#### KUMBAKONAM - 612 001









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### **CRITERION I - CURRICULAR ASPECTS**

#### 1.3 Curriculum Enrichment

1.3.3 Research Projects/Internships/Field Projects

# Research Projects

## **Department of Zoology** 2018-2023

1. Details of Research Projects 2. Certificates

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# RESEARCH PROJECT DETAILS DEPARTMENT OF ZOOLOGY- 2018-2019

| SL.No  | ROLL NUMBER    | NAME                 | DETAILS OF ACTIVITY  |
|--------|----------------|----------------------|--|
| 3L.INU | ROLL INDIVIDER | IVAIVIE              |  |
|        | D1770001       | A ADINIAVACI INIDADI | ISOLATION, PURIFICATION AND CHARACTERIZATION OF  |
| 1      | P17ZO001       | A. ABINAYASUNDARI    | CHITIN FROM MARINE LONG - EYED SWIMMING CRABPODOPHTHALMUS UIGIL, FABRICIUS 1798.         |
|        |                |                      | EFFECT OF COFFEE AND TEA GROUND WASTE ON   |
| 2      | P17ZO002       | M. AKILA             | EARTHWORM BIOMASS, PHYSICO- CHEMICAL PROPERTIES  |
| _      | . 1/10001      |                      | OF VERMICOMPOST AND PLANT GROWTH   |
|        |                |                      | LOW COST AND ECOFRIENDLY EVOLUTION OF SMILAX   |
| 3      | P17ZO003       | D. AKILANDESHWARI    | ZEYLANICA L. (FAMILY: SMILACACEAE) EXTRACT AGAINST                                       |
|        | 11720003       | D. AKILANDESHWAKI    | THE DENQUE VECTOR AEDES AEGYPTI L. (DIPTERA,   |
|        |                |                      | CULICIDAE)   |
|        | D4770004       | I CHANDDALEKA        | STUDIES ON THE SILVER POMFRET, POMPUS ARGENTEUS  |
| 4      | P17ZO004       | J. CHANDRALEKA       | (EUPHRASEN 1788), NAGAPATTINAM, SOUTH EAST COAST OF INDIA.                               |
|        |                |                      | EFFECT OF MERCURIC CHLORIDE AND THE INFUENCE   |
| 5      | P17ZO005       | R. DEVIKA            | BIOENZYMOLOGICAL STUDIES ON FISH LABIO ROHITA  |
|        |                |                      | (HAM.)   |
|        |                |                      | EVOLUTION OF ANTIMICROBIAL ACTIVITY OF COW URINE   |
| 6      | P17ZO007       | M. MANJULA           | WITH NEEM (AZADIRACHTA INDICA) EXTRACT ON  |
|        |                |                      | PATHOGENIC FISH MICROBIAL STRAINS  |
| _      |                |                      | STUDIES ON THE ROHU FISH, LABEO ROHITA (HAMILTON,  |
| 7      | P17ZO008       | S. MYTHILI           | 1822) FROM FISH FORM, SWAMIMALAI, THANJAVUR DISTRICT.                                    |
|        |                |                      | EFFECT OF DURATION OF EXPOSURE FOR GIRCUD  |
| 8      | P17ZO009       | M. PRIYA             | TREATMENT ON THE COPEPOD POPULATION DENSITY  |
|        |                |                      | STUDIES ON SPECIES DISTRIBUTION AND DIVERSITY OF   |
| 9      | P17ZO010       | K. SATHYABAMA        | EARTHWOARM IN MATHAMPETTAI PALUR VILLAGE,  |
|        |                | •                    | ARIYALUR DISTRICT, TAMIL NADU  |
|        |                |                      | COMPARATIVE STUDIES OF ANTIBACTERIAL ACTIVITY OF   |
| 10     | P17ZO011       | G. SHAMINI           | ARGANIC TURMERIC AND AACHI TURMERIC AGAINST  |
|        |                |                      | SELECTED FISH PATHOGENS  |
| 11     | P17ZO012       | S. SITA              | ANTIBACTERIAL ACTIVITY OF SELECTED HERBAL AZADIRATA                                      |
|        |                | J. J. 111            | INDICA AND MELIA AZEDARACH AGAINST FISH PATHOGEN   |
| 4.5    | D4770043       | 6 604415 15111       | IMPACT OF KUMBAKONAM AYE KULAM LAKE WATER ON   |
| 12     | P17ZO013       | S. SOWNDARYA         | 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 |
|        |                |                      | LIVITATIVETING THE COFEFOR FOFULATION 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

