

#### P.G Department of Zoology

Kendrapara Autonomous College, Kendrapara

#### AN PROJECT REPORT ON

## COMMON ODONATE ON COSTALAND INLAND AREA OF KENDRAPARA DISTRICT

An project report submitted to P.G Department of Zoology,

Kendrapara Autonomous College, Kendrapara as requirement for master degree of Science in Zoology.

A dissertation is submitted in fulfillment of

Requirement for the award of the degree of

Master of science in zoology

By: Truptiranjan Diani

Roll no: M.sc-zoology-22-001

Contact: 9853293624

Paper: Ecology

Under the supervision: Mr. Prasant kumar Sahoo assistant professor Department of Zoology Kendrapara Autonomous College, Kendrapara 2024

#### Certification

This is certify that the work contained in thesis entities'COMMON ODONATAN (Dragonflies and Damselflies)faunaof kendraparaDist, Odisha,India.Submitted by:TruptiranjanDiani(Roll No:M.Sc / Zoology / 22-001) for the award of degree of master of Master of Science in Zoology to the Department of Zoology under Kendrapara Autonomous College, Kendrapara.record of bonafide research work carried out by him under my direct supervision and guidance. I considered that the thesis has reached the standards and fulfilling the requirement of others rules and regulations relating to the Master of Science in Zoology.

Date:

Place: Kendrapara Autonomous College, Kendrapara

Signature of

Supervision

Signature of

Head of Department

Signature of

External Evaluator

External

#### Abstracts:

The Present paper deals with a study of diversity of odonatesof Kendrapara Dist. Odisha, India. As we know odonates are considered to be indicator of ecological balance. The study is conducted during four month from 1st March 2024 to 1st July2024. Total 10 stations are randomly selected as study sites. Total 18 species of odonates belonging to 03 families were recorded during the study period. The family Libellulidae with 13 species is the most dominant among the anisoptera (dragon fly) followed by Aeshnidae (03 spe.) and Gomphidae (02 spe.). Among the Zygoptera (damselflies), the family Coenagrionidae with 04 species was belong to family coenagrionidae (04spe). The richness index (Margalef's index) shown that the species richness is maximum in the site S1-village pond area (5.728). Minimum richness is found in site S10, town area (1.800). Among all the species of odonates the Pantalaflavescens is found to be abundant (22.80%)The results are analyzed with present available literature. Ditch jewel (brachythemis contaminate) was most frequently sighted in the water bodies near human habitations, indicating highly polluted water not suitable for human consumption, whereasspecies like common clubtail (ictiongomphusrapax)were only recorded along hill stream, including unpolluted area.

**Keywords**; odonatadiversity, bioindicators, water bodies, hill stream, human dominated landscape, Rajnagar block, odonotes diversity, richness, aboundant

## DIVERSITY OF ODONATES IN SELECTED BLOCKS OF KENDRAPARA DISTRICT, ODISHA

Project Report Submitted in partial fulfillment of MSc in Zoology,

2024

Guided By:

Prasanta Kumar Sahoo

Lecturer in Zoology

Submitted By:

Dipti Mohanty(MSc /Zool /22-002)



#### PG DEPARTMENT OF ZOOLOGY

KENDRAPARA AUTONOMOUS COLLEGE, KENDRAPARA

Session: 2022-2024

AFFLITION TO UTKAL UNIVERSITY, ODISHA



#### KENDRAPARA AUTONOMOUS COLLEGE, KENDRAPARA-754211 ODISHA

#### **CERTIFICATE**

This is to certify that the project entitled "DIVERSITY OF ODONATES IN SELECTED BLOCKS OF KENDRAPARA DISTRICT" to KENDRAPARA AUTONOMOUS COLLEGE, KENDRAPARA for the partial fulfilment of Post Graduation of science in zoology during session 2022-2024 in Department of zoology is an authentic work and a record of bonafied project work carried out Dipti Mohanty under supervision and guidance of Mr Prasanta Kumar Sahoo.

The work reported herein original and has not been submitted in part or full to any other institution.

Signature and Date of

Signature and Date of

Project Guide

Head ,

Department of zoology

Signature and Date of

External evaluator

External

The present study aimed to assess the Odonata fauna of Kendrapara District of Odisha, Eastern India, conducted during March and April. A total of 22 surveys were carried out at seven different sites. The research documented 26 Odonata species, comprising 22 dragonfly species (Anisoptera) and 4 damselfly species (Zygoptera). Within the dragonflies, the family Libellulidae was notably predominant, with 19 species. Among the damselflies, the family Coenagrionidae was well-represented with 3 species. The research highlights the necessity for continued investigation into the lesser-known insect fauna within the district to better understand and monitor their population dynamics over time.

Key words- Anisoptera, coenagrionidae, damselflies, dragonflies, Zygoptera.

