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## CERTIFICATE

This is to certify that the dissertation entitled "SURVEY OF AVIAN FAUNA IN MANIVILUNDHAN, SALEM, TAMILNADU, INDIA" is a bonafide record of research work done by ARUN M., Reg. No. 20PZO01, submitted to Thanthai Periyar Government Arts And Science College (Autonomous), Tiruchirappalli, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN ZOOLOGY during the year 2020-2022 in the Department of Zoology, under my guidance and supervision. The dissertation has not previously formed the basis for the award to the candidate of any Degree, Diploma, Associateship, Fellowship or any other

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## CERTIFICATE

This is to certify that the dissertation entitled " Analysis Of Water Quality Parameters Of Ponnaniyar Dam In Karur District Of Tamilnadu" India submitted by Mr. B. DILIP (Reg. No. 20PZO02) in partial fulfillment of the requirements for Post Graduate Degree in Zoology is his original work, based on the observations carried out independently by him during the period of study under my guidance and supervision. This is also to certify that the above dissertation has not previously formed the basis for the award of any degree, diploma, associate ship, fellowship or other similar title.

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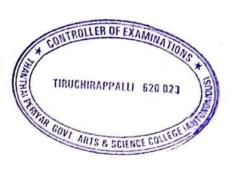
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# <u>CERTIFICATE</u>

This is to certify that this project work entitled "Study on Bacterial cellulose produed by Bacillus subtilis bacteria before and after cold storage" submitted to Thanthai Periyar Government Arts and Science College (Autonomous) by V. Gunasekar (Reg.No: 20PZO04) is in partial fulfillment of the requirements for the award of the degree of Master of Science by the BHARATHIDASAN UNIVERSITY, Thiruchirapalli. This is a bonafide work carried out by him under my supervision and guidance during the academic year 2020 – 2022.

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# **CERTIFICATE**

This to certify that the dissertation entitled "BUTTERFLY **BIODIVERSITY** IN THIYAGADURGAM HILLS FROM KALLAKURICHI DISTRICT, TAMIL NADU, INDIA" is the bonafide research work carried out by M.KOMATEESWARAN (Register No:20PZO05) in partial fulfillment of the requirement for the award of degree of MASTER OF SCIENCE IN ZOOLOGY during the year 2021-2022. Is this his him original research work, based on the observation carried out independently by her during the period of study under my guidance and supervision. It is also certified that the above dissertation has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or any other similar tile.

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## CERTIFICATE

This is to certify that the dissertation entitled "Study on Water Quality Parameters of Gomukhi Dam in Kallakurichi District of Tamil Nadu, India" submitted by Mr. K.MADHANKUMAR (Reg. No. 20PZO06)in partial fulfillment of the requirements for Post Graduate Degree in Zoologyis his original work, based on the observations carried out independently by him during the period of study under my guidance and supervision. This is also to certify that the above dissertation has not previously formed the basis for the award of any degree, diploma, associate ship, fellowship or other similar title.

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This is to certify that this project work entitled "FTIR Characterization of Cellulose produced by Bacillus subtilis bacteria using different carbon source" submitted to Thanthai Periyar Government Arts and Science College (Autonomous) by P. Madheshwaran (Reg.No: 20PZO20) in partial fulfillment of the requirements for the award of the degree of Master of Science by the BHARATHIDASAN UNIVERSITY, Thiruchirapalli. This is a bonafide work carried out by him under my supervision and guidance during the academic year 2020 – 2022.

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This is to certify that the dissertation entitled "Observations on Population ecology and foraging behavior of bonnet macaque (Macaca radiata) from the tourist destination Of Mukkombu, Trichirappalli, Tamilnadu" submitted by Mr. P. NAVEEN (Reg. No. 20PZO08) in partial fulfillment of the requirements for Post Graduate Degree in Zoology is his original work, based on the observations carried out independently by him during the period of study under my guidance and supervision. This is also to certify that the above dissertation has not previously formed the basis for the award of any degree, diploma, associate ship, fellowship or other similar title.

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#### CERTIFICATE

This is to certify that the dissertation entitled "A Preliminary Qualitative Analysis of Planktonic Diversity on Singalandapuram Lake, Trichirappalli, Tamil Nadu" submitted by PIRUTHIVIRAJAN S (Reg. No. 20PZO09) in partial fulfillment of the requirements for Post Graduate Degree in Zoology is his original work, based on the observations carried out independently by him during the period of study under my guidance and supervision. This is also to certify that the above dissertation has not previously formed the basis for the award of any degree, diploma, associate ship, fellowship or other similar title.

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## CERTIFICATE

This is to certify that the dissertation entitled "IMPACT OF PROBIOTIC COSORTIUM AQUALACT ON LIVER AND KIDNEY MARKERS OF OREOCHROMIS MOSSAMBICUS" submitted by Mr.R.PRADEEP BSc., in partial fulfillment of the requirements for Post Graduate Degree in Zoology, is her original work, based on the observations carried out independently by her during the period of study under my guidance and supervision. This is also to certify that the above dissertation has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or other similar title.

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This is to certify that the dissertation entitled "EFFECTS OF SPIRULINA ON THE GROWTH PARAMETERS AND BIOCHEMICAL CONTENT OF OREOCHROMIS MOSSAMBICUS" submitted by Mr. S.RISHIKARAN, BSc., in partial fulfillment of the requirements for Post Graduate Degree in Zoology, is her original work, based on the observations carried out independently by her during the period of study under my guidance and supervision. This is also to certify that the above dissertation has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or other similar title.