|       | DEPARTMENT OF ZOOLOGY- 2019-2020 |                     |  |  |  |
|-------|----------------------------------|---------------------|--|--|--|
| SL.No | ROLL<br>NUMBER                   | NAME                | DETAILS OF ACTIVITY  |  |  |
| 1     | P18ZO001                         | B. AARTHI           | HEAMATOLOGICAL STUDIES OF FRESHWATER FISH LABEO<br>ROHITA (HAMILTON) EXPOSED TO DIFFERENT MEDIAN LEATHAL<br>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 COMPINATION WITH NEEM EXTRACT ON ANTIBACTERIAL ACTIVITIES AGAINST FISH PATHOGENS                                   |  |  |
| 7     | P18ZO007                         | G. NILA             | HEALYH 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.<br>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

|       | 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. АТСНАУА       | STUDIES ON PROXIMATE COMPOSITION OF MUSCLE,<br>INTESTINE, AND HEPATOPANCREAS IN SHRIMP, PENAEUS<br>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  | PRVALENCE 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/ SiO2 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<br>AND KIDNEY IN FINFISH, MUGIL CEPHALUS (LINNAEUS,<br>1758)                                   |  |

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| 14 | P19ZO014 | B. SAVITHIRI   | EFFECT OF DIFFERENT TEA POWTER 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<br>NANOPARTICLES ON FRESH WATER FISH OREOCHROMIS<br>MOSSAMBICUS   |
| 17 | P19ZO017 | G. SOFIKA      | MOSQUITO LARVICIDAL ACTIVITY OF AROMATIC GINGER<br>KAEMPFERIA GALANGAL L. (ZINGIBERACEAE) ESSENTIAL OIL<br>AGAINST FILARIASIS VECTOR CULEX QUINQUEFASCIATUS<br>(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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# RESEARCH PROJECT DETAILS DEPARTMENT OF ZOOLOGY- 2021-2022

| SL.No | ROLL NUMBER | NAME            | DETAILS OF ACTIVITY   |
|-------|-------------|-----------------|---|
| 1     | P20ZO001    | R. AKILA        | COMPARATIVE STUDY ON BIRDS ABUNDANCE OF VARIOUSN ECOSYSTEM  |
| 2     | P20Z0002    | S.ANNAPOORANI   | LARVICIDAL EFFECTS OF CALENDULA OFFICINALIS (ASTERACEAE) LEAF EXTRACTS ON THE MALARIA VECTOR ANOPHELES STEPHENSI (DIPTERA:CULICIDAE)                                  |
| 3     | P20ZO003    | К. АТСНАҮА      | A STUDY ON THE GROWTH AND COCOON PRODUCTION OF EUDRILUS EUGENIAE CULTURED IN DIFFERENT THESPESIA 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 COMPARTIVE STUDY ON POPULATION DENSITY OF BLACK<br>KITE (MILVUS MIGRANS) AND BRAHMINY KITE (HACIASTUR<br>INDUS) IN DIFFERENT HABITAT AT TAMIL NADU, INDIA           |
| 6     | P20Z0006    | N.HARIPRIYA     | BIOSYNTHESIS 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     | P20Z0008    | T. KEERTHI      | STUDIES OD 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 CHOLORIDE INDUCED NEPHROTOXICITY IN FRESH WATER FISH LABEO ROHITA (HAMILTION)                          |
| 10    | P20ZO010    | K.LAVANYA       | HELIANTHUS ANNUUS SEEDS EXTRACT ASSISTED BIO SYNTHESIS OF IRON NANOPARTICALS CHARACTERISATION AND ANTIBACTERIAL STUDY   |
| 11    | P20ZO011    | K.MONIKA        | EFFICACY OF MATRICARIA CHAMOMILLA (ASTERACEAE) ESSENTIAL OIL AGAINST FILARISIS VECTOR CULEX QUINQUE FASCIATUS (DIPTERIAL: 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 SYNTHSIS OF SILVER NANOPARTICALS TO COMBAT THE DENGUE VECTOR AEDEES 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 (SYZYGIUM CUMINI) SEED POWDER THROUGH TRADITIONAL METHOD RANTHUS ROSEUS THROUGH TRADITIONAL METHOD OF DECOCTION CONSUMPTION |
| 17 | P20ZO017 | R.RAJALAKSHMI    | ANTIBACTERIAL PROPERTIES OF CHANNA STRIATUS MUCUS<br>STRABILIZED IORN OXIDE NANOPARTICLES AGAINST<br>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 | P20Z0021 | 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 THIACLOPRID (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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|       | RESEARCH PROJECT DETAILS DEPARTMENT OF ZOOLOGY- 2022-2023 |                         |   |  |  |
|-------|---|-------------------------|---|--|--|
| SL.No | ROLL<br>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<br>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<br>LUTJANUS CAMPECHANUS (1860) IN AKKARAIPETTAI<br>COASTAL WATERS, SOUTHEAST COAST OF INDIA TAMIL<br>NADU |  |  |
| 7     | P21ZO007  | KARPARATCHAMBIGAI.<br>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<br>BERMUDA GRASS WASTES AND EFFECTS OF BERMUDA<br>GRASS VERMICOMPOST ON THE GROWTH OF LADYFINGER<br>PLANT  |
|----|----------|----------------|---|
| 12 | P21ZO012 | SATHYA. V      | Pollen and biochemical analysis of honey samples  |
| 13 | P21ZO013 | SUBALAKSHMI. R | EFFECTS OF THE SELECTED PLANT POWDERS FOR CONTROLING 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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Dr. E. Natarajan., M.Sc., M.Phil., D.F.Sc., NET (Deployment - A.U)
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, 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:P17ZOOO1) Under my supervision and guidance.

