INFLAMMATORY ACTIVITIES AND PESTICIDAL PROPERTY AGAINST *SITOPHILUS ORYZAE* OF *ZANTHOXYLUM RHETSA* POD ESSENTIAL OIL**" is an authentic record of the research work carried out by **SHADHA FATHIMA (KVAMWZL014)** under my guidance and supervision. She has completed all the assigned work in time and I have verified the same.

I also certify that the work done has not previously published or submitted for the award of any diploma, degree or fellowship.

**Dr. Arunaksharan N.**  
(Assistant Professor & Research Guide)



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A PROJECT REPORT ENTITLED

**EFFECT OF DIFFERENT ORGANIC WASTES ON THE GROWTH AND  
DEVELOPMENT EPIGEIC EARTHWORM *EUDRILUS EUGENIAE***

*Dissertation Submitted to the University of Calicut for the partial fulfillment of  
the requirement for the award of degree of*

**MASTERS OF SCIENCE IN ZOOLOGY**



Submitted by

**MUHSINA. K.V**

**Reg No. KVAWMZL010**

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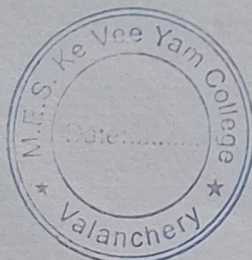
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A PROJECT REPORT ENTITLED  
**A STUDY ON ORTHOPTERA DIVERSITY OF  
SELECTED AREAS OF PANG, MALAPPURAM,  
KERALA**

Dissertation submitted to the University of Calicut for the partial  
Fulfillment of the requirement for the award of  
**MASTER OF SCIENCE IN ZOOLOGY**



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**2024**

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A PROJECT REPORT ENTITLED  
**"STUDY ON MOTH DIVERSITY AT KUTTIKALATHANI  
IN PUTHANATHANI, MALAPPURAM DISTRICT, KERALA"**

*Dissertation submitted to the University of Calicut for the partial*

*Fulfillment of the requirement for the award of degree of*

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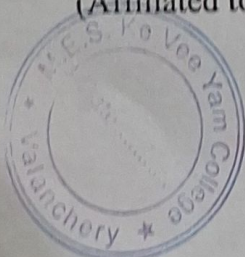
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