

**GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)****KUMBAKONAM – 612 001***Affiliated to Bharathidasan University***DST - CURIE Sponsored Institution****IV Cycle of Accreditation**

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**RESEARCH PROJECT DETAILS**  
**DEPARTMENT OF ZOOLOGY- 2018-2019**

| SL.No | ROLL NUMBER | NAME              | DETAILS OF ACTIVITY   |
|-------|-------------|-------------------|---|
| 1     | P17ZO001    | A. ABINAYASUNDARI | ISOLATION, PURIFICATION AND CHARACTERIZATION OF CHITIN FROM MARINE LONG - EYED SWIMMING CRABPODOPHTHALMUS UIGIL, FABRICIUS 1798.                        |
| 2     | P17ZO002    | M. AKILA          | EFFECT OF COFFEE AND TEA GROUND WASTE ON EARTHWORM BIOMASS, PHYSICO- CHEMICAL PROPERTIES OF VERMICOMPOST AND PLANT GROWTH                               |
| 3     | P17ZO003    | D. AKILANDESHWARI | LOW COST AND ECOFRIENDLY EVOLUTION OF SMILAX ZEYLANICA L. (FAMILY: SMILACACEAE) EXTRACT AGAINST THE DENQUE VECTOR AEDES AEGYPTI L. (DIPTERA, CULICIDAE) |
| 4     | P17ZO004    | J. CHANDRALEKA    | STUDIES ON THE SILVER POMFRET, POMPUS ARGENTEUS (EUPHRASEN 1788), NAGAPATTINAM, SOUTH EAST COAST OF INDIA.  |
| 5     | P17ZO005    | R. DEVIKA         | EFFECT OF MERCURIC CHLORIDE AND THE INFLUENCE BIOENZYMOLOGICAL STUDIES ON FISH LABIO ROHITA (HAM.)  |
| 6     | P17ZO007    | M. MANJULA        | EVOLUTION OF ANTIMICROBIAL ACTIVITY OF COW URINE WITH NEEM (AZADIRACHTA INDICA) EXTRACT ON PATHOGENIC FISH MICROBIAL STRAINS                            |
| 7     | P17ZO008    | S. MYTHILI        | STUDIES ON THE ROHU FISH, LABEO ROHITA (HAMILTON, 1822) FROM FISH FORM, SWAMIMALAI, THANJAVUR DISTRICT.   |
| 8     | P17ZO009    | M. PRIYA          | EFFECT OF DURATION OF EXPOSURE FOR GIRCUD TREATMENT ON THE COPEPOD POPULATION DENSITY   |
| 9     | P17ZO010    | K. SATHYABAMA     | STUDIES ON SPECIES DISTRIBUTION AND DIVERSITY OF EARTHWOARM IN MATHAMPETTAI PALUR VILLAGE, ARIYALUR DISTRICT, TAMIL NADU                                |
| 10    | P17ZO011    | G. SHAMINI        | COMPARATIVE STUDIES OF ANTIBACTERIAL ACTIVITY OF ARGANIC TURMERIC AND AACHI TURMERIC AGAINST SELECTED FISH PATHOGENS                                    |
| 11    | P17ZO012    | S. SITA           | ANTIBACTERIAL ACTIVITY OF SELECTED HERBAL AZADIRATA INDICA AND MELIA AZEDARACH AGAINST FISH PATHOGEN  |
| 12    | P17ZO013    | S. SOWNDARYA      | IMPACT OF KUMBAKONAM AYE KULAM LAKE WATER ON BIOCHEMICAL CHANGES OF FRESH WATER FISH LABEO ROHITA   |
| 13    | P17ZO014    | V. SUBHASRI       | EFFECT OF DIFFERENT CONCENTRATION OF GIR CUD ON ENHANCING THE COPEPOD POPULATION DENSITY  |

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| 14 | P17ZO015 | S. SUGANYA       | STUDIES ON LENGTH WEIGHT RELATIONSHIP OF GROW OUT AND COOSE SHELL AFFECTED CITOPENAEUS VANNAMEI LOW SALINITY WATER FROM TAMIL NADU, INDIA.                               |
| 15 | P17ZO016 | P. VIJAYALAKSHMI | STUDIES IN BIOCHEMICAL COMPOSITIONS OF EARTHWORM LAMPITO MARUITII IN KUMBAKONAM REGION TAMIL NADU.   |
| 16 | P17ZO017 | P. VIJAYALAKSHMI | GROWTH PROMOTING EFFECT OF COW URINE WITH OCCIMUM SANCTUM OF DIFFERENT BREADS OF LABEO ROHITA  |
| 17 | P17ZO018 | B. VIJITHA       | CULTURE OF EPIGENIC EARTHWORM EISENIA FETIDA UNDER GREENGRAM WASTES AND EFFECTS OF GREENGRAM VERMICOMPOST ON THE GROWTH AND YIELD OF OKRA PLANT (ABELMOSCHUS ESCULENTUS) |



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**RESEARCH PROJECT DETAILS**  
**DEPARTMENT OF ZOOLOGY- 2019-2020**

| SL.No | ROLL NUMBER | NAME             | DETAILS OF ACTIVITY   |
|-------|-------------|------------------|---|
| 1     | P18ZO001    | B. AARTHI        | HEMATOLOGICAL STUDIES OF FRESHWATER FISH LABEO ROHITA (HAMILTON) EXPOSED TO DIFFERENT MEDIAN LETHAL CONCENTRATION OF MERCURIC CHLORIDE        |
| 2     | P18ZO002    | P. AKILA         | STUDIES ON MACROBENTHIC FORM DISTRIBUTION IN VAILANKANNI COASTAL WATER, SOUTHEAST COASTAL OF INDIA  |
| 3     | P18ZO003    | K. ELAKKIYA      | BIOGENIC FABRICATION AND CHARACTERIZATION OF SILVER NANOPARTICLES USING OXALIS DEBILIS (OXALIDACEAE) AGAINST MOSQUITO VECTORS                 |
| 4     | P18ZO004    | B. JAYAPRIYA     | STUDIES ON THE BIODIVERSITY OF FRESH WATER FISHES FROM LOWER ANAIKARAI DAM, TAMIL NADI, INDIA   |
| 5     | P18ZO005    | M. KAVIYA        | INVITRO EVOLUTION OF ANTIOXIDENT PROPERTIES OF COLLAGEN FROM MARINE FISH, RED BANDED SANPPER (LUTJANUS ARGENTIMACULATUS)                      |
| 6     | P18ZO006    | B. MEENA         | EFFECT OF COW URINE AND ITS COMBINATION WITH NEEM EXTRACT ON ANTIBACTERIAL ACTIVITIES AGAINST FISH PATHOGENS                                  |
| 7     | P18ZO007    | G. NILA          | HEALTHY STATUS OF NARIKURAVAS COMMUNITY ( WOMEN & GIRL CHILD) IN EZHUMAANTHIDAL VILLAGE IN TAMIL NADU   |
| 8     | P18ZO008    | S. NISHA         | STUDIES ON THE FLYING FISH EXOCOETUS VOLITANS LINNAEUS NAGAPATTINUM SOUTHEAST COAST OF INDIA  |
| 9     | P18ZO009    | R. PRAVEENA      | OPTIMIZATION OF HEMOCYTES LYSATE SEPARATION FRESH WATER COPEPODES   |
| 10    | P18ZO010    | N. PRIYA         | STUDIES ON THE ENVIRONMENTAL INFLUENCE WITH FORAMINIFERAN SPECIES DISTRIBUTION IN KODIYAKARAI COASTAL WATER, SOUTHEAST COAST OF INDIA         |
| 11    | P18ZO011    | S. PRIYANKA      | COMPARATIVE STUDY ON AVIFAUNAL DIVERSITY AND AROUND KUMBAKONAM, THANJAVUR DISTRICT, TAMIL NADU, INDIA   |
| 12    | P18ZO012    | M. RENUGA        | TOXICITY EFFECT OF NOMINEE GOLD ON BIOMASS AND REPRODUCTIVITY ABILITY OF INDIAN EARTHWARM, LAMTITO MAURITII (KINBERG) (ANNELIDA: OLIGOTHAETA) |
| 13    | P18ZO013    | S. RENUKA DEVI   | MOSQUITO LARVICIDAL POTENTIAL OF OXALIS CORNICULATA L. EXTRACT AGAINST THE DENQUE VECTOR AEDES AGYPTI L. ( DIPTERA : CULICIDAE)               |
| 14    | P18ZO014    | S. ROOPANANDHINI | CALL BACK SPARROW FOR CONSERVATION IN AND AROUND KUMBAKONAM, THANJAVUR DISTRICT, TAMIL NADU, INDIA  |

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| 15 | P18ZO015 | A SARANYA        | MONOCROTOPHOS INDUCED BIOCHEMICAL ALTERATION IN THE INDIAN MAJOR CRAP LABEO ROHITA             |
| 16 | P18ZO016 | J. SUGANYA       | ISOLATION AND PARTIAL CHARACTERIZATION OF COLLAGEN FROM FRESH WATER FISH SCALES, LABEO ROHITA. |
| 17 | P18ZO017 | S. VIJAYALAKSHMI | EFFECT OF VERMICOMPOST ON THE GROWTH AND YELID OF BRINJAL PLANT                                |



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**RESEARCH PROJECT DETAILS**  
**DEPARTMENT OF ZOOLOGY- 2020-2021**

| SL.No | ROLL NUMBER | NAME             | DETAILS OF ACTIVITY   |
|-------|-------------|------------------|---|
| 1     | P19ZO001    | E. ARULNISHA     | ACUTE TOXICITY AND BACTERIAL POPULATION STUDY OF PRETILACHLOR ON INDIAN EARTHWORM, LAMPITO MAURITII (KINBERG) (ANNELIDA: OLIGOCHETA)              |
| 2     | P19ZO002    | R. ATCHAYA       | STUDIES ON PROXIMATE COMPOSITION OF MUSCLE, INTESTINE, AND HEPATOPANCREAS IN SHRIMP, PENAEUS MONODON (FABRICIUS, 1798)                            |
| 3     | P19ZO003    | A. BASIL FRANKO  | VERMICOMPOST OF TEAK LEAVES USING AN INDIAN EARTHWORM LAMPITO MAURITII (KINBERG) (ANNELIDA: OLIGOCHETA)   |
| 4     | P19ZO004    | S. BHUVANESWARI  | PREVALENCE OF TYPE 2 DIABETES MELLITUS IN THE OUTSKIRTS OF KUMBAKONAM, TAMIL NADU   |
| 5     | P19ZO005    | R. DAYANA        | STUDY ON BIODIVERSITY OF FUNNA OBSERVED FROM COLLEGE CAMPUS OF GOVERNMENT COLLEGE FOR WOMEN (A) KUMBAKONAM, THANJAVUR DISTRICT, TAMIL NADU, INDIA |
| 6     | P19ZO006    | V. DURGADEVI     | A CASE STUDY ON BIRD ABUNDANCE OF AGRO ECOSYSTEM IN PUDHUPADAIYUR VILLAGE, THANJAVUR DISTRICT, TAMIL NADU   |
| 7     | P19ZO007    | V. GIRIJA        | GREEN SYNTHESIS AND CHARACTERIZATION OF SILVER NANOPARTICLES USING CAPPARIS ZEYLANICA AGAINST DENGUE VECTOR AEDES ALBOPICTUS                      |
| 8     | P19ZO008    | S. GOWRI         | LARVICIDAL ACTIVITY OF CROTON BONPLANDIANUS BAILL. (EUPHORBIACEAE) LEAF EXTRACTS ON THE MALARIA VECTOR ANOPHELES SUBPICTUS (DIPTERA:CULICIDAE)    |
| 9     | P19ZO009    | J. JOHN MECIYA   | EFFECT OF ZnO/ SiO <sub>2</sub> NANOCOMPOSITE AGAINST AEDES AEGYPTI MOSQUITO VECTOR   |
| 10    | P19ZO010    | J. JOHN STEPHINA | STUDIES ON DECOLORISATION OF WASTE USING OCTIMUM TENUIFLORUM AND HEMIDESMUS INDICUS ACTIVATED CARBON  |
| 11    | P19ZO011    | D. NITHYA        | AMPHIBIANS ABUNDANCE IN WATER BODIES OF THIRUCHIRAI VILLAGE, THANJAVUR DISTRICT, TAMIL NADU   |
| 12    | P19ZO012    | D. PAVITHRA      | PREVALENCE OF DIABETES MELLITUS IN THE URBON POPULATION OF KUMBAKONAM, TAMIL NADU   |
| 13    | P19ZO013    | V. ROJAMARY      | STUDIES ON BIOCHEMICAL PROPERTIES OF MUSCLE, LIVER AND KIDNEY IN FINFISH, MUGIL CEPHALUS (LINNAEUS, 1758)   |

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| 14 | P19ZO014 | B. SAVITHIRI   | EFFECT OF DIFFERENT TEA POWDER WASTE MEDIA ON THE GROWTH AND COCOON PRODUCTION OF EISENIA FETIDA  |
| 15 | P19ZO015 | R. SENTHOORIYA | EFFECT OF MERCURIC CHLORIDE ON BLOOD COMPONENTS OF FRESH WATER FISH LABIO ROHITA (HAM.)   |
| 16 | P19ZO016 | R. SINDHUJA    | STUDIES ON THE GREEN SYNTHESIS OF Mg DOPED ZnS NANOPARTICLES ON FRESH WATER FISH OREOCHROMIS MOSSAMBICUS  |
| 17 | P19ZO017 | G. SOFIKA      | MOSQUITO LARVICIDAL ACTIVITY OF AROMATIC GINGER KAEMPFERIA GALANGAL L. (ZINGIBERACEAE) ESSENTIAL OIL AGAINST FILARIASIS VECTOR CULEX QUINQUEFASCIATUS (DIPTERIA: CULICIDAE) |
| 18 | P19ZO018 | V. SUGANYA     | EFFECT OF POPULATION DENSITY ON GROWTH, REPRODUCTION, SURVIVAL AND BIOCHEMICAL COMPOSITION OF THE FRESH WATER DIAPHNASOMA BRACHYURUM (KOROVCHINSKY N.M)                     |
| 19 | P19ZO019 | S. VARSHA      | EFFECT OF DIFFERENT MANGIFERA INDICA LEAVES MEDIA ON THE GROWTH AND COCOON PRODUCTION OF DUDRILUS EUGENIAE  |
| 20 | P19ZO020 | S. YUVARANI    | TOXIC EFFECT OF INSECTICIDE, PROFENOFOS ON THE BIOMASS OF AN INDIAN EARTHWARM, LAMPITO MAURITII (KINBERG) (ANNELIDA: OLIGOCHAETA)   |