Head of the Department

Signature of the guide

1. V Dannburn. 1/4/19 2. referme

### 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.

Signature of the Guide

Signature of the HODSc., M. Phil., Ph. D.

Head & Associate Professor in Zoology Government College For Woman (A) Kumbakonam-812001.

Examiners

1. Volammahmu . 14/19.

2. V. | the 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

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.

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.

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

Internal Examiner

**External Examine** 

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

Assistant Professor

Department of Zoology



Government College for Women (A) Kumbakonam - 612 001. Thanjayur (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.

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

1. Danham. 1/4/119.

2. A. V. Kette 104/19

A.V. Katty 30/3/19 Signature of the Guide

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



## 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 guidence 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.

Signature

of the Head of the Department

of the Research Guide ( V. RAVI)

Government College For Violen (A) Kumbakonam-612001

Examiner

1. V Dandom il AF.

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.

Signature of the Guide

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 Danuam. 1104/19

2. Dave 10:4.19

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

Our chilon,

Signature katalakshmi. M.Sc., M. Phil., Ph.D. of the Head of the Department oglogy Head & Associate Project For Woman (A)

Kymbakonam-612001.

Signature of the Research Guide

Examiner

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2. 9

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 POPULATION DENSTIY" submitted by Miss. M. PRIYA COPEPOD (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 (m. Czof319 title to any other University.

Opn. Co. 30/3/10

Signature of the Guide விலங்கியல் குழுறத்தலைவர் **அரசினர் மகளிர் த**ூரரி (தன்னாட்சி) **Б**Ю С В ПРИН № 1 € 12 0.01.

Examiners

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.

2. Sontifalla

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

#### 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.

Head & Associate Professor in Zoology

Government College For Woman (A)

Examiners - Kumbakonam-612001.

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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.

Om. Mightela

Head of the Department

Dr.S. Venkatalakshmi. M.Sc., M. Phil., Ph.D.

Government College For Woman (A)

Китраколат-612001.

Examiners

1. V. Dannam. 114/17.

Signature of the Guide

Or.Mrs.D.SOUMADY

M.Sc. M.Phil Ph.D.

Assistant Professor in Zoology

Govt. College for Women (Autonomous)

Kumbakonam 612001

2. St. on en

pr. (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.

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Signature of the Guide

Assistant Professor in Zoology

Govt College for Women (Autonomals)

Kumbakonam 612001

2. Sitted

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.

( Bu. (20/2/1)

Signature of the Guide

Jan. Czof3/9

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.

Parabour, ilcell 9.

Submitted for the viva-voce examination held on .O!:.04:2019

pr. 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. Signature of the Guide

Place: Kumbakonam

Date.

Examiner

Head of the Department

Dr. S. Venkatalakshmi M. Sc., M. Phil. Ph. D. Head & Associate Professor in Zeotney Government College For Woman (A) - Kumbakonam-S12001.

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

### 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.

Health Workstalakshmi. M. Sc., M. Phil., Ph.D.

Head & Associate Professor in Zoology Government College Fer Woman (A)

Examiners Kumbakonam-612001.

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.

Om Confortion

Signature of the HOD

Dr.S. Venkatslabaheri, B Sr. et n. e. ch. D. Head & Assistant Autor &

Government Centrigs For troman (A) Kumbakonam-612001.

Examiner

1. Volambon 184/19.

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Signature of the Guide Dr. G. PRIYA

Dept of Zoology

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.

Con, rollonlie

Signature of the HOD

Government Cottege For ryoman (A)

Kumbakonam-612001.

Examiner

Signature of the Guide

Dr. G. PRIYA

Dept. of Loology.

1. Volambann 184/19.

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.

Our rights

Signature of the HOD

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

Examiner Kumbakonam-612001.

1. Valamen. 1 balla.

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M. Je 1111 30.03.2019

Signature of the Guide

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

Assistant Professor in Zoology

Govt, College for Women (Auto.)