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# DEPARTMENT OF ZOOLOGY CERTIFICATE

The project work embodied in this dissertation entitled "BIODEGRADATION OF PAPER MILL TREATED EFFLUENT USING INDIGENOUS EARTHWORM "LAMPITO MAURITIF" has been carried out by Mr. SRIRAM.S (Reg.No:20PZO13) in the PG and Research Department of Zoology, Thanthai Periyar Government Arts and Science College (Autonomous), Trichirappalli-620 023 affiliated to BHARATHIDASAN UNIVERSITY, TRICHIRAPALLI. The work is original and has not been submitted in part or full to any other degree or diploma of any university.

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Date:

#### CERTIFICATE

This is to certify that the dessertation entitled mtDNA 9bp deletion and its impact on the Tobacco users in Eight Dravidian Tribal populations of south India is a bonafide record of research work done by Mr. P.Yuvaraj (Reg No: 20PZO14), submitted to Periyar EVR College (Autonomous), Tiruchirappalli, in partail fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN ZOOLOGY during the year 2020 to 2022 in the Department of Zoology, under my guidance and supervision. The dessertation has not previously formed for the basis for the award to any candidate for any Degree, Diploma, Associateship, fellowship or any other similar titles.

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Dr.S. UMAMAHESWARI, M.Sc. M.Phil., Ph.D.,
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polymorphisms on Diabetes in eight Tribal populations of south India" is a bonafide record of research work done by Mr. A.Arockiyasheeba (Reg No: 20PZO15), submitted to Thanthai Periyar Govt Arts And Science College (Autonomous), Tiruchirappalli, in partail fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN ZOOLOGY during the year 2020 to 2022 in the Department of Zoology, under my guidance and supervision. The dessertation has not previously formed for the basis for the award to any candidate for any Degree, Diploma, Associateship, fellowship or any other similar titles.

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This is to certify that the dissertation entitled "A study on Distribution of Grasshoppers in Grassland and Agriculture felids of Kovilpatti Village Tiruchirappalli District, Tamil nadu".submitted by (GAYATHRI.S 20PZO17) in partial fulfillment of the requirements for Post Graduate Degree in Zoology is his original work, based on the observations carried out independently by him during the period of study under my guidance and supervision. This is also to certify that the above dissertation has not previously formed the basis for the award of any degree, diploma, associate ship, fellowship or other similar title.

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## CERTIFICATE

This is to certify that the dissertation entitled "EFFECTS OF SPIRULINA ON THE GROWTH PARAMETERS AND BIOCHEMICAL CONTENT OF OREOCHROMIS MOSSAMBICUS" submitted by Ms. A. JANAPRIYANKA, BSc., in partial fulfillment of the requirements for Post Graduate Degree in Zoology, is her original work, based on the observations carried out independently by her during the period of study under my guidance and supervision. This is also to certify that the above dissertation has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or other similar title.

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This is to certify that this project work entitled "Comparision of FTIR spectra of Bacterial cellulose produced by Bacillus licheniformis using different carbon sources" submitted to Thanthai Periyar Government Arts and Science College (Autonomous) by Miss. S. Poornima (Reg.No: 20PZO20) in partial fulfillment of the requirements for the award of the degree of Master of Science by the BHARATHIDASAN UNIVERSITY, Thiruchirapalli. This is a bonafide work carried out by her under my supervision and guidance during the academic year 2020 – 2022.

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#### CERTIFICATE

This is to certify that the dessertation entitled Mitochondrial DNA 9bp deletion diversity and hypertension in eight Tribal Population of South India is a bonafide record of research work done by Mr C.SUGANYA (Reg No: 20PZO21), submitted to Thanthai Periyar Govt Arts And Science College (Autonomous), Tiruchirappalli, in partail fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN ZOOLOGY during the year 2020 to 2022 in the Department of Zoology, under my guidance and supervision. The dessertation has not previously formed for the basis for the award to any candidate for any Degree, Diploma, Associateship, fellowship or any other similar titles.

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This is to certify that the dissertation entitled "VERTEBRATE FAUNAL SURVEY IN KOVILPATTI, THIRUCHIRAPPALLI, TAMILNADU, INDIA" is a bonafide record of research work done by VANAJA S., Reg.No.20PZO22, submitted to Thanthai Periyar Government Arts And Science College (Autonomous), Tiruchirappalli, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN ZOOLOGY during the year 2020-2022 in the Department of Zoology, under my guidance and supervision. The dissertation has not previously formed the basis for the award to the candidate of any Degree, Diploma, Associateship, Fellowship or any other similar titles.

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The project work embodied in this dissertation entitled "STUDY OF "POLY CYSTIC OVARIAN DISEASE" (PCOD) AMONG THE GIRL STUDENTS OF THYANTHAI PERIYAR GOVERNMENT ARTS AND SCIENCE COLLEGE, TRICHIRAPALLI" has been carried out by Ms. VIMALA. P (Reg.No:20PZO23)in the PG and Research Department of Zoology, ThanthaiPeriyar Government Arts and Science College (Autonomous), Trichirappalli-620 023 affiliated to BHARATHIDASAN UNIVERSITY, TRICHIRAPALLI. The work is original and has not been submitted in part or full to any other degree or diploma of any university.

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