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|-------|-------------|-----------------|---|
| 1     | P20ZO001    | R. AKILA        | COMPARATIVE STUDY ON BIRDS ABUNDANCE OF VARIOUS ECOSYSTEM   |
| 2     | P20ZO002    | S.ANNAPOORANI   | LARVICIDAL EFFECTS OF CALENDULA OFFICINALIS (ASTERACEAE) LEAF EXTRACTS ON THE MALARIA VECTOR ANOPHELES STEPHENSI (DIPTERA:CULICIDAE)                                  |
| 3     | P20ZO003    | K. ATCHAYA      | A STUDY ON THE GROWTH AND COCOON PRODUCTION OF EUDRILUS EUGENIAE CULTURED IN DIFFERENT THESPIA POPULNEA LEAVES WASTE MEDIA  |
| 4     | P20ZO004    | S. DIVYAJOTHI   | PREVALENCE OF DIABETIC MELLITUS IN KODAVASAL TOWN AND ANTIDIABETIC EFFECT OF WHITE FLOWERS OF CATHARANTHUS ROSEUS THROUGH TRADITIONAL METHOD OF DECOCTION CONSUMPTION |
| 5     | P20ZO005    | R. GUNAVATHI    | A COMPARATIVE STUDY ON POPULATION DENSITY OF BLACK KITE (MILVUS MIGRANS) AND BRAHMINY KITE (HACIASTUR INDUS) IN DIFFERENT HABITAT AT TAMIL NADU, INDIA                |
| 6     | P20ZO006    | N.HARIPRIYA     | BIO SYNTHESIS AND CHARACTERIZATION OF IORN OXIDE NANOPARTICLE USING HELIANTHUS ANNUUS SEEDS AND ANALYSIS OF THEIR ANTIFUNGAL ACTIVITY                                 |
| 7     | P20ZO007    | K.JASMINE BEGAM | STUDIES ON LENGTH WEIGHT RELATIONSHIP OF CRAB, PORTUNUS SANGUINOLENTUS (HERBST, 1783), IN NAGAPATTINAM COASTAL WATERS SOUTHEAST COAST OF INDIA.                       |
| 8     | P20ZO008    | T. KEERTHI      | STUDIES ON LENGTH WEIGHT RELATIONSHIP OF FISH, SILLAGO SEHAMA (FORSSKAL, 1775) IN NAGAPATTINAM COASTAL WATERS, SOUTHEAST COAST OF INDIA                               |
| 9     | P20ZO009    | R.KIRUTHIGA     | ROLE OF LEAF EXTRACT OF CARICA PAPAYA (LINN.) AGAINST MERCURIC CHLORIDE INDUCED NEPHROTOXICITY IN FRESH WATER FISH LABEO ROHITA (HAMILTON)                            |
| 10    | P20ZO010    | K.LAVANYA       | HELIANTHUS ANNUUS SEEDS EXTRACT ASSISTED BIO SYNTHESIS OF IRON NANOPARTICLES CHARACTERISATION AND ANTIBACTERIAL STUDY   |
| 11    | P20ZO011    | K.MONIKA        | EFFICACY OF MATRICARIA CHAMOMILLA (ASTERACEAE) ESSENTIAL OIL AGAINST FILARIASIS VECTOR CULEX QUINQUE FASCIATUS (DIPTERAL: CULICIDAE)                                  |
| 12    | P20ZO012    | J.MONISHA       | TOXIC EFFECT OF THIACLOPRID ON DIGESTIVE ENZYMES OF, LAMPITO MAURITII (KINBERG) GUT AND NUTRITIVE VALUE OF VERMICOMPOST (ANNELIDA: OIOCHAETA)                         |

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| 13 | P20ZO013 | T. MONISHA       | THE UTILIZATION OF ASYSTASIA GANGETICA IN GREEN SYNTHESIS OF SILVER NANOPARTICLES TO COMBAT THE DENGUE VECTOR AEDEAS ALBOPICTUS  |
| 14 | P20ZO014 | S.NARMATHA       | BACTERIAL DIVERSITY IN THE GUT OF EARTHWORMS DISSIMILAR KINDS OF SOIL  |
| 15 | P20ZO015 | P.PAVITHRA       | HEMATOLOGICAL STUDIES OF THE FRESHWATER ZOOPLANKTON MACROCYCLOPS EDAX  |
| 16 | P20ZO016 | K.PUJITHA        | PREVALENCE OF DIABETIC MELLITUS IN KOOTHANALLUR TOWN AND ANTIDIABETIC EFFECT OF JAMUN (SYZGIUM CUMINI) SEED POWDER THROUGH TRADITIONAL METHOD RANTHUS ROSEUS THROUGH TRADITIONAL METHOD OF DECOCTION CONSUMPTION |
| 17 | P20ZO017 | R.RAJALAKSHMI    | ANTIBACTERIAL PROPERTIES OF CHANNA STRIATUS MUCUS STRABILIZED IORN OXIDE NANOPARTICLES AGAINST FRESHWATER PATHOGENS  |
| 18 | P20ZO018 | R.R.RAJESHWARI   | A STUDY ON THE GROWTH AND COCOON PRODUCTION OF EISENIA FETIDA CULTURED IN DIFFERENT BANANA LEAVES WASTE MEDIA  |
| 19 | P20ZO019 | R.R.RAMYA        | VERMICOMPOST OF BANANA LEAVES USING AN INDIAN EARTHWORM LAMPITO MAURITII (KINBERG) (ANNELIDA: OLIGOCHETA)  |
| 20 | P20ZO020 | R.SHANUMUGAPRIYA | ANTIBACTERIAL ACTIVITY OF PILA GLOBOSA MUCUS STABILIZED IRON OXIDE NANOPARTICALS AGAINST FRESH WATER PATHOGENS   |
| 21 | P20ZO021 | K.SUBASHINI      | HEMATOLOGICAL STUDIES OF THE FRESHWATER ZOOPLANKTON THERMOCYCLOPS HYALINUS   |
| 22 | P20ZO022 | S.SUVETHA        | STUDIEDS ON LENGTH AND WEIGHT RELATIONSHIP OF WHITE SHRIMP,PENAEUS INDICUS (H. MILNE, EDWARD,1837) IN NAGAPATTINAM COASTAL WATERS, SOUTHEST COAST OF INDIA   |
| 23 | P20ZO023 | V.VANISRI        | COMPARTIVE OF BIOACTIVITY OF TRIGONELLA FORNUM ADHELIANTHUS ANNUUS SPROUTS GROWN BY AQUAPONICS   |
| 24 | P20ZO024 | M.VINOTHINI      | TOXICITY OF THIACTLOPRID (INSECTICIDE) ON BIOMASS, BACTERIAL AND FUNGAL POPULATION OF AN INDIAN EARTHWORM, LAMPITO MAURITII (KINBERG) (ANNELIDA; OLIGOCHAETA)  |
| 25 | P20ZO025 | S. VINOTHINI     | INFLUENCE OF LEAF EXTRACT OF CARICA PAPYA (LINN.) AGAINST MERCURIC CHLORIDE INDUCED TOXICITY IN LIVER TISSUE OF FRESH WATER FISH LABEO ROHITA(HAMILTON)  |



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| SL.No | ROLL NUMBER | NAME                 | DETAILS OF ACTIVITY  |
|-------|-------------|----------------------|--|
| 1     | P21ZO001    | AARTHY. K            | STUDY OF BIOMASS ENZYME ACTIVITY OF LAMPITO MARURITII KINDERGARTEN DURING VERMICOMPOSTING OF COUROPITA GUIANESISUSING LEAVES (ANNELIDA:OLIGOCHETA) |
| 2     | P21ZO002    | ABINA. B             | EFFECT OF DIFFERENT TERMINALIA CATAPPA LEAVES MEDIA ON THE GROWTH AND COCOON PRODUCTION OF EUDRILUS EUGENIAE                                       |
| 3     | P21ZO003    | BANUMATHI. P         | STUDIES OF FOOD AND FEEDING HABITS OF INDIAN MACKEREL, RASTRELLIGER KANAGURATA(CUVIER1816), AKKARAIPETTAI COASTAL WATERS, SOUTHEAST COAST OF INDIA |
| 4     | P21ZO004    | BHARATHA PRIYA. S    | BIOSYNTHESIS OF SILVER NANOPARTICLES USING DIGERA MURICATA AGAINST THE DENGUE VECTOR AEDES AEGYPTI   |
| 5     | P21ZO005    | DHARANI. V           | THE COMPARATIVE BIOCHEMICAL ANALYSIS OF UNIFLORAL FRAM HONEY OF HIBISCUS AND TULSA ORIGIN  |
| 6     | P21ZO006    | GAYATHRI. G          | STUDIES OF FOOD AND FEEDING HABITS OF RED SNAPPER LUTJANUS CAMPECHANUS (1860) IN AKKARAIPETTAI COASTAL WATERS, SOUTHEAST COAST OF INDIA TAMIL NADU |
| 7     | P21ZO007    | KARPARATCHAMBIGAI. S | BIOSYNTHESIS OF SILVER NANOPARTICLES USING PUMPKIN SEEDS (CUCURBITA PEPO) EXTRACT ASSISTED ANTIBACTERIAL ACTIVITY AND CHARACTERIZATION             |
| 8     | P21ZO008    | KARTHIKA. N          | BIOSYNTHESIS AND CHARACTERIZATION OF SILVER NANOPARTICLES USING CUCURBITA PEPO SEEDS AND ANALYSIS OF THEIR ANTIFUNGAL ACTIVITY                     |
| 9     | P21ZO009    | KOKILAVANI. K        | EFFICACY OF EDTA AGAIST MERCURIC CHLORIDE INDUCED BEHAVIORAL CHANGES IN THE FRESH WATER FISH LABEO ROHITA (HAMILTON)                               |
| 10    | P21ZO010    | MAHESWARI. V         | EVALUATION OF THE SELECTED PLANTS AND THEIR IMPACTS ON PEST CONTROL (CALLOSOBRUCHUS MACULATUS)   |

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| 11 | P21ZO011 | NITHYA. N      | CULTURE OF EPIGENIC EARTHWORM EISENIA FETIDA UNDER BERMUDA GRASS WASTES AND EFFECTS OF BERMUDA GRASS VERMICOMPOST ON THE GROWTH OF LADYFINGER PLANT           |
| 12 | P21ZO012 | SATHYA. V      | Pollen and biochemical analysis of honey samples  |
| 13 | P21ZO013 | SUBALAKSHMI. R | EFFECTS OF THE SELECTED PLANT POWDERS FOR CONTROLLING STORED GRAIN PEST RICE WEEVIL (SITOPHILUS ORYZAE)   |
| 14 | P21ZO014 | SURYA. K       | EFFECTIVENESS OF GLUTATHIONE AGAINST MERCURIC CHLORIDE INDUCED EFFECT IN FRESH WATER FISH LABEO ROHITA (HAMILTON)   |
| 15 | P21ZO015 | UMA. J         | MOSQUITO LARVICIDAL EFFICACY OF DIGERA MURICATA PLANT EXTRACTS AGAINST ZIKA VIRUS VECTOR AEDES ALBOPICTUS   |
| 16 | P21ZO016 | VANITHA. A     | BIOMASS, MICROBIAL POPULATION AND NUTRIENT ANALYSIS OF VERMICOMPOSTING OF LEAF LITTERS BY USING INDIAN EARTHWORM I. MARURITII (KINBERG) (ANNELIDA:OLIGOCHETA) |



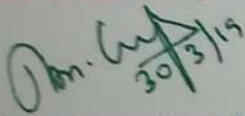
  
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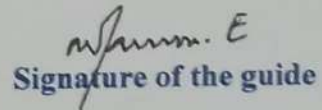


## CERTIFICATE

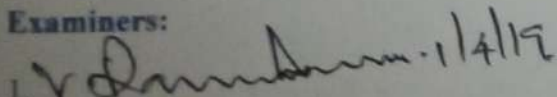
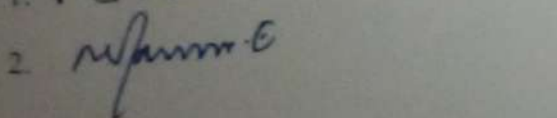
This is to certify that the dissertation entitled "Isolation, Purification and Charecterization of Chitin from Marine Long-Eyed Swimming Crab (*podophthalmus vigil*, fabricius, 1798 off Parangipettai coast, Southeast India " submitted in partial fulfillment of the requirement for the degree of Master of Science in Zoology during the period of **2017-2019** to the Government college for Women (Autonomous), Kumbakonam affiliated to the Bharathidasan University, Thiruchirapalli is a bonafide record of the work carried out by the **A.Abinaya Sundari (Reg.No:PI7ZOOO1)** Under my supervision and guidance.

  
30/3/19

Head of the Department

  
Signature of the guide

Examiners:

1.  1/4/19
2. 

Dr. V.KAVITHA M.Sc., M.Phil., Ph.D

Assistant Professor in Zoology,

Government College for Women (A),

Kumbakonam- 612 001.



## Certificate

This is to certify that the dissertation entitled, ("EFFICIENCY OF COFFEE AND TEA GROUND WASTE ON EARTHWORM BIOMASS, PHYSICO-CHEMICAL PROPERTIES OF VERMICOMPOST AND PLANT GROWTH") submitted by **Mrs. M. AKILA, B.Sc., B.Ed.**, (Reg. No. P17ZO002) in partial fulfillment of the requirements for the award of degree of Master of Science in Zoology during the period of 2018-2019 was done under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

V. Kavitha 30/03/19  
Signature of the Guide

Don. Kavitha 30/3/19  
Signature of the HOD Sc., M. Phil., Ph. D.  
Head & Associate Professor in Zoology  
Government College For Women (A)  
Kumbakonam-612001.

### Examiners

1. V. Kavitha 14/4/19

2. V. Kavitha 1/04/19

Submitted for the viva-voce examination held on 1.04.2019.



**Dr. M. GOVINDARAJAN,**  
M.Sc., M.Phil., Ph.D.,  
**Assistant Professor,**  
Department of Zoology,  
Govt. College for Women (A),  
Kumbakonam - 612001.  
Tamil Nadu, India.  
Email: [drgovind1979@gmail.com](mailto:drgovind1979@gmail.com)  
Cell: 9585265999



## Certificate

This is to certify that the dissertation entitled, "LOW- COST AND ECO-FRIENDLY EVALUATION OF *SMILAX ZEYLANICA* L. (FAMILY: SMILACACEAE) EXTRACTS AGAINST THE DENGUE VECTOR, *AEDES AEGYPTIL*. (DIPTERA: CULICIDAE)" submitted by Miss. D. AKILANDESHWARI (Reg. No. P17ZO003) in partial fulfillment of the requirements for the award of degree of Master of Science in Zoology during the period of 2018-2019 under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

*Dr. S. Venkatalakshmi*  
30/3/19

**Signature of the HOD**  
**Dr.S.Venkatalakshmi.M.Sc.,M.Phil.,Ph.D.**  
Head & Associate Professor in Zoology  
Government College For Woman (A)  
Kumbakonam-612001.