Kumbakonam.

Date : 25...9.20.20

### 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 recordof 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.

Con (13/09/2020

A.V. Ketty og 2020 Signature of the Guide

Signature of the head of the Department

Examiners: 1.

2. Gd. hes

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, Thiruchirappali is a bonafide record work carried out by the P.AKILA (Reg. No. P18ZO002) under my supervision.

Con 12 2 dallas

Head of the Department

Research Guide

Examiners

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

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.

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

External Examiner



### 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 . 09 . 2020

#### CERTIFICATE

This is to certify that the project was done under my guidence and the dissertation entitled 'STUDIES ON THE BIODIVERSITY OF FRESHWATER FISHES FROM LOWER ANAIKARAI DAM, TAMIL NADU, INDIA' submitted by B. JAYAPRIYA (Reg. No: P1820004) 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

of the Research Guide

Examiner

1.

2.

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 "In-vitro Evaluation of Antioxidant Properties of Collagen from Marine fish, Red banded Snapper (Lutjanus submitted in partial fulfillment of the requirement for the degree of argentimaculatus)" 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

Examiners:

1. Jan 28 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: ananthizoology@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.

Chr. 327

Head of the Department

Research Guide

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.

Cours of sono.

Head of the Department

Examiners

Bd. nos / 25.4.2020 Research Guide



## 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 guidence 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.

Signature of the Head of the Department

of the Research Guide

Examiner

1.

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C3.2000

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 (ethylendiaminetetraacitic 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

Dr. A.V. KAVITHA, M.Sc., M.Phil., Ph.D., Assistant Professor

Department of Zoology
Government College for Women
Kumbakonam - 612 001.

Examiner ( ) John 1

2

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

Assistant professor,

PG& Research Department of Zoology,

Government College for Women (Autonomous),

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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, SOUTHEST 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.

Head of the Department

Research Guide

Examiners ...

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.

Signature of the HOD

Signature of the Guide

Ur.Mrs.D.SOUMADY

M Se M. Prill Ph.D Assistant Professor in Zuology Gov: College for Women (Autonomous)

Kumbakottam 612001

Examiner

1.

2.

Dr.Mrs.D.SOUMADY

MS. M. PIIII Ph.D Assistant Professor in Zoology Gov! Core : 16. Voumen (Autonomous) Kentukunam 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.

Signature of the HOD

Signature of the Guide

Examiner (

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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.

Signature of the HOD

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Assistant +1 ... July in Zu lugg VI College for Numen (Autonomous) Kumbakunam 612001



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.P18Z0018) 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.

Signature of the HOD

Signature of the Guide

Examiner

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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, Thiruchirapalli 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

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

Guest Lecturer in Zoology,

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## CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled "EFFECT OF VERMICOMPOST ON THEGROWTH 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.

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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 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.

Car confession

Signature of the HOD

Signature of the Guide

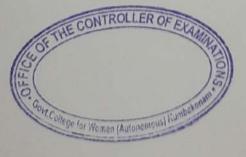
V. 1- 12/04/2021

Dr. V. KAVITHA, M.Sc., M.Phil., Ph.D.
Assistant Prefessor,
Department of Zoology,
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Examiner

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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 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.

ON. 12 1200

Signature of the HOD

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

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Seyt. College for Women(Autonomous),

Kumbakenam - 612 881.

Examiner

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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.P19Z0005) 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.

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Signature of the HOD

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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.,

Guest Lecturer,
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Kumbakonam-612 001,



#### 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.

Ou montaknowy

Head of the Department

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**Examiners** 



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

Lecturer in Zoology,

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# 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.

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Head of the Department

Signature of the Guide

**Examiners:** 

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GON College for Women (Autonomous) Kumbatonard

2. lese:

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

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## 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.

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Head of the Department

Signature of the Guide

**Examiners:** 

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

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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.

Ch. 1822/2018

Head of the Department

Examiners



Research Guide
(Dr. G. PRIYA)

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.

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Signature of the HOD

Signature of the Guide

Examiner

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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

bonafied record of work done by a ROHITA (HAM.) is 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.

Om. wylod 2021

Signature of the Head of the Department

Signature of the Guide

**Examiners:** 



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

Lecturer in Zoology,

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### 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.

Obv. Malays

**Head of the Department** 

Signature of the Guide

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Lecturer in Zoology,

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### **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.

for Women (Autonomous) Kul

Signature of the HOD

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



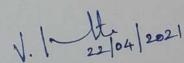
## CERTIFICATE

This is to certify that the project work was done under my guidance entitled "TOXIC EFFECT OF INSECTICIDE, dissertation and 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.

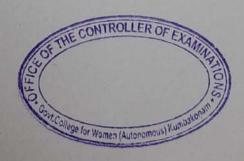
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Signature of the HOD

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



Dr. G. PRIYA M.Sc., M.Phil., PGDBI., Ph.D., Guest lecturer PG and Research Department of Zoology,

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Cell: +91 8248666103



### 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.

RESEARCH GUIDE

Examiners

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HEAD OF THE DEPARTMENT

**விலர்ப்பேல் துறைத்தலை**வர் **அரசுனா மகளிர் கல்லூரி (தன்னாட்சி)** கும்பகோணம்-612 001.



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: drgovind1979agmail.com

Cell: 9585265999



# Certificate

This is to certify that the dissertation entitled, "LARVICIDAL EFFECTS OF CALENDULA OFFICINALIS (ASTERACEAE) LEAF EXTRACTS MALARIA VECTOR ANOPHELES STEPHENSI (DIPTERA: THE CULICIDAE)" submitted by Miss. S.ANNAPOORANI (Reg. No. P20Z0002) 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.

Signature of the HOD அமைய்கியல் துறைத்த கலைவர்

த்ரசினா மகளிர் கல்லூரி (தன்னாட்டி)

DUSATIO-612 901.

Signature of the Guide

Submitted for the via-voce examination held on 10/6/2022 CONTROLLER OF ED

Internal Examin

Dr.M. GOVINDARAJI

M.Sc., M.Phil., Ph.D.

Assistant Professor of Zoology Government College for Women (A).

Kumbakonam-612001, Tamilion India

CHANDRAKALA, M.So. & Ed. M. Phil. Ph. D. Assistant Professor & Head, PG & Research Department of Zoology.

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 "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.P20Z0003) 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.

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Signature of the HOD ூரசினா மகளிர் கல்லூரி (தன்னாட்சி)

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Signature of the Guide



## GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS) KUMBAKONAM – 612 001

DR. S. VENKATALAKASHMI 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 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.

Signature

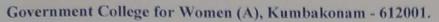
்ருச்னா மகளிர் கல்லூரி (தன்னாட்ச)

கும்பகோணம்-612 **004**. Examiner Signature

of the Research Guide

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

Assistant professor in Zoology,





#### 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.

\*College for Women (A-Annomous) Ku

Signature of the HOD

வலங்கியல் துறைத்துண்ணை **்ரத்தை மகளிர் கல்லூரி (தன்னாட்**சுர்

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Examiner

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

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1. Chandindiste

DR. K. BHAVANI M.Sc., M.Phil., B.Ed., 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 "BIOSYNTHESIS AND CHARACTERIZATION OF IRON OXIDE NANOPARTICLE USING SEEDS AND ANALYSIS OF THEIR HELIANTHUS ANNUUS ANTIFUNGAL ACTIVITY" submitted by Miss N. HARIPRIYA (Reg. No. P20Z0006) 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

விணங்கியல் துறைத்தலைவர் அரச்னா மகளிர் கல்லூரி (தன்னாட்சி) 612 001.

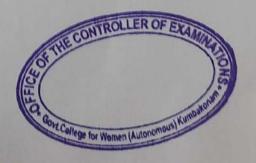
UNL 28/05/22 Signature of the Guide DY. K. BHAVANI

ASSISTANT PROFESSOR DEAT. OF TOO LOGY

GOUT. COLLEGE FOR WOMEN (A) KUMBAKONAM

Examiner

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



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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 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: P20Z0007) under my supervision.

Head of the Department

**இனங்கியல் துறைத்த**லைவர் **அரவுகார் மகனிர் கல்லூரி (தன்னாட்கி)** கும்பகோணம்-612 001.

**Examiners** 

2. R. Saly.



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

Assistant professor,

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 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.

Head of the Department

சிர்சினா மகளிர் கல்லூரி (தன்னாட்சி) கம்பகோணம்-612 001.

**Examiners** 



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2. R.2 wood /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.P20Z0009) 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.

Signature of the Head of the Department

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**Examiners** 

Signature of the Guide

Dr. Mrs. A.V. KAVITHA, M.Sc., M.Phil., Ph.C.
Assistant Professor in Zoology
Govt. College for Women (Autonomous)
KUMBAKONAM- 612 001.

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DR. K. BHAVANI M.Sc., M.Phil., B.Ed., 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 HELIANTHUS ANNUUS OF BIOSYNTHESIS EXTRACT ASSISTED SEEDS NANOPARTICLES - CHARACTERISATION AND ANTIBACTERIAL STUDY submitted by Miss K. LAVANYA (Reg. No. P20Z0010) 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

வினக்கியல் துறைத்தலைவர் அரசினா மகளிர் கல்லூரி (தன்னாட்சி) **க**ப்பகோணம்-612 001.