*M. Govindarajan*  
29.03.19

**Signature of the Guide**  
**Dr.M.GOVINDARAJAN,**  
M.Sc., M.Phil., Ph.D.,  
Assistant Professor of Zoology,  
Government College for Women (A),  
Kumbakonam-612001,  
Tamilnadu,India.

Submitted for the via-voce examination held on 1.4.2019

*M. Govindarajan*  
01/04/2019  
**Internal Examiner**

*Dr. S. Venkatalakshmi*  
11/4/19  
**External Examiner**

**Dr. A.V. KAVITHA** M.Sc., M.Phil., Ph.D.,

Assistant Professor

Department of Zoology



Government College for Women (A)

Kumbakonam – 612 001 ,

Thanjavur (dt)

### CERTIFICATE

This is to certify that the project work was done under my guidance and dissertation entitled **EFFECT OF MERCURIC CHLORIDE AND THE INFLUENCE OF *Ocimum Sanctum* IN BIOENZYMOLOGICAL STUDIES ON FISH *Labeo rohita* (HAM.)** Submitted by Miss **R. DEVIKA** ( Reg.No. P17ZO005) in partial fulfillment of the requirements of the M.Sc., Degree Course for the academic period 2018-2019 in the subject of Zoology is the original work of the candidate.

*Dr. S. Venkatalakshmi*  
01/04/19

**Signature of the HOD**

*A.V. Kavitha*  
30/3/19

**Signature of the Guide**

**Dr. S. Venkatalakshmi, M.Sc., M. Phil., Ph.D.**  
**Head & Associate Professor in Zoology**  
**Government College For Woman (A)**  
**Kumbakonam-612001.**

**Dr. A.V. KAVITHA, M.Sc., M.Phil., Ph.D.,**  
Assistant Professor  
Department of Zoology  
Government College for Women  
Kumbakonam - 612 001.

**Examiner**

1. *S. Venkatalakshmi* 14/1/19

2. *A.V. Kavitha* 01/04/19



**GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS),  
KUMBAKONAM – 612 001**

**Dr. V. RAVI** M.Sc., M.Phil., Ph.D  
Assistant Professor,  
PG & Research Department of Zoology

Date: 01.04.2019

**CERTIFICATE**

This is to certify that the project was done under my guidance and the dissertation entitled '**STUDIES ON THE SILVER POMFRET, *PAMPUS ARGENTEUS* (EUPHRASEN 1788), NAGAPATTINAM, SOUTHEAST COAST OF INDIA**' submitted by **J.Chandraleka (P17ZO004)** in partial fulfillment of the requirement of the **M.Sc., Degree** course for the academic period **2017 – 2019** in the subject Zoology is a critical study by the candidate.

*Ami. Ravi*  
01.04.19

Signature  
of the Head of the Department

*Ravi*

Signature  
of the Research Guide  
(V. RAVI)

Examiner

1. *[Signature]*

2. *[Signature]*



Miss. J. Ananthi, M.Sc., M.Phil.,  
Guest Lecturer,  
Department of Zoology,  
Govt. College for Women (A),  
Kumbakonam - 612001,  
Tamil Nadu,  
India.



## Certificate

This is to certify that the dissertation entitled, "EVALUATION OF ANTIMICROBIAL ACTIVITY OF COW URINE WITH NEEM (*Azadirachta indica*) EXTRACT ON PATHOGENIC FISH MICROBIAL STRAINS" submitted by **Miss. M. MANJULA (Reg. No. P17ZO007)** in partial fulfillment of the requirements for the award of degree of Master of Science in Zoology during the period of 2018-2019 was done under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

*J. Ananthi*  
30/3/19

Signature of the Guide

*Dr. S. Venkatalakshmi*  
30/3/19

Signature of the HOD

**Dr. S. Venkatalakshmi, M.Sc., M.Phil., Ph.D.**  
Head & Associate Professor in Zoology  
Government College For Women (A)  
- Kumbakonam-612001.

Examiners

1. *V. Ramakrishna* - 10/4/19.

2. *J. Ananthi* - 01.4.19

Submitted for the viva-voce examination held on 1.4.2019





GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)

KUMBAKONAM – 612 001

Dr. V. RAVI M.Sc., M.Phil., Ph.D  
Assistant Professor, Department of Zoology

Date: 01.04.2019

CERTIFICATE

This is to certify that the project was done under my guidance and the dissertation entitled 'STUDIES ON THE ROHU FISH, *LABEO ROHITA* (HAMILTON, 1822) FROM FISH FARM, SWAMIMALAI, THANJAVUR DISTRICT' submitted by S. MYTHILI (P17ZO009) in partial fulfillment of the requirement of the M.Sc., Degree course for the academic period 2017 – 2019 in the subject Zoology is a critical study by the candidate.

Signature  
of the Head of the Department  
Dr. Venkatalakshmi M.Sc., M.Phil., Ph.D.  
Head & Associate Professor in Zoology  
Government College For Woman (A)  
Kumbakonam-612001.

Signature  
of the Research Guide  
(V. RAVI)

Examiner

1. V. Ravi
2. [Signature]

Dr. S. Venkatalakshmi, M.Sc., M.Phil., Ph.D.,  
Head & Associate Professor,  
Controller of the Examination,  
Department of Zoology,  
Govt. College for Women (A),  
Kumbakonam - 612001,  
Tamil Nadu,  
India.



## Certificate

This is to certify that the dissertation entitled, **"EFFECT OF DURATION OF EXPOSURE FOR GIR CUD TREATMENT ON THE COPEPOD POPULATION DENSTIY"** submitted by Miss. M. PRIYA (Reg. No. P17ZO011) in partial fulfillment of the requirements for the award of degree of Master of Science in Zoology during the period of 2018-2019 was done under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

*Dr. S. Venkatalakshmi*  
30/3/19

Signature of the Guide

வினாயகியல் துறைத்தலைவர்  
அரசினர் மகளிர் கல்வி நிறுவனம் (அ)  
கும்பகோணம் - 612001.

Examiners

1. *V. S. Srinivasan*  
17/4/19

2. *Dr. S. Venkatalakshmi*  
17/4/19

*Dr. S. Venkatalakshmi*  
30/3/19

Signature of the HOD

Dr. S. Venkatalakshmi, M.Sc., M.Phil., Ph.D.  
Head & Associate Professor in Zoology  
Government College For Women (A)  
Kumbakonam-612001.

Submitted for the viva-voce examination held on 01.04.2019

Dr.R.Balasubramanian, M.Sc., M.Phil., Ph.D.,

Assistant Professor

PG & Research Department of Zoology

Government College for Women (A), Kumbakonam 612 001

Mobile: 9487882215

E.mail: [balaram\\_r2@rediffmail.com](mailto:balaram_r2@rediffmail.com)

.....

### CERTIFICATE

This is certify that the dissertation "Studies on species distribution and diversity of earthworms in Thadhampettai Palur region, Aryalur (Dt) Tamil Nadu" submitted in partial fulfillment of the requirements for the degree of Master of Science in Zoology during the period of 2018-2019 to the Government College for Women (A), Kumbakonam 612 001. Affiliated to the Bharathidasan University, Thirichirapalli is a bonafide record work carried out by K. Sathyabama (Reg. No. P17Zo013) under my supervision.

*Dr. Venkatalakshmi*  
30/4/19  
**Dr. S. Venkatalakshmi, M.Sc., M.Phil., Ph.D.**  
Head of the Department  
**Head & Associate Professor in Zoology**  
**Government College For Woman (A)**  
**Kumbakonam-612001.**

*R. Baby*  
01.04.2019  
Research Guide

- Examiners -
- Volaram* 11/4/19.
  - R. Baby* 01.04.19.



Dr. (Mrs.) D.SOUMADY, M.Sc., M.Phil., Ph.D., PGDTA., M.D.,  
(Acu)  
Assistant Professor in Zoology,  
PG & Research Department of Zoology,  
Government College for Women (Autonomous),  
Kumbakonam – 612 001.



## CERTIFICATE

This is to certify that the dissertation entitled “COMPARATIVE STUDY OF ANTIBACTERIAL ACTIVITY OF ORGANIC TURMERIC AND AACHI TURMERIC AGAINST SELECTED FISH PATHOGENS” Submitted in partial fulfillment of the requirements for the degree of Master of Science in Zoology during the period of 2017-2019 to the Government College for Women (Autonomous), Kumbakonam affiliated to the Bharathidasan University, Thiruchirappalli is a bonafide record of the work carried out by the **G.SHAMINI (Reg.No: P17ZO014)** under my supervision and guidance.

*Dr. S. Venkatalakshmi*  
30/3/19

Head of the Department

**Dr. S. Venkatalakshmi, M.Sc., M.Phil., Ph.D.**  
Head & Associate Professor in Zoology  
Government College For Women (A)  
Kumbakonam-612001.

*G. Shamini*  
29/03/19

Signature of the Guide

**Dr. Mrs. D. SOUMADY**  
M.Sc. M.Phil. Ph.D.  
Assistant Professor in Zoology  
Govt. College for Women (Autonomous)  
Kumbakonam 612001

Examiners

1. *V. Dammam* 11/4/19.

2. *G. Shamini*  
07/04/19



Dr. (Mrs.) D.SOUMADY, M.Sc., M.Phil., Ph.D., PGDTA., M.D.,  
(Acu).

Assistant Professor in Zoology,  
PG & Research Department of Zoology,  
Government College for Women (Autonomous),  
Kumbakonam - 612 001.



### CERTIFICATE

This is to certify that the dissertation entitled "ANTIBACTERIAL ACTIVITY OF SELECTED HERBALS *AZADIRAHTA INDICA* AND *MELIA AZEDARACH* AGAINST FISH PATHOGENS" Submitted in partial fulfillment of the requirements for the degree of Master of Science in Zoology during the period of 2017-2019 to the Government College for Women (Autonomous), Kumbakonam affiliated to the Bharathidasan University, Thiruchirappalli is a bonafide record of the work carried out by the S.SITA (Reg.No: P17ZO015) under my supervision and guidance.

*[Handwritten Signature]*  
20/3/19

*[Handwritten Signature]*  
29/03/19  
Signature of the Guide  
Dr. Mrs. D. SOUMADY  
M.Sc., M.Phil., Ph.D.  
Assistant Professor in Zoology  
Govt College for Women (Autonomous)  
Kumbakonam 612001

Head of the Department  
Dr. V. Lakshmi M.Sc., M.Phil., Ph.D.  
Head of & Associate Professor in Zoology  
Government College for Women (Autonomous)  
Kumbakonam - 612001

Examiners  
1. *[Handwritten Signature]* 14/19.  
2. *[Handwritten Signature]*  
01/4/19

Dr. S. Venkatalakshmi, M.Sc., M.Phil., Ph.D.,  
Head & Associate Professor,  
Controller of the Examination,  
Department of Zoology,  
Govt. College for Women (A),  
Kumbakonam – 612001.  
Tamil Nadu,  
India.



## Certificate

This is to certify that the dissertation entitled, **"EFFECT OF DIFFERENT CONCENTRATION OF GIR CUD ON ENHANCING THE COPEPOD POPULATION DENSTIY"** submitted by Miss. V. SUBHASRI (Reg. No. P17ZO017) in partial fulfillment of the requirements for the award of degree of Master of Science in Zoology during the period of 2018-2019 was done under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

*Dr. S. Venkatalakshmi*  
30/3/19

Signature of the Guide

*Dr. S. Venkatalakshmi*  
30/3/19

Signature of the HOD

**Dr. S. Venkatalakshmi, M.Sc., M.Phil., Ph.D.**  
Head & Associate Professor in Zoology  
Government College For Woman (A)  
Kumbakonam-612001.

Examiners

1. *V. Subhasri* 11/03/19

2. *Dr. S. Venkatalakshmi*  
30/3/19

Submitted for the viva-voce examination held on ..01..04..2019



Dr. S. VENKATLAKSHMI, M.Sc., M.Phil., Ph.D.,  
Head & Associate Professor,

PG & Research Department of Zoology,  
Government College for Women  
(Autonomous)  
Kumbakonam - 612 001.



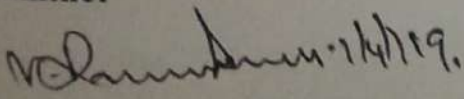
CERTIFICATE

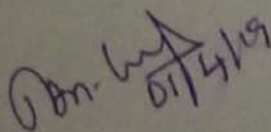
This is to certify that the dissertation entitled "**Studies on Length-Weight Relationship of Grow-Out and loose-shell affected *Litopenaeus Vannamei* low salinity water from Tamil Nadu, India.**" submitted by **S. SUGANYA** Reg. No. **P17ZOO18** in partial fulfilment of the requirement for the degree of **MASTER OF SCIENCE IN ZOOLOGY** of **Government College for Women (Autonomous) Kumbakonam (Affiliated by Bharathidasan University - Thiruchirappalli)** is based on the results of the students carries out under my guidance and supervision during the academic year 2018 - 2019.

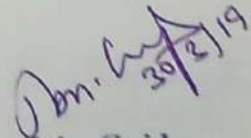
Place: Kumbakonam

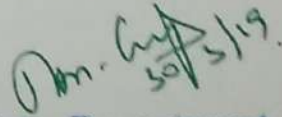
Date:

Examiner

1.  14/1/19.

2.  01/4/19

  
Signature of the Guide

  
Head of the Department

Dr. S. Venkatalakshmi, M.Sc., M.Phil., Ph.D.  
Head & Associate Professor in Zoology  
Government College For Women (A)  
- Kumbakonam-612001.

Submitted for the viva-voce examination held on 01/4/2019

Dr.R.Balasubramanian, M.Sc., M.Phil., Ph.D.,

Assistant Professor

PG & Research Department of Zoology

Government College for Women (A), Kumbakonam 612 001

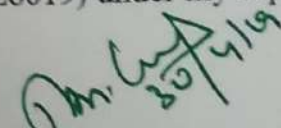
Mobile: 9487882215

E.mail: [balaram\\_r2@rediffmail.com](mailto:balaram_r2@rediffmail.com)

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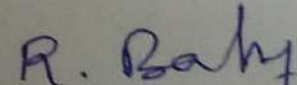
### CERTIFICATE

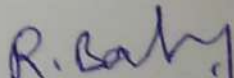
This is certify that the dissertation “ Studies on Biochemical concentration of earthworm, *Lampito mauritii* (L) in Kumbakonam region, Tamil Nadu” submitted in partial fulfillment of the requirements for the degree of Master of Science in Zoology during the period of 2018-2019 to the Government College for Women (A), Kumbakonam 612 001. Affiliated to the Bharathidasan University, Thirichirapalli is a bonafide record work carried out by P.Vijayalakshmi (Reg. No. 17Zo019) under my supervision.