(AL- 28/05/22 Signature of the Guide

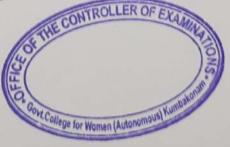
DY. K. BHAVANI ASSISTANT PROFESSOR

DEPT. OF ZOOLOGY GOUT. WILLEGE FOR WOMEN (A)

KUMBAKONAM

Examiner

1. Planons I 10/6/22 2. Waligo 10/6/22



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

Cell: 9585265999



# 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. P20Z0011) 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.

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Signature of the HOD

രിഞ്ഞ്ക്യില്ലർ ച്ചത്വെട്ട് ട്രതാവന് **அரசினர் மகளிர் க**ல்லூரி (தன்னாட்சி) (MDLICETIONED-612 001.

Signature of the Guide

Submitted for the viva-voce examination held on 10:06.2022

Internal Examiner

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

Dr. N. CHANDRAKALA, M.Sc., B.Ed., M.Phil., Ph.D., Assistant Professor & Head, PG & Research Department of Zoology, K.N. Govt. Arts College(W) Autonomous. Thanjavur - 613 007.

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 THIACLOPRID ON DIGESTIVE ENZYMES OF LAMPITO MAURITII (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.

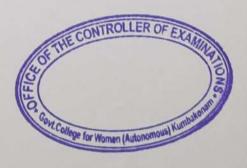
Signature of the HOD

விலங்கியல் துறைத்தலைவர் ூரச்னா மகளிர் கல்லூரி (தன்னாட்சி) 61DLIGGT 68710-612 001.

Examiner

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V. \ 02.06.22 Signature of the Guide



Dr. M. GOVINDARAJAN. M.Sc., M.Phil., Ph.D., Assistant Professor, Department of Zoology, Govt. College for Women (A), Kumbakonam - 612001. Tamil Nadu, India.

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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

விலாப் பெல் துறைத்தலைவர் ூர**ச்னா மகளிர் கல்லூரி (தன்னா**ட்சி) SULGEN (12 001.

Signature of the Guide

Submitted for the viva-voce examination held on .10.06.2022

ONTROLLER OF EXA Internal Examine ge for Women (Autonom)

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

Dr. G. PRIYA M.Sc., M.Phil., PGDBI., Ph.D., Guest Faculty, PG and Research Department of Zoology, Govt. College for Women (A), Kumbakonam-612001. E mail: jaspriya48@gmail.com

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### CERTIFICATE

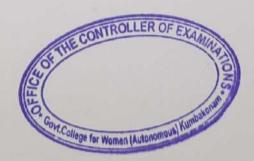
This is to certify that the dissertation entitled, "BACTERIAL DIVERSITY IN THE GUT OF EARTHWORMS IN DISSIMILAR KINDS OF SOIL" submitted by Miss. S. NARMATHA (Reg. No. P20ZO014) in partial fulfillment of the requirements for the award of degree of Master of Science in Zoology during the period of 2021-2022 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.

Examiners

HEAD OF THE DEPARTMENT

விலங்கியல் துறைக்கலைவர் அரசினர் மகளிர் கூட்ட ந்கராட்சி MILE LA CONT

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

PG & Research Department of Zoology, Government College for Women (A), Kumbakonam - 612001. Tamil Nadu, India.



#### CERTIFICATE

entitled, dissertation certify that the This THE FRESHWATER OF "HEMATOLOGICAL STUDIES ZOOPLANKTON MACROCYCLOPS EDAX" submitted by Miss. P. partial fulfillment of PAVITHRA (Reg.No.P20ZO015) in 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.

Olev posteoly

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

Signature of the HOD

விலாய்கியல் துறைத்தலைவர் அரசினா ம**களிர் கல்லூரி (த**ன்னாட்ச) டுப்பகோணம்-612 001.

**Examiners** 

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### 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 KOOTHANALLUR TOWN AND ANTIDIABETIC EFFECT OF JAMUN (SYZYGIUM 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.

Signature

of the French of the Departmentan ்ரசினா மகளிர் கல்லூரி (தன்னாட்சி) கும்பகோணம்-612 091. Examiner

1. Chandrat 10/6/3022 2. (m. h. fob)2022

Signature

of the Research Guide

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



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### CERTIFICATE

This is to certify that the project work was done under my guidance and the dissertation entitled ANTIMICROBIAL PROPERTIES 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 **விணர்கியல் துறைத்தகைவ**ள்

**துக்காமகளிர் கல்ஹார் (தன்னா**யம்)) @15UCan asmo-6/12'00'1.

Examiner

Signature of the Guide

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1. Chandy 10/6/2022



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 "A STUDY ON THE GROWTH AND COCOON PRODUCTION OF EISENIA FETIDA CULTURED IN DIFFERENT BANANA LEAVES WASTE MEDIA " Submitted by Miss.D. RAJESHWARI (Reg.No.P20ZO018) 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.