  
Dr. S. Venkatalakshmi, M.Sc., M.Phil., Ph.D.  
Head & Associate Professor in Zoology  
Government College For Woman (A)  
Kumbakonam-612001.

Examiners

1. 

2.   
01.04.2019

  
01.04.2019  
Research Guide



Dr. G. Priya, M.Sc., M.Phil., Ph.D.,  
Lecturer in Zoology,  
Government College for Women (Autonomous),  
Kumbakonam-612 001.



## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled "GROWTH PROMOTING EFFECT OF COW URINE WITH *OCCIMUM SANCTUM* OF DIFFERENT BREEDS ON *LABEO ROHITA*" submitted by Miss. P. VIJAYALAKSHMI (Reg.No.P17ZO020) in partial fulfillment of the requirements of the M.Sc., Degree Course for the academic period 2018-2019 in the subject of Zoology is the original work of the candidate.

*[Handwritten Signature]*  
01/04/19

Signature of the HOD

**Dr. S. Venkatesh Kumar**, M.Sc., M.Phil., Ph.D.,  
Head & Associate Professor,  
Zoology  
Government College for Women (A)  
Kumbakonam-612001.

Examiner

*[Handwritten Signature]* 1.4.19  
Signature of the Guide

**Dr. G. PRIYA**  
Dept. of Zoology.

1. *[Handwritten Signature]* 11/4/19.

2. *[Handwritten Signature]* 1.4.19

Dr. G. Priya, M.Sc., M.Phil., Ph.D.,  
Lecturer in Zoology,  
Government College for Women (Autonomous),  
Kumbakonam-612 001.



## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled "GROWTH PROMOTING EFFECT OF COW URINE WITH *OCCIMUM SANCTUM* OF DIFFERENT BREEDS ON *LABEO ROHITA*" submitted by Miss. P. VIJAYALAKSHMI (Reg.No.P17ZO020) in partial fulfillment of the requirements of the M.Sc., Degree Course for the academic period 2018-2019 in the subject of Zoology is the original work of the candidate.

*Dr. S. Venkatalakshmi*  
01/04/19

Signature of the HOD

**Dr. S. Venkatalakshmi, M.Sc., M.Phil., Ph.D.**  
Head & Assistant Professor  
Government College for Women (A)  
Kumbakonam-612001.

*P. Vijayalakshmi* 1.4.19  
Signature of the Guide

**Dr. G. PRIYA**

Dept. of Zoology.

Examiner

1. *V. Chandrasekaran* 11/4/19.

2. *P. Vijayalakshmi*  
1.4.19

Dr. M. DEIVANAYAKI, M.Sc., M.Phil., Ph.D.,  
Lecturer in Zoology,  
Government College for Women (Autonomous),  
Kumbakonam-612001.



## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled "**CULTURE OF EPIGEIC EARTHWORM, EISENIA FETIDA UNDER GREENGRAM WASTES AND EFFECTS OF GREENGRAM VERMICOMPOST ON THE GROWTH AND YIELD OF OKRA PLANT (ABELMOSCHUS ESCULENTUS)**" Submitted by Miss. B. VIJITHA (Reg.No.P17ZO021) in partial fulfillment of the requirements of the M.Sc., Degree Course for the academic period 2018-2019 in the subject of Zoology is the original work of the candidate.

*[Handwritten Signature]*  
30/3/19

Signature of the HOD

**Dr.S.Venkatalakshmi.M.Sc.,M.Phil.,Ph.D.**  
Head & Associate Professor in Zoology  
Government College For Woman (A)  
Kumbakonam-612001.

Examiner

*[Handwritten Signature]*  
30.03.2019

Signature of the Guide

1. *[Handwritten Signature]* 1/4/19.

2. *[Handwritten Signature]* 1/4/19



**Dr. A.V. KAVITHA, M.Sc., M.Phil., Ph.D.,**

Assistant Professor in Zoology

Govt, College for Women (Auto.)

Kumbakonam.

Date : 25.09.2020

### **CERTIFICATE**

Certified that this project in "HAEMATOLOGICAL STUDIES OF FRESHWATER FISH *LABEO ROHITA* (HAMILTON) EXPOSED TO DIFFERENT MEDIAN - LETHAL CONCENTRATION OF MERCURIC CHLORIDE" is a bonafied record of work done by

**B. AARTHI**

**Reg.No: P18ZO001**

Under my supervision and submitted to Bharathidasan university in partial fulfillment of the requirements for the award of the Degree of Master of Science in Zoology.

*A.V. Kavitha*  
25/09/2020

*A.V. Kavitha*  
25/09/2020  
Signature of the Guide

Signature of the head of the Department

Examiners : 1.

*A.V. Kavitha*

2.

*Gd. Reddy*  
25.09.2020



Dr. R. Balasubramaniyan, M.sc., M, Phil., Ph.D.,  
Assistant professor,  
PG& Research Department of Zoology,  
Government College for Women (Autonomous),  
Kumbakonam-612 001,  
Mobile: 9487882215,  
E. Mail: balaram\_r2@rediffmail.com.



### CERTIFICATE

This is to certify that the dissertation "STUDIES ON MACROBENTHIC FORM DISTRIBUTION IN VAILANKANNI COASTAL WATERS, SOUTHEAST COASTAL OF INDIA" submitted in fulfilment of the requirements for the degree of Master of science in Zoology during the period of 2018-2020 to the Government College for women (Autonomous), Kumbakonam. Affiliated to the Bharathidasan University, Thiruchirappalli is a bonafide record work carried out by the P.AKILA (Reg. No: P18ZO002) under my supervision.

*Dr. R. Balasubramaniyan*  
29/09/2020

Head of the Department

*P. Akila*  
Research Guide

Examiners

*Dr. R. Balasubramaniyan*  
29/09/2020  
*G. J. Jeyaraj*  
25.09.2020

**Dr. M. GOVINDARAJAN,**  
M.Sc., M.Phil., Ph.D.,  
**Assistant Professor,**  
**Department of Zoology,**  
**Govt. College for Women (A),**  
**Kumbakonam - 612001.**  
**Tamil Nadu, India.**  
**Email: [drgovind1979@gmail.com](mailto:drgovind1979@gmail.com)**  
**Cell: 9585265999**

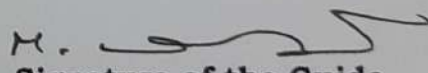


## Certificate

This is to certify that the dissertation entitled, "Biogenic fabrication and characterization of silver nanoparticles using *Oxalis debilis* (Oxalidaceae) against mosquito vectors" submitted by Miss. K. KLAKKIYA (Reg. No. P18ZO003) in partial fulfilment of the requirements for the award of degree of Master of Science in Zoology during the period of 2019-2020 under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

  
25/09/2021

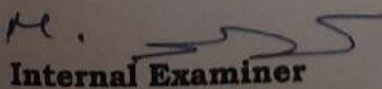
**Signature of the HOD**



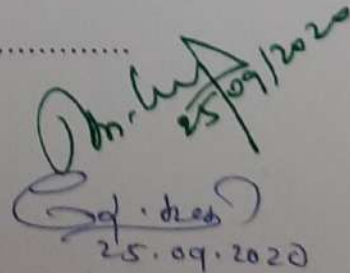
**Signature of the Guide**

**Dr.M.GOVINDARAJAN,**  
M.Sc., M.Phil., Ph.D.,  
Assistant Professor of Zoology,  
Government College for Women (A),  
Kumbakonam-612001,  
Tamilnadu,India.

Submitted for the viva-voce examination held on .....



**Internal Examiner**

  
25.09.2020

**External Examiner**



**GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS),  
KUMBAKONAM - 612 001**

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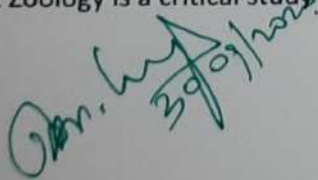
Dr. V. RAVI M.Sc., M.Phil., Ph.D  
Associate Professor  
PG & Research Department of Zoology

---

Date: 25.09.2020

**CERTIFICATE**

This is to certify that the project was done under my guidance and the dissertation entitled 'STUDIES ON THE BIODIVERSITY OF FRESHWATER FISHES FROM LOWER ANAIKARAI DAM, TAMIL NADU, INDIA' submitted by B. JAYAPRIYA (Reg. No: P18ZO004) in partial fulfillment of the requirement of the M.Sc., Degree course for the academic period 2018-2020 in the subject Zoology is a critical study by the candidate.

  
Signature  
of the Head of the Department

  
Signature  
of the Research Guide

Examiner

1. 

2.



Dr. E. Natarajan., M.Sc., M.Phil., D.F.Sc., NET., Ph.D.,  
Assistant Professor of Zoology  
PG & Research Department of Zoology  
Government College for Women (Autonomous)  
KUMBAKONAM-612001.



## CERTIFICATE

This is to certify that the dissertation entitled "In-vitro Evaluation of Antioxidant Properties of Collagen from Marine fish, Red banded Snapper (*Lutjanus argentimaculatus*)" submitted in partial fulfillment of the requirement for the degree of Master of Science in Zoology during the period of 2018-2020 to the Government college for Women (Autonomous), Kumbakonam affiliated to the Bharathidasan University, Thiruchirapalli is a bonafide record of the work carried out by the M.Kaviya (Reg.No:P18ZOO06) Under my supervision and guidance.

Head of the Department

Signature of the guide

Examiners:

1.

*[Handwritten Signature]*  
25/09/2020

2.

*[Handwritten Signature]*  
25.09.2020

Miss. J. ANANDHI, M.Sc., M.Phil., Ph.D.,

Guest Lecturer,

PG& Research Department of Zoology,

Government College for Women (Autonomous),

Kumbakonam-612 001,

Mobile: 9488885954,

Mail Id: ananthizooology@gmail.com



### CERTIFICATE

This is to certify that the dissertation “ **EFFECT OF COW URINE AND IT'S COMBINATION WITH NEEM EXTRACT ON ANTIBACTERIAL ACTIVITY AGAINST FISH PATHOGENS**” submitted in fulfilment of the requirements for the degree of Master of science in Zoology during the period of 2018-2020 to the Government College for women (Autonomous), Kumbakonam. Affiliated to the Bharathidasan University, Thiruchirappali is a bonafide record work carried out by the **B.MEENA** (Reg. No: **P18ZO008**) under my supervision.

*[Handwritten Signature]*  
25/09/2020

Head of the Department

*[Handwritten Signature]*  
Research Guide

Examiners

1. *[Handwritten Signature]*  
25/09/2020  
2. *[Handwritten Signature]*  
25-9-2020

Dr .G. PRIYA M.sc., M .Phil., Ph.D .,

Lecturer,

PG& Research Department of Zoology,

Government College for Women (Autonomous),

Kumbakonam-612 001.



### CERTIFICATE

This is to certify that the dissertation "HEALTH STATUS OF NARIKURAVAS COMMUNITY (WOMEN & GIRL CHILDS) IN EZHUMAANTHIDAL VILLAGE IN TAMILNADU" submitted in fulfilment of the requirements for the degree of Master of science in Zoology during the period of 2018-2020 to the Government College for women (Autonomous), Kumbakonam. Affiliated to the Bharathidasan University, Thiruchirappali is a bonafide record work carried out by the G.NILA (Reg. No: P18ZO009) under my supervision.

*G. Priya*  
25.09.2020

Head of the Department

*G. Priya*  
25.09.2020  
Research Guide  
(Dr. G. PRIYA)

Examiners

*G. Priya*  
25.09.2020  
*G. Priya*  
25.4.2020





**GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS),  
KUMBAKONAM - 612 001**

Dr. V. RAVI M.Sc., M.Phil., Ph.D  
Associate Professor  
PG & Research Department of Zoology

Date: 25.9.2020

**CERTIFICATE**

This is to certify that the project was done under my guidance and the dissertation entitled 'STUDIES ON THE FLYING FISH, *EXOCOETUS VOLITANS* LINNAEUS, NAGAPATTINAM, SOUTHEAST COAST OF INDIA' submitted by S. NISHA (Reg. No: P18ZOO10) in partial fulfillment of the requirement of the M.Sc., Degree course for the academic period 2018- 2020 in the subject Zoology is a critical study by the candidate.

*Dr. V. Ravi*  
25/09/2020

Signature  
of the Head of the Department

*S. Nisha*  
25/09/2020

Signature  
of the Research Guide

Examiner

1.

*Dr. V. Ravi*  
25/09/2020

2.

*S. Nisha*  
25.09.2020

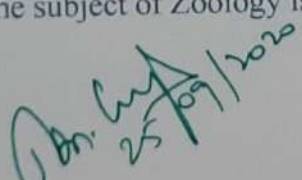
**Dr. A.V. KAVITHA** M.Sc., M.Phil., Ph.D.,  
Assistant Professor  
Department of Zoology




**Government college for women (A)**  
Kumbakonam – 612 001,  
Thanjavur (dt).

### CERTIFICATE

This is to certify that the project work was done under my guidance and dissertation entitled **EFFECT OF MERCURIC CHLORIDE AND THE INFLUENCE OF EDTA (ethylenediaminetetraacetic acid) IN BIOENZYMOLOGICAL STUDIES ON FISH *Labeo rohita* (HAM.)** submitted by Mrs **S. RAMYA** (Reg. No. P17ZO012) in partial fulfilment of the requirements of the M. Sc., Degree Course for the academic period 2019 – 2020 in the subject of Zoology is the original work of the candidate.

  
Signature of the HOD

  
Signature of the Guide

Examiner

1. 

2.

**Dr. A.V. KAVITHA**, M.Sc., M.Phil., Ph.D.,  
Assistant Professor  
Department of Zoology  
Government College for Women  
Kumbakonam - 612 001.

Dr. R. Balasubramanian, M.sc., M.Phil., Ph.D.,

Assistant professor,

PG& Research Department of Zoology,

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Kumbakonam-612 001,

Mobile: 9487882215,

E. Mail: balaram\_r2@rediffmail.com.



### CERTIFICATE

This is to certify that the dissertation “ **STUDIES ON ENVIRONMENTAL INFLUENCE WITH FORAMINIFERAN SPECIES DISTRIBUTION IN KODIYAKARAI COASTAL WATERS, SOUTHEAST COAST OF INDIA**” submitted in partial fulfilment of the requirements for the degree of Master of science in Zoology during the period of 2018-2020 to the Government College for women (Autonomous), Kumbakonam. Affiliated to the Bharathidasan University, Thiruchirappalli is a bonafide record work carried out by the

**N. PRIYA**(Reg. No: P18ZO013) under my supervision.

*Dr. R. Balasubramanian*  
30/07/2020

Head of the Department

*R. Bahy*  
Research Guide

Examiners

*Dr. R. Balasubramanian*



Dr. D.SOUMADY, Ph.D.,  
Assistant professor in Zoology,  
Government College for Women (A), Kumbakonam-612001.



## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **A COMPARATIVE STUDY OF AVIFAUNAL DIVERSITY IN AND AROUND KUMBAKONAM, THANJAVUR DISTRICT, TAMILNADU, INDIA.** Submitted by **S.PRIYANKA (Reg.No.P18ZO014)** in partial fulfillment of the requirements of the M.Sc., Degree Course for the academic period 2019-2020 in the subject of Zoology is the original work of the candidate.

*Dr. D. Soumady*  
30/09/2020

*Dr. Mrs. D. Soumady*

Signature of the HOD

Signature of the Guide

**Dr. Mrs. D. SOUMADY**  
M.Sc. M.Phil. Ph.D.  
Assistant Professor in Zoology  
Govt. College for Women (Autonomous)  
Kumbakonam - 612001

Examiner

1.

*Dr. D. Soumady*

2.

*Dr. Mrs. D. Soumady*

**Dr. Mrs. D. SOUMADY**  
M.Sc. M.Phil. Ph.D.  
Assistant Professor in Zoology  
Govt. College for Women (Autonomous)  
Kumbakonam - 612001

Dr. V. KAVITHA M.Sc., M.Phil., Ph.D.,  
Assistant Professor of Zoology,  
Government College for Women (A),  
Kumbakonam - 612 001.



### CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled TOXIC EFFECT OF NOMINEE GOLD ON BIOMASS AND REPRODUCTIVE ABILITY OF INDIAN EARTHWORM *LAMPITO MAURITII* (KINBERG) (ANNELIDA: OLIGOCHAETA) submitted by Miss. M.RENUGA. (Reg . No. P18ZOO15) in partical fulfillment of the requirements for the M.Sc., Degree course for the academic period 2018-2020 in the subject of Zoology is the original work of the candidate.

*Dr. Kavitha*  
25/09/2020

Signature of the HOD

*V. Kavitha*  
24/9/2020

Signature of the Guide

Examiner

- 1.
- 2.

*Dr. Kavitha*  
25/09/2020

Dr. D.SOUMADY, Ph.D.,  
Assistant professor in Zoology,  
Government College for Women (A), Kumbakonam-612001.



## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **CALL BACK HOUSE SPARROW FOR CONSERVATION IN AND AROUND KUMBAKONAM, THANJAVUR DISTRICT, TAMIL NADU, INDIA** Submitted by **S.ROOPANANDHINI** (Reg.No.P18ZO017) in partial fulfillment of the requirements of the M.Sc., Degree Course for the academic period 2019-2020 in the subject of Zoology is the original work of the candidate.

*Dr. D. Soumady*  
25/09/2020

Signature of the HOD

*S. Roopandhini*

Signature of the Guide

Examiner

1.

*Dr. D. Soumady*  
25/09/2020

2.

*Dr. D. Soumady*

DR. MRS. D. SOUMADY  
M.Sc. Zoology  
Assistant Professor in Zoology  
Govt. College for Women (Autonomous)  
Kumbakonam 612001



# ACKNOWLEDGEMENT



Dr.K.Bhavani.,M.sc.,M.Phil.,B.Ed.,Ph.D.,  
Assistant professor of zoology  
Lecturer in Zoology,  
Government College for Women (Autonomous),  
Kumbakonam-612001

## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **MONOCROTOPHOS INDUCED BIOCHEMICAL ALTERATIONS IN THE INDIAN MAJOR CARP, LABEO ROHITA** by Miss. A.SARANYA (Reg.No.P18ZO018) in partial fulfillment of the requirements of the M.Sc., Degree Course for the academic period 2019-2020 in the subject of Zoology is the original work of the candidate.

*[Handwritten Signature]*  
25/09/2020

Signature of the HOD

*[Handwritten Signature]*

Signature of the Guide

Examiner

1.

*[Handwritten Signature]*  
25/09/2020

2.

*[Handwritten Signature]*

(A.SARANYA)

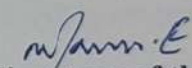
Dr. E. Natarajan., M.Sc., M.Phil.,D.FSc., NET.,Ph.D.,  
Assistant Professor of Zoology  
PG & Research Department of Zoology  
Government College for Women (Autonomous)  
KUMBAKONAM-612001.



## CERTIFICATE

This is to certify that the dissertation entitled “**Isolation, and Partial Characterization of Collagen from Fresh Water fish, *Labeo rohita***” submitted in partial fulfillment of the requirement for the degree of Master of Science in Zoology during the period of 2018-2020 to the Government college for Women (Autonomous), Kumbakonam affiliated to the Bharathidasan University, Thiruchirappalli is a bonafide record of the work carried out by the J.Suganya (Reg.No P18ZOO19) Under my supervision and guidance.

  
Head of the Department

  
Signature of the guide

Examiners:

1. 

2.



Dr. M. DEIVANAYAKI, M.Sc., M.Phil., Ph.D.,

Guest Lecturer in Zoology,

Government College for Women (Autonomous), Kumbakonam-612001.

### CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **“EFFECT OF VERMICOMPOST ON THE GROWTH AND YIELD OF BRINJAL PLANT”** Submitted by Miss. S.VIJAYALAKSHMI (Reg.No.P18ZO020) in partial fulfillment of the requirements of the M.Sc., Degree Course for the academic period 2019-2020 in the subject of Zoology is the original work of the candidate.

*[Handwritten Signature]*  
30/09/2020

Signature of the HOD

*[Handwritten Signature]*

Signature of the Guide

Examiner

*[Handwritten Signature]*  
30/09/2020

1.

2.

*[Handwritten Signature]*  
30/09/2020



**Dr. V. KAVITHA., M.Sc., M.Phil., Ph.D.,**  
Assistant Professor of Zoology,  
Government College for Women (Autonomous),  
Kumbakonam – 612 001.



## CERTIFICATE

This is to certify that the project work was done under my guidance and dissertation entitled **“ACUTE TOXICITY AND BACTERIAL POPULATION STUDY OF PRETILACHLOR ON INDIAN EARTHWORM LAMPITO MAURITII (KINBERG) (Annelida : Oligochaeta)”** Submitted by **Miss. E.ARUL NISHA (Reg.No.P19ZO001)** In partial fulfilment of the requirements of the M.Sc., Degree Course for the Academic period 2020 – 2021 in the subject of Zoology is the original work of the candidate.

*[Handwritten Signature]*  
22/04/2021

Signature of the HOD

*[Handwritten Signature]*  
22/04/2021

Signature of the Guide

**Dr. V. KAVITHA, M.Sc., M.Phil., Ph.D.**  
Assistant Professor,  
Department of Zoology,  
Govt. College for Women (Autonomous),  
Kumbakonam - 612 001.

Examiner

- [Handwritten Signature]*  
22.4.21
- [Handwritten Signature]*  
22.04.21



**Dr. V. KAVITHA., M.Sc., M.Phil., Ph.D.,**  
Assistant Professor of Zoology,  
Government College for Women (Autonomous),  
Kumbakonam - 612 001.



### CERTIFICATE

This is to certify that the project work was done under my guidance and dissertation entitled **“VERMICOMPOSTING OF TEAK LEAVES USING AN INDIAN EARTHWORM, *L.MAURITII* (KINBERG) (ANNELIDA:OLIGOCHAETA)”** submitted by **Mrs. A. BASIL FRANKO (Reg.No: P19ZO003)** In partial fulfilment of the requirements of the M.Sc., Degree Course for the Academic period 2020 – 2021 in the subject of Zoology is the original work of the candidate.

*[Handwritten Signature]*  
22/04/2021

Signature of the HOD

*[Handwritten Signature]*  
22/04/2021

Signature of the Guide  
**Dr. V. KAVITHA, M.Sc., M.Phil., Ph.D.,**  
Assistant Professor,  
Department of Zoology,  
Govt. College for Women (Autonomous),  
Kumbakonam - 612 001.

Examiner

1. *[Handwritten Signature]*  
22.4.21
2. *[Handwritten Signature]*  
22.04.21





Dr. D.SOUMADY, Ph.D.,

Assistant professor in Zoology,

Government College for Women (A), Kumbakonam-612001.



## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **A STUDY ON THE BIODIVERSITY OF FAUNA OBSERVED FROM COLLEGE CAMPUS OF GOVERNMENT COLLEGE FOR WOMEN (A) KUMBAKONAM, THANJAVUR DISTRICT, TAMIL NADU, INDIA.** Submitted by **R.DAYANA (Reg.No.P19ZOO05)** in partial fulfillment of the requirements of the M.Sc., Degree Course for the academic period 2020-2021 in the subject of Zoology is the original work of the candidate.

*Dr. D. Soumady*  
22/04/21

Signature of the HOD

*Dr. Mrs. D. Soumady*

Signature of the Guide

Examiner



1.

*A.V. Kuthy*

2.

*Dr. Mrs. D. Soumady*

**Dr. Mrs. D. SOUMADY**  
M.Sc., M.Phil., Ph.D.,  
Assistant Professor in Zoology  
Govt. College for Women (Autonomous)  
Kumbakonam - 612 001.



Dr. G.PRIYA, M.Sc., M.Phil., Ph.D.,  
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Government College for Women (Autonomous),  
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### CERTIFICATE

This is to certify that the dissertation "A case study on Bird abundance of agro ecosystem in Pudhupadaiyur village, Thanjavur District, Tamilnadu." submitted in fulfilment of the requirements for the degree of Master of science in Zoology during the period of 2020-2021 to the Government College for women (Autonomous), Kumbakonam. Affiliated to the Bharathidasan University, Thiruchirappali is a bonafide record work carried out by the V.DURGA DEVI (Reg.No. P19ZO006) under my supervision.

*[Handwritten Signature]*  
24/04/2021

Head of the Department

*[Handwritten Signature]*  
Research Guide  
(Dr. G.PRIYA)

Examiners



**Dr.K.BHAVANI, M.Sc., M.Phil., B.Ed., Ph.D.,**

*Lecturer in Zoology,*

*Government College for Women (Autonomous),*

*Kumbakonam - 612 001.*



**CERTIFICATE**

This is to certify that the dissertation entitled **EFFECT OF ZNO/SIO<sub>2</sub> NANOCOMPOSITE AGAINST AEDES AEGYPTI MOSQUITO VECTOR** Submitted by in partial fulfilment of the requirement for the degree of Master of Science in Zoology during the period of 2020-2021 to the Government collage for Women (Autonomous), Kumbakoanam affiliated to the Bharathidasan University, Thiruchirappalli is a bonafide record of the work carried out by the **Miss. J.JOHNMECIYA (Reg.No.P19ZO009)** under my supervision and guidance.

*Dr. K. Bhavani*  
*19/04/2021*

Head of the Department

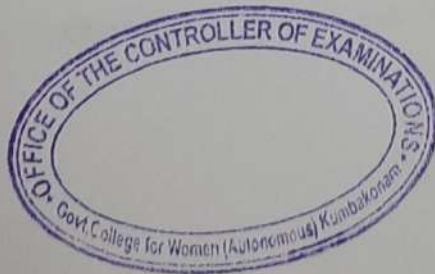
*Ms. J. Johnmeciya*  
*19/04/2021*  
Signature of the Guide

April 2021.

Examiners:

1.

2. *Ms. J. Johnmeciya*





**Dr.K.BHAVANI, M.Sc., M.Phil., B.Ed., Ph.D.,**

*Lecturer in Zoology,*

*Government College for Women (Autonomous),*

*Kumbakonam – 612 001.*



## CERTIFICATE

This is to certify that the dissertation entitled **STUDIES ON DECOLORISATION OF WASTE WATER USING OCIMUM TENUIFLORUM AND HEMIDESMUS INDICUS ACTIVATED CARBON** Submitted by in partial fulfilment of the requirement for the degree of Master of Science in Zoology during the period of 2020-2021 to the Government collage for Women (Autonomous), Kumbakoanam affiliated to the Bharathidasan University, Thiruchirappalli is a bonafide record of the work carried out by the **Miss. J.JOHN STEPHINA (Reg.No.P19ZO010)** under my supervision and guidance.

*J. John Stephina*  
19/04/2021

Head of the Department

*LCBL*: 19/04/2021

Signature of the Guide



**Examiners:**

1.

2. *LCBL*



Dr. G.PRIYA, M.Sc., M.Phil., Ph.D.,

Guest Lecturer,

PG& Research Department of Zoology,

Government College for Women (Autonomous),

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Mobile: 9487882215,

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### CERTIFICATE

This is to certify that the dissertation "**Amphibians abundance in water bodies of Thiruchirai village, Thanjavur district, Tamil Nadu.**" submitted in fulfilment of the requirements for the degree of Master of science in Zoology during the period of 2020-2021 to the Government College for women (Autonomous), Kumbakonam. Affiliated to the Bharathidasan University, Thiruchirappali is a bonafide record work carried out by the **D.NITHYA** (Reg.No.P19ZO012) under my supervision.

*[Handwritten Signature]*  
23/04/2021

**Head of the Department**

*[Handwritten Signature]*  
**Research Guide**  
(Dr. G. PRIYA)

**Examiners**



**Dr. M. DEIVANAYAKI, M.Sc., M.Phil., Ph.D.,**  
Lecturer in Zoology,  
Government College for Women (Autonomous),  
Kumbakonam – 612 001.



### CERTIFICATE

This is to certify that the project work was done under my guidance and dissertation entitled **“EFFECT OF DIFFERENT TEA POWDER WASTE MEDIA ON THE GROWTH AND COCOON PRODUCTIONS OF *EISENIA FETIDA*”** Submitted by **Miss. B.SAVITHIRI (Reg.No.P1ZO015)** In partial fulfilment of the requirements of the M.Sc., Degree Course for the Academic period 2020 – 2021 in the subject of Zoology is the original work of the candidate.

*M. Deivanayagi*  
19/04/2021

Signature of the HOD

*M. Deivanayagi*  
19/04/21

Signature of the Guide

Examiner

1.

2. *M. Deivanayagi*



**Dr.A.V.KAVITHA., M.Sc., M.Phil., Ph.D.,**  
Assistant professor in Zoology,  
Government College for Women (Autonomous),  
Kumbakonam – 612 001.