ந்கியல் துறைத்தலைவர்

Signature of the HOD

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Signature of the Guide

Examiner

1. Plandment 10/6/2022 2. M. Dill 10/6/2022



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 "VERMICOMPOST OF BANANA LEAVES USING AN INDIAN EARTHWORM LAMPITO (KINBERG) (ANNELIDA: OLIGOCHAETA)" MARURITII R.R. RAMYA (Reg. No. P20ZO019) in partial submitted by Miss 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. 1. L - St. 200. 22

Signature of the HOD

விலங்கியல் துறைத்தலைவர்

ூரச்னா மகளிர் கல்லூரி (தன்னாட்சி) கும்பகோணம்-612 001.

Examiner

1. ORand Br 10/6/2022 2. V. 1-the/6/2022



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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 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.

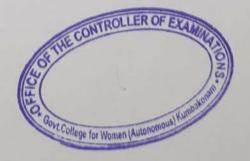
Signature of the HOD விலங்கியல் துறைத்தலைவர் ்ரகினா மகளிர் கல்லூரி (தன்னாட்சி) கம்பகோணம்-612 001.

Examiner

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Signature of the Guide

1. Chantomul 10/6/2022.



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PG & Research Department of Zoology, Government College for Women (A), Kumbakonam - 612001. Tamil Nadu. India.



#### CERTIFICATE

This 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.

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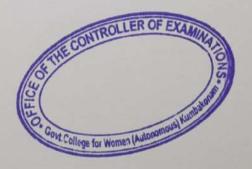
Signature of the Guide விலங்கியல் துறைத்தலைவர் **&**ரசினா மகளிர் கல்லூரி (தன்னாட்சி) சம்பகோணம்-612 001.

**Examiners** 

Martomal 10/6/2022

Signature of the HOD

விலங்கியல் துறைத்தலைவர் ்ரசினா மகளிர் கல்லூரி (தன்னாட்கு) கும்பகோணம்-612 001.



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Mobile: 9487882215,

E. mail: balaram\_r2@rediffmail.com

#### 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.

Head of the Department

விலங்கியல் துறைத்தலைவர் ்ரசினா மகளிர் கல்லூரி (தன்னாட்சி) கும்பகோணம்-612 901.

Examiners

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DR. K. BHAVANI M.Sc., M.Phil., B.Ed., 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 "COMPARTIVE STUDY OF BIOACTIVITY OF TRIGONELLAFORNUM AND HELIANTHUS ANNUUS SPROUTS GROWN BY AQUAPONICS TECHNOLOGY" submitted by Miss V.VANISRI (Reg. No. P20Z0023) 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 விணங்கியல் துறைத்தலைவர் ூரசினா மகளிர் கல்லூரி (தன்னாட்சி) கும்பகோணம்-612 001.

Examiner

1. Planto 10/6/2022 2. Waliobb2

WAL 28/05/22 Signature of the Guide

Dr. K. BHAVANI ASSISTANT AROFESSOR DEPT. OF ZOOLOGY

GOVT. COLLEGE FOR WOMEN (A)

KUMBAKONAM



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 "TOXICITY OF THIACLOPRID (INSECTICIDE) ON BIOMASS, BACTERIAL AND FUNGAL POPULATION OF AN INDIAN EARTHWORM, LAMPITO MAURITII (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.

( Burger Ja Signature of the HOD

விலங்கியல் துறைத்தலைவர் அரசினா மகளிர் கல்லூரி (தன்னாட்சி) தம்பகோணம்-612 001.

102.06.22 Signature of the Guide

Examiner

1. Phen In 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.

Ober 10 3/20/20 Signature of the Head of the Department

விலர்ப்கியல் துறைத்தலைவர் ூர்க்னா மகளிர் கல்லூரி (தன்னாட்கி)

கும்பகோணம்-612 901.

**Examiners** 

1. Chandratiolb rorr 2. A.V. Kette Noto I zorr

A.V. Kutte vilogiron Signature of the Guide

Dr. Mrs. A.V. KAVITHA, M.Sc., M. Phil., Ph.D. Assistant Professor in Zoology Govt. College for Women (Autonomous) KUMBAKONAM- 612 001.

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 "STUDY OF BIOMASS, ENZYMES ACTIVITY OF LAMPITO MAURITII KINBERG DURING VERMICOMPOSTING OF COUROPITA GUIANESISUSING 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.