### CERTIFICATE

Certified that this project in **EFFECT OF MERCURIC CHLORIDE ON BLOOD COMPONENTS OF FRESH WATER FISH LABEO ROHITA (HAM.)** is a bonafied record of work done by a **Miss. R. SENTHOORIYA (Reg.No.P19ZO016)** under my supervision and submitted to Bharathidasan University in partial fulfillment of the requirements for the award of the Degree of Master of Science in Zoology.

*[Handwritten Signature]*  
23/04/2021

Signature of the Head of the Department

*[Handwritten Signature]*  
22/04/2021

Signature of the Guide

Examiners:

- [Handwritten Signature]*
- [Handwritten Signature]*





**Dr.K.BHAVANI., M.Sc., M.Phil., B.Ed., Ph.D.,**

*Lecturer in Zoology,*

*Government College for Women (Autonomous),*

*Kumbakonam – 612 001.*



### CERTIFICATE

This is to certify that the dissertation entitled **“STUDIES ON THE GREEN SYNTHESIS OF Mg DOPED ZnS NANOPARTICLE ON FRESH WATER FISH *OREOCHROMIS MOSSAMBICUS*”** Submitted by in partial fulfilment of the requirement for the degree of Master of Science in Zoology during the period of 2020-2021 to the Government collage for Women (Autonomous), Kumbakoanam affiliated to the Bharathidasan University, Thiruchirappalli is a bonafide record of the work carried out by the **Miss.R. SINDHUJA (Reg.No.P19ZO017)** under my supervision and guidance.

*Dr. K. Bhavani*  
19/04/2021

**Head of the Department**

*U. S. L.* 19/04/2021  
**Signature of the Guide**

**Examiners:**

- 1.
2. *U. S. L.*



**Dr. M. DEIVANAYAKI, M.Sc., M.Phil., Ph.D.,**

*Lecturer in Zoology,*

*Government College for Women (Autonomous),*

*Kumbakonam – 612 001.*



## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **“EFFECT OF DIFFERENT MANGIFERA INDICA LEAVES MEDIA ON THE GROWTH AND COCOON PRODUCTION OF EUDRILUS EUGENIAE”** Submitted by **Miss. S.VARSHA(Reg.No.P19ZO020)** in partial fulfillment of the requirements of the M.Sc., Degree Course for the academic period 2020-2021 in the subject of Zoology is the original work of the candidate.

*M. Deivanayaki*  
24/04/2021

Signature of the HOD

*M. Deivanayaki*  
19/4/21

Signature of the Guide



Examiner

1.

2. *M. Deivanayaki*



**Dr. V. KAVITHA., M.Sc., M.Phil., Ph.D.,**  
Assistant Professor of Zoology,  
Government College for Women (Autonomous),  
Kumbakonam – 612 001.



## CERTIFICATE

This is to certify that the project work was done under my guidance and dissertation entitled **“TOXIC EFFECT OF INSECTICIDE, PROFENOFOS ON THE BIOMASS OF AN INDIAN EARTHWORM LAMPITO MAURITII (KINBERG) (Annelida : Oligochaeta)”** Submitted by **Miss. S.YUVARANI, (Reg.No.P19ZO021)** In partial fulfilment of the requirements of the M.Sc., Degree Course for the Academic period 2020 – 2021 in the subject of Zoology is the original work of the candidate.

*[Handwritten Signature]*  
22/04/2021

Signature of the HOD

*[Handwritten Signature]*  
22/04/2021

Signature of the Guide  
**Dr. V. KAVITHA, M.Sc., M.Phil., Ph.D.**  
Assistant Professor,  
Department of Zoology,  
Govt. College for Women (Autonomous),  
Kumbakonam - 612 001.

Examiner

1. *[Handwritten Signature]*  
22.4.21

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22.04.21





Dr. G. PRIYA M.Sc., M.Phil., PGDBL., Ph.D.,  
Guest lecturer ;  
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### CERTIFICATE

This is to certify that the dissertation entitled, "COMPARATIVE STUDY ON BIRDS ABUNDANCE OF VARIOUS ECOSYSTEM" submitted by Miss. R. AKILA (Reg. No. P20ZO001) in partial fulfillment of the requirements for the award of degree of Master of Science in Zoology during the period of 2021-2022 was done under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

*J. Priya*  
03.06.22

RESEARCH GUIDE

Examiners

1. *Chandrasekhar* 10/6/2022

2. *J. Priya* 10.6.22

*Dr. G. Priya*  
05/06/22

HEAD OF THE DEPARTMENT

வினாயகியல் துறைத்தலைவர்  
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## Certificate

This is to certify that the dissertation entitled, "LARVICIDAL EFFECTS OF CALENDULA OFFICINALIS (ASTERACEAE) LEAF EXTRACTS ON THE MALARIA VECTOR ANOPHELES STEPHENSI (DIPTERA: CULICIDAE)" submitted by Miss. S.ANNAPOORANI (Reg. No. P20ZO002) in partial fulfillment of the requirements for the award of degree of Master of Science in Zoology during the period of 2021-2022 under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

*Dr. M. Govindarajan*  
03/06/22

**Signature of the HOD**

வினாயகியல் துறைத்தலைவர்  
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*Dr. M. Govindarajan*  
26-05-22

**Signature of the Guide**

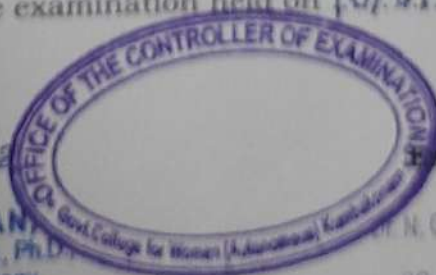
**Dr.M.GOVINDARAJAN,**  
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*Dr. N. Chandrakala*  
10/6/2022

**External Examiner**

**N. CHANDRAKALA,** M.Sc., B.Ed., M.Phil., Ph.D.  
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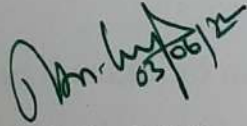


**Dr. M. DEIVANAYAKI, M.Sc., M.Phil., Ph.D.,**  
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## CERTIFICATE

This is to certify that the project work was done under my guidance and dissertation entitled **“A STUDY ON THE GROWTH AND COCOON PRODUCTION OF EUDRILUS EUGENIAE CULTURED IN DIFFERENT THESPESIA POPULNEA LEAVES WASTE MEDIA ”** Submitted by **Miss. K. ATCHAYA (Reg.No.P20ZO003)** In partial fulfilment of the requirements of the M.Sc., Degree Course for the Academic period 2021–2022 in the subject of Zoology is the original work of the candidate.

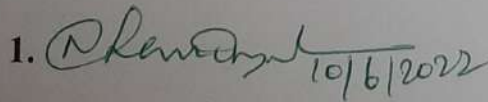
  
03/06/22

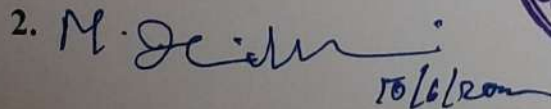
Signature of the HOD

சிரசினா மகளிர் கல்லூரி (தன்னாட்சி)  
கும்பகோணம்-612 001,  
Examiner

  
03/06/22

Signature of the Guide

1.   
10/6/2022

2.   
10/6/2022







GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)  
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DR. S. VENKATALAKASHMI M.Sc., M.Phil., Ph.D.,  
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PG & RESEARCH DEPARTMENT OF ZOOLOGY

03.06.22 Date:

CERTIFICATE

This is to certify that the project was done under my guidance and the dissertation entitled 'PREVALENCE OF DIABETIC MELLITUS IN KODAVASAL TOWN AND ANTIDIABETIC EFFECT OF WHITE FLOWERS OF *CATHARANTHUS ROSEUS* THROUGH TRADITIONAL METHOD OF DECOCTION CONSUMPTION' submitted by S. DIVYAJOTHI (Reg. No: P20ZO004) in partial fulfillment of the requirement of the M.Sc., degree course for the Academic Period 2021– 2022 in the Subject Zoology is a critical study by the candidate.

*Dr. S. Venkatalakshmi*  
03/06/22

Signature

of the Head of the Department  
அறிவியல் துறைத் தலைவர்  
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*Dr. S. Venkatalakshmi*  
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1. *Dr. S. Venkatalakshmi* 10/6/2022  
2. *Dr. S. Venkatalakshmi* 10/06/22



Dr. D.SOUMADY, Ph.D.,  
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## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **A COMPARATIVE STUDY ON POPULATION DENSITY OF BLACK KITE (*MILVUS MIGRANS*) AND BRAHMINY KITE (*HALLASTUR INDUS*) IN DIFFERENT HABITAT AT TAMIL NADU, INDIA** Submitted by **R.GUNAVATHI (Reg.No.P20ZO005)** in partial fulfillment of the requirements of the M.Sc., Degree Course for the academic period 2021-2022 in the subject of Zoology is the original work of the candidate.

*[Handwritten Signature]*  
05/06/22

Signature of the HOD

கிளைத்தலைவர் சுவாமிநாதன்  
திரைகோயில் கல்லூரி (தன்னாட்சி)  
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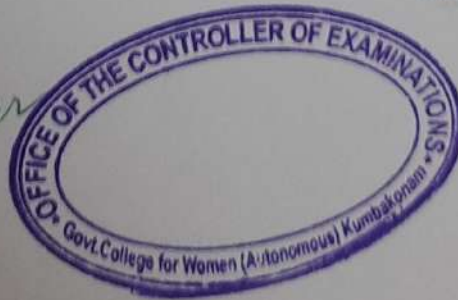
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04.06.22

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2. *[Handwritten Signature]*  
10.06.2022





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## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **“BIOSYNTHESIS AND CHARACTERIZATION OF IRON OXIDE NANOPARTICLE USING HELIANTHUS ANNUUS SEEDS AND ANALYSIS OF THEIR ANTIFUNGAL ACTIVITY”** submitted by Miss N. HARIPRIYA (Reg. No. P20ZO006) in partial fulfillment of the requirements for the M.Sc., Degree course for the academic period 2021-2022 in the subject of Zoology is the original work of the candidate.

Signature of the HOD

வினங்கியல் துறைத்தலைவர்  
அரசினா மகளிர் கல்லூரி (குன்னாட்சி)  
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Signature of the Guide

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1. [Signature] 10/6/2022
2. [Signature] 10/06/22





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### CERTIFICATE

This is to certify that the dissertation **STUDIES ON LENGTH WEIGHT RELATIONSHIP OF CRAB, *PORTUNUS SANGUINOLENTUS* (HERBST, 1783), IN NAGAPATTINAM COASTAL WATERS, SOUTHEAST COST OF INDIA** submitted in fulfilment of the requirements for the degree of Master of Science in Zoology during the period of Aug. 2021-Mar. 2022 to the Government College for Women (Autonomous), Kumbakonam. Affiliated to the Bharathidasan University, Thiruchirappali is a bonafide record work carried out by the **K. JASMINE BEGAM (Reg. No: P20ZO007)** under my supervision.

*Dr. R. Balasubramanian*  
03/06/22

Head of the Department

மீனப்பியல் துறைத்தலைவர்  
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Examiners

1. *Chandrasekaran* 10/05/2022
2. *R. Balasubramanian* 10/06/2022

*R. Balasubramanian*  
Research Guide



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### CERTIFICATE

This is to certify that the dissertation **STUDIES ON LENGTH WEIGHT RELATIONSHIP OF FISH, *SILLAGO SIHAMA* (FORSSKAL, 1775), IN NAGAPATTINAM COASTAL WATERS, SOUTHEAST COAST OF INDIA** Submitted in fulfillment of the requirements for the degree of Master of Science in Zoology during the period of Aug. 2021-Mar. 2022 to the Government College for Women (Autonomous), Kumbakonam. Affiliated to the Bharathidasan University, Thiruchirappali is a bonafide record work carried out by **T.KEERTHI**, (Reg. No: **P20ZO008**) under my supervision.

*Am. Subramanian*  
05/06/2022

**Head of the Department**

*R. Baby*  
04/06/2022  
Research Guide

**வினாத்தாள்** துறைத்தலைவர்  
சிரச்சினா மகளிர் கல்லூரி (தன்னாட்சி)  
கும்பகோணம்-612 001.

**Examiners**



- Chandrasekaran*  
05/06/2022
- R. Baby*  
04/06/2022



**DR . A. V. KAVITHA., M.Sc., M.Phil., Ph.D.,**

Assistant Professor of Zoology,

Government College for Women (A.)

Kumbakonam- 612 001.



## **CERTIFICATE**

This is to certify that the project work was done under my guidance and the dissertation entitled "**ROLE OF LEAF EXTRACT OF *CARRICA PAPAYA* (LINN.) AGAINST MERCURIC CHLORIDE INDUCED NEPHROTOXICITY IN FRESH WATER FISH LABEO ROHITA (HAMILTON)**" submitted by Miss R.KIRUTHIGA (Reg.No.P20ZO009) in partial fulfilment of the requirements for the M.Sc., Degree course for the academic period 2021-2022 in the subject of Zoology is the original work of the candidate.

*[Handwritten Signature]*  
05/06/2022

Signature of the Head of the Department

கனகசபைத் துறைத்துறைவக்  
அரசினா மகளிர் கல்லூரி (தன்னாட்சி)  
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Examiners

1. *[Handwritten Signature]* 10/6/2022
2. *[Handwritten Signature]* 10/6/2022

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01/06/2022

Signature of the Guide

Dr. Mrs. A.V. KAVITHA, M.Sc., M.Phil., Ph.D.  
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## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **HELIANTHUS ANNUUS SEEDS EXTRACT ASSISTED BIOSYNTHESIS OF IRON NANOPARTICLES - CHARACTERISATION AND ANTIBACTERIAL STUDY** submitted by Miss **K. LAVANYA (Reg. No. P20ZO010)** in partial fulfillment of the requirements for the M.Sc., Degree course for the academic period 2021-2022 in the subject of Zoology is the original work of the candidate.

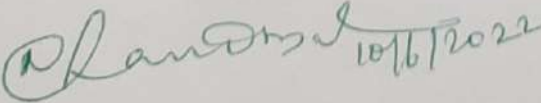
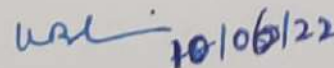
Signature of the HOD

வினாயக்யல் துறைத்தலைவர்  
அரசினா மகளிர் கல்லூரி (தன்னாட்சி)  
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Signature of the Guide

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Examiner

1.  10/6/2022
2.  10/06/22



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## Certificate

This is to certify that the dissertation entitled, "Efficacy of *Matricaria chamomilla* (Asteraceae) essential oil against filariasis vector *Culex quinquefasciatus* (Diptera: Culicidae)" submitted by Ms. K.MONIKA (Reg. No. P20ZO011) in partial fulfilment of the requirements for the award of degree of Master of Science in Zoology during the period of 2020-2021 under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

*Dr. M. Govindarajan*  
23/05/22

**Signature of the HOD**

வினாயகம் சுவாமிநாதன்  
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*M. Govindarajan*  
26.05.22

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10/6/22

**Internal Examiner**

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10/6/2022

**External Examiner**

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Kumbakonam- 612 001.



## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **“TOXIC EFFECT OF THIACTOPRID ON DIGESTIVE ENZYMES OF LAMPITO MAURITHI (KINBERG) GUT AND NUTRITIVE VALUE OF VERMICOMPOST (ANNELIDA : OLIGOCHETA)”** submitted by Miss J. MONISHA (Reg. No. P20ZO012) in partial fulfillment of the requirements for the M.Sc., Degree course for the academic period 2021-2022 in the subject of Zoology is the original work of the candidate.

*Dr. V. Kavitha*  
03/06/22

Signature of the HOD

வினங்கியல் துறைத்தலைவர்  
அரசினா மகளிர் கல்லூரி (தன்னாட்சி)  
கும்பகோணம்-612 001.

*V. I. The*  
02.06.22

Signature of the Guide

Examiner

- Dr. Kavitha* 10/6/2022
- V. I. The* 10/6/2022



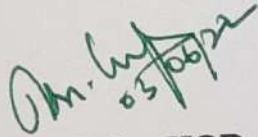


**Dr. M. GOVINDARAJAN,**  
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## Certificate

This is to certify that the dissertation entitled, "**The utilization of *Asystasia gangetica* in green synthesis of silver nanoparticles to combat the dengue vector *Aedes albopictus***" submitted by Miss. T.MONISHA (Reg. No. P20ZO013) in partial fulfilment of the requirements for the award of degree of Master of Science in Zoology during the period of 2021-2022 under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.



**Signature of the HOD**


வினங்கியல் துறைத்தலைவர்  
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கும்பகோணம்-612 001.

M.  26.05.22

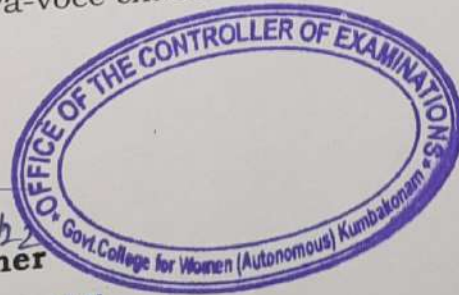
**Signature of the Guide**

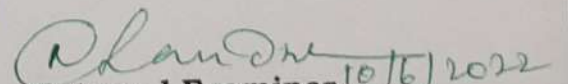
**Dr.M.GOVINDARAJAN,**  
M.Sc., M.Phil., Ph.D.,  
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Submitted for the viva-voce examination held on .10.06.2022

M.  10/6/22  
**Internal Examiner**

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**External Examiner** 10/6/2022

Dr. G. PRIYA M.Sc., M.Phil., PGDBI., Ph.D.,  
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### CERTIFICATE

This is to certify that the dissertation entitled, "BACTERIAL DIVERSITY IN THE GUT OF EARTHWORMS IN DISSIMILAR KINDS OF SOIL" submitted by Miss. S. NARMATHA (Reg. No. P20ZO014) in partial fulfillment of the requirements for the award of degree of Master of Science in Zoology during the period of 2021-2022 was done under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

*J. Priya* 03.06.22  
RESEARCH GUIDE

Examiners

- Chandrashekar* 10/6/2022
- J. Priya* 10.6.22

*S. Narmatha* 03/06/22  
HEAD OF THE DEPARTMENT

வினாயகியல் துறைத் தலைவர்  
அரசினர் மகளிர் கல்விப் பல்கலைக்கழகம் (அ.க.ப.க.)  
கும்பகோணம்





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India.



CERTIFICATE

This is to certify that the dissertation entitled,  
**“HEMATOLOGICAL STUDIES OF THE FRESHWATER  
ZOOPLANKTON MACROCYCLOPS EDAX”** submitted by Miss. P.  
PAVITHRA (Reg.No.P20ZO015) in partial fulfillment of the  
requirements for the award of degree of Master of science in  
zoology during the period of 2021-2022 was done under my  
guidance and the dissertation has previously formed the basis for  
the award of any degree, diploma, fellowship or similar title to any  
other University.

*Dr. S. Venkatalakshmi*  
05/06/22

Signature of the Guide

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Head & Associate Professor in Zoology  
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*Dr. S. Venkatalakshmi*  
05/06/22

Signature of the HOD

கிளாப்பியல் துறைத்துலைவர்  
புரட்சி மகளிர் கல்லூரி (குன்னாட்சி)  
கும்பகோணம்-612 001.

Examiners

1. *Chandrasekaran* 10/6/2022

2. *Dr. S. Venkatalakshmi*  
10/06/22







GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)  
KUMBAKONAM – 612 001

DR. S. VENKATALAKSHMI M.Sc., M.Phil., Ph.D.,  
ASSOCIATE PROFESSOR  
PG & RESEARCH DEPARTMENT OF ZOOLOGY

03-06-22 Date:

CERTIFICATE

This is to certify that the project was done under my guidance and the dissertation entitled 'PREVALENCE OF DIABETIC MELLITUS IN KOTHANALLUR TOWN AND ANTIDIABETIC EFFECT OF JAMUN (SYZYGIVM CUMINI) SEED POWDER THROUGH TRADITIONAL METHOD' submitted by K. PUJITHA (Reg. No: P20ZO016) in partial fulfillment of the requirement of the M.Sc., degree course for the Academic Period 2021– 2022 in the Subject Zoology is a critical study by the candidate.

*Dr. S. Venkatalakshmi*  
05/06/22

Signature

of the Head of the Department  
அரசினா மகளிர் கல்லூரி (குன்னாட்சி)  
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Examiner

*Dr. S. Venkatalakshmi*  
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of the Research Guide

Dr.S.Venkatalakshmi.M.Sc.,M.Phil.,Ph.D.  
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1. *Chandrasekhar*  
10/06/2022
2. *Dr. S. Venkatalakshmi*  
10/06/2022



**Dr. D.SOUMADY, Ph.D.,**

Assistant professor in Zoology,  
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## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **ANTIMICROBIAL PROPERTIES OF CHANNA STRIATUS MUCUS STABILIZED IRON OXIDE NANOPARTICLES AGAINST FRESH WATER PATHOGENS** Submitted by **R.RAJALAKSHMI** (Reg.No.P20ZO017) in partial fulfillment of the requirements of the M.Sc., Degree Course for the academic period 2021-2022 in the subject of Zoology is the original work of the candidate.

Signature of the HOD

வினாய் பி. சிவசுப்பிரமணியன்  
நிர்வாகணமகாநிதி, கல்வியறிவு (ஆண்களையல்)  
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Examiner

Signature of the Guide

**Dr. Mrs. D. SOUMADY**  
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1. @hanasud 10/6/2022

2. @hanasud 10.06.2022









Dr. V. KAVITHA., M.Sc., M.Phil., Ph.D.,  
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## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **“VERMICOMPOST OF BANANA LEAVES USING AN INDIAN EARTHWORM *LAMPITO MARURITHI* (KINBERG) (ANNELIDA: OLIGOCHAETA)”** submitted by Miss **R.R. RAMYA** (Reg. No. P20ZO019) in partial fulfillment of the requirements for the M.Sc., Degree course for the academic period 2021-2022 in the subject of Zoology is the original work of the candidate.

*Dr. V. Kavitha*  
05/06/22

Signature of the HOD

வினாயகியல் துறைத்தலைவர்  
அரசினா மகளிர் கல்லூரி (தன்னாட்சி)  
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*V. I.*  
02.06.22

Signature of the Guide

Examiner

- Dr. V. Kavitha* 10/6/2022
- V. I.* 10/6/2022



Dr. D.SOUMADY, Ph.D.,  
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## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **ANTIMICROBIAL ACTIVITY OF PILA GLOBOSA MUCUS STABILIZED IRON OXIDE NANOPARTICLES AGAINST FRESH WATER PATHOGENS** Submitted by **R.SHANMUGAPRIYA** (Reg.No.P20ZO020) in partial fulfillment of the requirements of the M.Sc., Degree Course for the academic period 2021-2022 in the subject of Zoology is the original work of the candidate.

*[Handwritten Signature]*  
05/06/22

Signature of the HOD

வினாயகியல் துறைத்தலைவர்  
அரசினா மகளிர் கல்லூரி (தன்னாட்சி)  
கும்பகோணம்-612 001.

Examiner

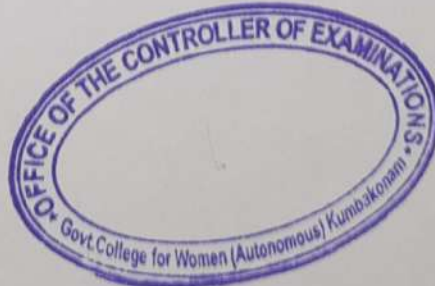
1. *[Handwritten Signature]* 10/6/2022

2. *[Handwritten Signature]*  
10.06.22

*[Handwritten Signature]*  
04.06.22

Signature of the Guide

Dr. Mrs. D. SOUMADY  
M.Sc., M.Phil., Ph.D.,  
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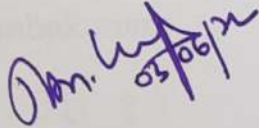
Dr. S. Venkatalakshi, M.Sc., M.Phil., Ph.D.,  
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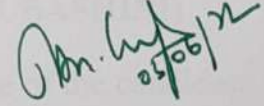
CERTIFICATE

This is to certify that the dissertation entitled,  
“HEMATOLOGICAL STUDIES OF THE FRESHWATER  
ZOOPLANKTON *THERMOCYCLOPS HYALINUS*” submitted by  
Miss. K. SUBASHINI (Reg.No.P20ZO021) in partial fulfillment of the  
requirements for the award of degree of Master of science in  
zoology during the period of 2021-2022 was done under my  
guidance and the dissertation has previously formed the basis for  
the award of any degree, diploma, fellowship or similar title to any  
other University.

  
05/06/22

Signature of the Guide

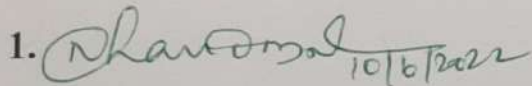
வினங்கியல் துறைத்தலைவர்  
செரசினாமகனிர் கல்லூரி (தன்னாட்சி)  
கும்பகோணம்-612 001.

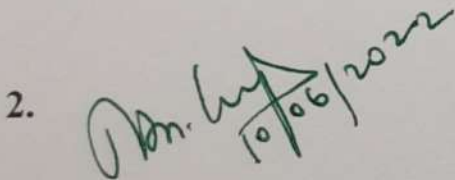
  
05/06/22

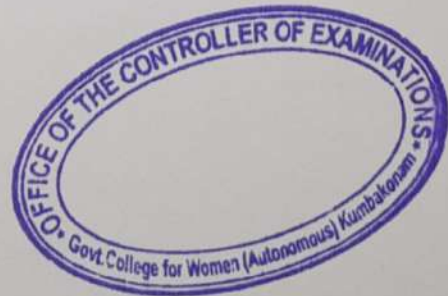
Signature of the HOD

வினங்கியல் துறைத்தலைவர்  
செரசினாமகனிர் கல்லூரி (தன்னாட்சி)  
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Examiners

1.   
10/06/2022

2.   
10/06/2022





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### CERTIFICATE

This is to certify that the dissertation **STUDIES ON LENGTH WEIGHT RELATIONSHIP OF WHITE SHRIMP, *PENAEUS INDICUS* (H. MILNE EDWARD, 1837), IN NAGAPATTINAM COASTAL WATERS, SOUTHEAST COAST OF INDIA**

Submitted in fulfillment of the requirements for the degree of Master of Science in Zoology during the period of Aug. 2021-Mar. 2022 to the Government College for Women (Autonomous), Kumbakonam. Affiliated to the Bharathidasan University, Thiruchirappali is a bonafide record work carried out by the **S. SUVETHA (Reg. No: P20ZO022)** under my supervision.

*Dr. R. Balasubramanian*  
03/06/22

*R. Babu*  
02/06/2022  
Research Guide

Head of the Department

வினாயகியல் துறைத்தலைவர்  
சென்னை மகளிர் கல்லூரி (சுன்னாட்சி)  
கும்பகோணம்-612 001.

Examiners

1. *Chandrasekhar* 10/6/2022

2. *R. Babu*  
10/06/2022



DR. K. BHAVANI M.Sc., M.Phil., B.Ed., Ph.D.,  
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## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled "**COMPARITIVE STUDY OF BIOACTIVITY OF TRIGONELLA FORNUM AND HELIANTHUS ANNUUS SPROUTS GROWN BY AQUAPONICS TECHNOLOGY**" submitted by **Miss V.VANISRI (Reg. No. P20ZO023)** in partial fulfillment of the requirements for the M.Sc., Degree course for the academic period 2021-2022 in the subject of Zoology is the original work of the candidate.

*[Handwritten Signature]*  
05/06/22

Signature of the HOD

விணங்கியல் துறைத்தலைவர்  
அரசினா மகளிர் கல்லூரி (குன்னாட்சி)  
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Examiner

- [Handwritten Signature]* 10/6/2022
- [Handwritten Signature]* 10/06/22



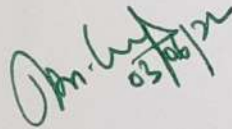


DR. V. KAVITHA., M.Sc., M.Phil., Ph.D.,  
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Kumbakonam- 612 001.



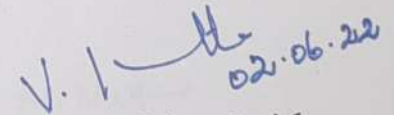
## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **“TOXICITY OF THIACLOPRID (INSECTICIDE) ON BIOMASS, BACTERIAL AND FUNGAL POPULATION OF AN INDIAN EARTHWORM, LAMPITO MAURITHI (KINBERG) (ANNELIDA : OLIGOCHETA)”** submitted by Miss **M.VINOTHINI (Reg. No. P20Z0024)** in partial fulfillment of the requirements for the M.Sc., Degree course for the academic period 2021-2022 in the subject of Zoology is the original work of the candidate.

  
03/06/22

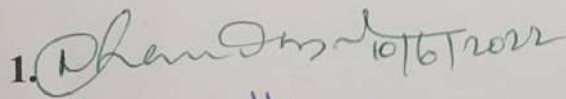
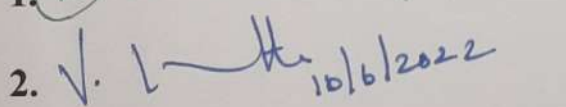
Signature of the HOD

வினங்கியல் துறைத்தலைவர்  
அரசினா மகளிர் கல்லூரி (தன்னாட்சி)  
கும்பகோணம்-612 001.