Signature of the HOD

Dr.8.Venkatalakshmi. M. Sc., M. Phil., Ph. L.
Head & Associate Professor in Zoology
Government College For Woman (A)
Kumbakonam-612001.

Examiner

1. Phologon 26/4/23

Signature of the Guide



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 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.

Signature of the HOD

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

Examiner

8 -26/8/2) N. ge: M.

M. De: MM = 25/04/2023 Signature of the Guide

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

Assistant professor,

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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 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.

Hade Sthe Departmental Sc. M P'H., Pl.

Head & Associate Professo in 25 mgy

Government College For Woman (A)
Kumbakonam-612001.

Examiners

2 P. 150 4/2023

pr. M. GOVINDARAJAN,
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Tamil Nadu, India.

Email: 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.

Signature of the HOD

Jead & Associate Professor in Zoology

Government College For Woman (A)

Kumbakonam-612001.

Signature of the Guide

Submitted for the viva-voce examination held on 26.04. 2023

Internal Examiner



External Examiner

Dr. S. VENKATALAKSHMI, M.Sc., M.Phil., Ph.D.,PGDBI Head, Associate Professor, Department of Zoology, Govt. College for Women (A), Kumbakonam – 612001. Tamil Nadu, India. Email: dr.S.Vengatalakshmi@gcwk.ac.in 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 amidlar title to any other University.

Open with

20/ 6/22

Signature of the Cult-

Signature of the HOD

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



26.04.23

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

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Kumbakonam-612 001.

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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 M.Sc., M.Phil., Ph.D.

Head & Associate Professor in Zoolugy Government College For Woman (A) Kumbakonam-612001.

Examiners

R. Balof 10/2023



Dr. K. BHAVANI,

M.Sc., M.Phil., B.Ed., Ph.D.,

Assistant Professor,

Department of Zoology,

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Kumbakonam - 612001. Tamil Nadu, India.

Email id : sainisanth2016@gmail.com

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. P21Z0009) 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

oniversity.

Signature of the HOD

10.6 Jenkatalakshmi. M. Sc., M. Phil., Phil.

10.6 Jenkatalakshmi. M. Sc., M. Sc., M. Phil.

10.6 Jenkatalakshmi. M. Sc., M. Sc., M. Phil.

10.6 Jenkatalakshmi. M. Sc., M. Sc

Govern Gran (A)

Examiner '

1 8 26/4/23

2. KAL-26/4/23



Signature of the Guide

Dr. K.BHAVANI, M.Sc., M.Phil., B.ED., Ph.D., Assistant Professor, pepartment of Zoology, Govt. College for Women (A), Kumbakonam - 612001. Tamil Nadu, India. Email:sainisanth2016agmail.com Cell: 9047364564



# Certificate

This is to certify that the dissertation entitled, "BIOSYNTHESIS AND CHARACTERIZATION OF SILVER NANOPARTICLE USING CUCURBITA PEPO SEEDS AND ANALYSIS OF THEIR ANTIFUNCAL 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.

Signature of the HOD

Dr.S. Ferkatalakshmi, M.Sc. M. T. J. P. D. Bead & Associate Profes

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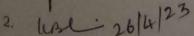
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Signature of the Guide

Submitted for the viva-voce examination held on 26.04.2023.

Examiner

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Dr.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 dissertation entitled " EFFICACY OF EDTA AGAINST MERCURIC CHLORIDE INDUCED BEHAVIORAL CHANGES IN THE FRESH WATER FISH LABEO ROHITA (HAMILTON) " Submitted by K.KOKILAVANI Miss. (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.

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

Examiners

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Dr.S.S. PADMAPRIYA., M.Sc., M.Phil., Ph.D., Lecturer in Zoology Government College for Women (Autonomous), Kumbakonam-621 001.



### **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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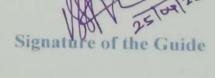
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#### **CERTIFICATE**

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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Signature of the HOD
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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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Examiner

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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 CONTROLING 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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Signature of the Head of the Department Dr. 8 Yenkatalakshmi, M. Sc., M. Phil., Ph. D. Head & Associate Professor in Zoolony

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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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Dr. A.V. KAVITHA. M. Sc., M. Phil., Ph. D., Assistant Professor, PG & Research Department of Zoology, Government College for Womeni/Autonomous), Kumbakonam - 612 001.

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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.

Signature of the HOD

Dr.S. Venkatalakshmi M.Sc., M.Phil., Ph. A.

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Submitted for the via-voce examination held on 26:04.2023



External Examiner

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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 BIOMASS, MICROBIAL POPULATION AND NUTRIENT ANALYSIS OF VERMICOMPOSTING OF LEAF LITTERS BY USING INDIAN EARTHWORM L. MAURITH (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.

Signature of the HOD

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