  
02.06.22

Signature of the Guide

Examiner

-   
10/6/2022
-   
10/6/2022





**DR . A. V. KAVITHA., M.Sc., M.Phil., Ph.D.,**  
Assistant Professor of Zoology,  
Government College for Women (A.)  
Kumbakonam- 612 001.



## **CERTIFICATE**

This is to certify that the project work was done under my guidance and the dissertation entitled “ **INFLUENCE OF LEAF EXTRACT OF CARICA PAPAYA (LINN.) AGAINST MERCURIC CHLORIDE INDUCED TOXICITY IN LIVER TISSUE OF FRESH WATER FISH LABEO ROHITA (HAMILTON)**” submitted by Miss **S.VINOTHINI (Reg.No.P20ZO025)** in partial fulfilment of the requirements for the M.Sc., Degree course for the academic period 2021-2022 in the subject of Zoology is the original work of the candidate.

*[Handwritten Signature]*  
03/06/22

Signature of the Head of the Department

வினாயகியல் துறைத்தலைவர்  
சிரகிணா மகளிர் கல்லூரி (தன்னாட்சி)  
கும்பகோணம்-612 001.

*[Handwritten Signature]*  
01/06/2022

Signature of the Guide

Dr. Mrs. A.V. KAVITHA, M.Sc., M.Phil., Ph.D.  
Assistant Professor in Zoology  
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Examiners

1. *[Handwritten Signature]* 10/6/2022
2. *[Handwritten Signature]* 10/6/2022



**Dr. V. KAVITHA M.Sc., M.Phil., Ph.D.,**  
Assistant Professor of Zoology,  
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Kumbakonam - 612 001.



## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled "STUDY OF BIOMASS, ENZYMES ACTIVITY OF *LAMPITO MAURITII* KINBERG DURING VERMICOMPOSTING OF *COUROPITA GUIANESIS* USING LEAVES (ANNELIDA : OLIGOCHETA)" submitted by Miss K.AARTHY (Reg. No. P21ZO001) in partial fulfillment of the requirements for the M.Sc., Degree course for the academic period 2022-2023 in the subject of Zoology is the original work of the candidate.

*[Handwritten Signature]*  
25/04/23

Signature of the HOD

**Dr. S. Venkata Lakshmi M.Sc., M.Phil., Ph.D.**  
Head & Associate Professor in Zoology  
Government College For Woman (A)  
Kumbakonam-612001.

*[Handwritten Signature]*  
25/04/23

Signature of the Guide

**Dr. V. KAVITHA, M.Sc., M.Phil., Ph.D.**  
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Examiner

1. *[Handwritten Signature]*  
26/4/23

2. *[Handwritten Signature]*  
26/4/23



**Dr. M. DEIVANAYAKI., M.Sc., M.Phil., Ph.D.,**  
Lecturer in Zoology,  
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## CERTIFICATE

This is to certify that the project work was done under my guidance and dissertation entitled “EFFECT OF DIFFERENT *TERMINALIA CATAPPA* LEAVES MEDIA ON THE GROWTH AND COCOON PRODUCTION OF *EUDRILUS EUGENIAE*” Submitted by Miss. B. ABINA (Reg.No.P21ZO002) In partial fulfilment of the requirements of the M.Sc., Degree Course for the Academic period 2022–2023 in the subject of Zoology is the original work of the candidate.

*Dr. B. Venkatalakshmi*  
25/04/23

Signature of the HOD

**Dr. B. Venkatalakshmi, M.Sc., M.Phil., Ph.D.**  
Head & Associate Professor in Zoology  
Government College For Women (A)  
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*M. Deivanayaki*  
25/04/2023

Signature of the Guide

Examiner

1. *[Signature]* 26/4/23
2. *M. Deivanayaki* 28/4/23





Dr. R. Balasubramanian, M.Sc., M.Phil., Ph.D.,  
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Mobile: 9487882215,  
E. mail: balaram\_r2@rediffmail.com

### CERTIFICATE

This is to certify that the dissertation "STUDIES ON FOOD AND FEEDING HABITS OF INDIAN MACKEREL, *Rastrelliger kanagurta* (CUVIER) 1816 AKKARAIPETTAI COASTAL WATERS, SOUTHEAST COAST OF India" Submitted in fulfillment of the requirements for the degree of Master of Science in Zoology during the period of Jul. 2022 - Mar. 2023 to the Government College for Women (Autonomous), Kumbakonam. Affiliated to the Bharathidasan University, Thiruchirappali is a bonafide record work carried out by the P.BANUMATHI (Reg. No.: P21ZO003) under my supervision.

*[Handwritten signature]*  
15/4/23

Dr. S. Venkatasubramanian, M.Sc., M.Phil., Ph.D.,  
Head & Associate Professor in Zoology,  
Government College For Women (A),  
Kumbakonam-612001.

*[Handwritten signature]*  
25/4/2023  
Research Guide

Examiners

1. *[Handwritten signature]* 26/4/23
2. *[Handwritten signature]* 26/4/2023



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Assistant Professor,  
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Kumbakonam - 612001.  
Tamil Nadu, India.  
Email: [drgovind1979@gmail.com](mailto:drgovind1979@gmail.com)  
Cell: 9585265999



## Certificate

This is to certify that the dissertation entitled, "**BIOSYNTHESIS OF SILVER NANOPARTICLES USING DIGERA MURICATA AGAINST THE DENGUE VECTOR AEDES AEGYPTI**" submitted by Miss. S. BHARATHA PRIYA (Reg. No. P21ZO004) in partial fulfilment of the requirements for the award of degree of Master of Science in Zoology during the period of 2022 - 2023 under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

*Dr. M. Govindarajan*  
25/4/23

Signature of the HOD

**Dr. Venkatalakshmi**, M.Sc., M.Phil., Ph.D.  
Head & Associate Professor in Zoology  
Government College For Women (A)  
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*H. S. S.*  
24/4/23

Signature of the Guide

Submitted for the viva-voce examination held on 26.04.2023

*[Signature]*  
26/4/23

Internal Examiner



*H. S. S.*  
26/4/23

External Examiner

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Cell: 9442647313



## Certificate

This is to certify that the dissertation entitled, "THE COMPARATIVE BIOCHEMICAL ANALYSIS OF UNIFLORAL FARM HONEY OF HIBISCUS AND TULASI ORIGIN" submitted by Miss. V. DHARANI (Reg. No. P21ZO007) in partial fulfillment of the requirements for the award of degree of Master of Science in Zoology during the period of 2022 - 2023 under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

*[Handwritten Signature]*  
25/04/23

Signature of the Guide

*[Handwritten Signature]*  
25/04/23

Signature of the HOD

Dr. S. Venkatalakshmi, M.Sc., M.Phil., Ph.D.  
Head & Associate Professor in Zoology  
Government College For Women (A)  
Kumbakonam-612001.

Examiners

*[Handwritten Signature]* 26/04/23  
*[Handwritten Signature]* 26/04/23



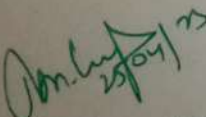
Submitted for the viva-voce examination held on 26.04.23



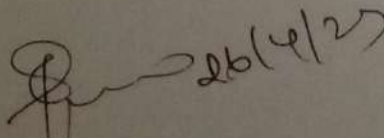
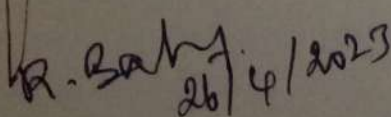
Dr. R. Balasubramanian, M.Sc., M.Phil., Ph.D.,  
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Mobile: 9487882215,  
E. mail: balaram\_r2@rediffmail.com

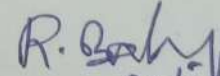
CERTIFICATE

This is to certify that the dissertation "STUDIES ON FOOD AND FEEDING HABITS OF RED SNAPPER *Lutjanus campechanus* (1860) IN AKKARAIPETTAI COASTAL WATERS, SOUTHEAST COAST OF INDIA TAMIL NADU" submitted in fulfillment of the requirements for the degree of Master of Science in Zoology during the period of Jul. 2022 to Mar. 2023 to the Government College for Women (Autonomous), Kumbakonam. Affiliated to the Bharathidasan University, Thiruchirappali is a bonafide record work carried out by the G. Gayathri (Reg. No.: P21ZO008) under my supervision.

  
Head of the Department  
**Dr. S. Venkatalakshmi** M.Sc., M.Phil., Ph.D.  
Head & Associate Professor in Zoology  
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Examiners

1.  26/4/23  
2.  26/4/2023

  
Research Guide 25/4/2023



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Phone Number : 90473 64564



## Certificate

This is to certify that the dissertation entitled, **"BIOSYNTHESIS OF SILVER NANOPARTICLES USING PUMPKIN SEEDS (CUCURBITA PEPO) EXTRACT ASSISTED ANTIBACTERIAL ACTIVITY AND CHARACTERIZATION"** submitted by Miss. S. KARPARATCHAMBIGAI (Reg. No. P21ZO009) in partial fulfilment of the requirements for the award of degree of Master of Science in Zoology during the period of 2022 - 2023 under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

Signature of the HOD

*[Handwritten Signature]*  
D. S. Venkatalakshmi, M.Sc., M.Phil., Ph.D.

Head & Associate Professor in Zoology

Govt. College for Women (A)

Kumbakonam - 612001.

Examiner

1.

*[Handwritten Signature]* 26/4/23

2.

*[Handwritten Signature]* 26/4/23

*[Handwritten Signature]* 26/04/23  
Signature of the Guide



Dr. K.BHAVANI,  
M.Sc., M.Phil., B.ED., Ph.D.,  
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## Certificate

This is to certify that the dissertation entitled, "BIOSYNTHESIS AND CHARACTERIZATION OF SILVER NANOPARTICLE USING CUCURBITA PEPO SEEDS AND ANALYSIS OF THEIR ANTIFUNGAL ACTIVITY" submitted by Miss. N.KARTHIKA (Reg. No. P21ZO010) in partial fulfilment of the requirements for the award of degree of Master of Science in Zoology during the period of 2022 - 2023 under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

*Dr. S. Venkatalakshmi*  
25/04/23

Signature of the HOD

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Submitted for the viva-voce examination held on 26.04.2023.

Examiner

- Dr. S. Venkatalakshmi*
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## CERTIFICATE

This is to certify that the project work was done under my guidance and dissertation entitled “ **EFFICACY OF EDTA AGAINST MERCURIC CHLORIDE INDUCED BEHAVIORAL CHANGES IN THE FRESH WATER FISH *LABEO ROHITA* (HAMILTON)** ” Submitted by Miss. **K.KOKILAVANI** (Reg.No.P21ZO013) in partial fulfilment of the requirements of the M.Sc., Degree Course for the academic period 2022–2023 in the subject of Zoology is the original work of the candidate.

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Examiners

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- A.V. Kavitha  
26/4/23



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## CERTIFICATE

This is to certify that the project work was done under my guidance and dissertation entitled **“EVALUATION OF THE SELECTED PLANTS AND THEIR IMPACTS ON PEST CONTROL (*CALLOSOBRUCHUS MACULATUS*)”**, Submitted by **Miss. V.MAHESHWARI (Reg.No.P21ZO014)** in partial fulfilment of the requirements of the M.Sc., Degree Course for the academic period 2022–2023 in the subject of Zoology is the original work of the candidate.

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## CERTIFICATE

This is to certify that the project work was done under my guidance and dissertation entitled "**CULTURE OF EPIGENIC EARTHWORM, *EISENIA FETIDA* UNDER BERMUDA GRASS WASTES AND EFFECTS OF BERMUDA GRASS VERMICOMPOST ON THE GROWTH OF LADYFINGER PLANT**" Submitted by Miss. N. NITHYA (Reg.No.P21ZO015) In partial fulfilment of the requirements of the M.Sc., Degree Course for the Academic period 2022-2023 in the subject of Zoology is the original work of the candidate.

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## CERTIFICATE

This is to certify that the project work was done under my guidance and dissertation entitled "**POLLEN AND BIOCHEMICAL ANALYSIS OF HONEY SAMPLES**" Submitted by **Miss. V. SATHYA (Reg.No.P21ZO016)** In partial fulfilment of the requirements of the M.Sc., Degree Course for the Academic period 2022-2023 in the subject of Zoology is the original work of the candidate.

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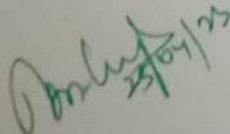


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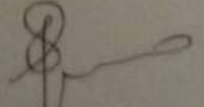

## CERTIFICATE

This is to certify that the project work was done under my guidance and dissertation entitled "EFFECTS OF THE SELECTED PLANT POWDERS FOR CONTROLLING STORED GRAIN PEST RICE WEEVIL (*SITOPHILUS ORYZAE*)" Submitted by Miss. R.SUBALAKSHMI (Reg.No.P21ZO019) in partial fulfilment of the requirements of the M.Sc., Degree Course for the academic period 2022–2023 in the subject of Zoology is the original work of the candidate.

  
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### CERTIFICATE

This is to certify that the project work was done under my guidance and dissertation entitled "EFFECTIVENESS OF GLUTATHIONE AGAINST MERCURIC CHLORIDE INDUCED EFFECTS IN FRESH WATER FISH *LABEO ROHITA* (HAMILTON)" Submitted by Miss. K. SURYA (Reg. No. P21ZO020) in partial fulfilment of the requirements of the M.Sc., Degree Course for the academic period 2022-2023 in the subject of Zoology is the original work of the candidate.

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## Certificate

This is to certify that the dissertation entitled "**Mosquito larvicidal efficacy of *Digera muricata* plant extracts against Zika virus vector *Aedes albopictus***" submitted by Miss. J. UMA (Reg. No. P21ZO021) in partial fulfillment of the requirements for the award of degree of Master of Science in Zoology during the period of 2022-2023 under my guidance and the dissertation has not previously formed the basis for the award of any degree, diploma, fellowship or other similar title to any other University.

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### CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled **BIOMASS, MICROBIAL POPULATION AND NUTRIENT ANALYSIS OF VERMICOMPOSTING OF LEAF LITTERS BY USING INDIAN EARTHWORM *L. MAURITHI* (KINBERG) (ANNELIDA : OLIGOCHETA)** submitted by Miss A.VANITHA (Reg. No. P21ZO022) in partial fulfillment of the requirements for the M.Sc., Degree course for the academic period 2022-2023 in the subject of Zoology is the original work of the candidate.

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