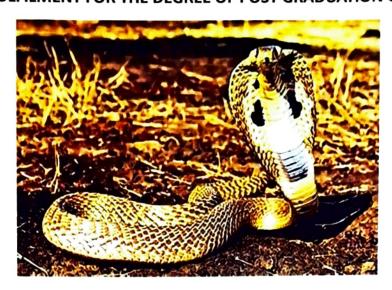
#### **SNAKE BITE DEATHS: AN ALARAMING CONCERN IN**

#### **BALASORE DISTRICT**

**PROJECT REPORT SUBMITTED** 

**FOR THIS** 

PARTIAL FULFILMENT FOR THE DEGREE OF POST GRADUATION OF SCIENCE



**SUBMITTED BY-**

Priyanka Priyadarshani Das

Guided by-Dr. Gouraprasad Sarangi



#### **DEPARTMENT OF ZOOLOGY**

KENDRAPARA AUTONOMOUS COLLEGE,KENDRAPARA
Session: 2022-2024
AFFLITION TO UTKAL UNIVERSITY, ODISHA

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This is to certify that the project entitled "SNAKE BITE DEATHS: AN ALARAMING CONCERN IN BALASORE DISTRICT" to KENDRAPARA AUTONOMOUS COLLEGE, KENDRAPARA for the partial fulfilment of post graduation of science in zoology during session 2022-2024 in Department of zoology is an authentic work and a record of bonafied project work carried out by Priyanka Priyadarshani Das under my supervision and guidance.

The matter and result embodied in the project has been submitted to any other institute for the award of any degree and diploma.

Chaus

Signature of supervision

**DESIGNATION: HOD in zoology** 

Kendrapara Autonomous College, Kendrapara

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#### **ABSTRACT**

Snakes do not generally attack human beings unless provoked. However, once bitten, a wide spectrum of clinical manifestations may result. The emphasis should be on early adequate medical management. Delayed medical management and lack of public awareness results in prolonged hospitals and ICU stay patients. This can be decreased if regular public programmes regarding prevention, prehospital management (first aid), and the importance of early transfer to hospital are conducted. Overemphasis is on reducing the load of snake venom in the victim during prehospital management can be dangerous because it role is debatable and too much valuable time is wasted in its administration. Most of the traditional methods for first aid treatment of snakebite, both western and "traditional/herbal", have been found to result in more harm than good. Identification of the species of snake responsible for the bite is important for optimal clinical management. Antivenom is the only effective antidote for snake venom. However, it is expensive and usually in short supply and its use carries the risk of potentially dangerous reactions.

#### **APICULTURE FOR SUSTINABLE AGRICULTURE**

Project report submitted for partial fulfilment of 4<sup>th</sup> Semester PG Science (Zoology) Examination-2024.

Submitted by –
Simran Mallick

Guided by –

Dr. Goura Prasad Sarangi

Reader in Zoology



DEPARTMENT OF ZOOLOGY

KENDRAPARA AUTONOMOUS COLLEGE, KENDRAPARA,

SESSION-2022-2024

Certified that project report on "APICULTURE FOR SUSTAINABLE AGRICULTURE" was carried out by Simran Mallick (Msc/ZOOL/22-005) of 4<sup>th</sup> Semester PG science(Zoology) under my guidance and supervision. This project was submitted as a part of partial fulfilment of 4th semester of PG science Examination, 2024 for paper-404.

This is an original piece of work and has not been submitted to any university/college earlier.

Dr Goura Prasad Sarang

Reader in Zoology

Kendrapara Autonomous college

Kendrapara

#### Introduction

Apiculture, commonly known as beekeeping, is the practice of managing honeybee colonies to attain desired outcomes such as honey production, pollination of crops, and other hive products like beeswax, propolis, pollen, and royal jelly. Apiculture has been practiced for centuries and has evolved from traditional methods to modern commercial practices. This project report aims to provide a comprehensive understanding of apiculture, including its historical background, significance, techniques, market potential, challenges, and sustainability.





#### P.G Department of Zoology

Kendrapara Autonomous College, Kendrapara

#### A PROJECT REPORT ON 'MOTH DIVERSITY OF GARAPUR, KENDRAPARA'

An project report submitted to P.G. Department of Zoology,

Kendrapara Autonomous College, Kendrapara as requirement for master degree of Science in Zoology

A dissertation is submitted in fulfillment of

Requirement for the award of the degree of

Master of science in Zoology

By: Mahesh Kumar Bedanta

Roll no: M.sc/zoology/22-006

Contact: 9078359983

Paper: Ecology

Under the supervision: Mr. Prasant kumar Sahoo assistant professor Department of Zoology Kendrapara Autonomous College, Kendrapara 2024

#### Certification

This is certify that the work contained in thesis entities MOTH DIVERSITY OF GARAPUR, KENDRAPARA, Odisha,India.Submitted by: Mahesh kumar Bedanta (Roll No:M.Sc / Zoology / 22-006) for the award of degree of master of Master of Science in Zoology to the Department of Zoology under Kendrapara Autonomous College, Kendrapara record of bonafide research work carried out by him under my direct supervision and guidance. I considered that the thesis has reached the standards and fulfilling the requirement of others rules and regulations relating to the Master of Science in Zoology.

Date:

Place: Kendrapara Autonomous College, Kendrapara

Signature of

Supervision Head of Department

External Evaluator

External

Signature of

#### Abstract

We present a list of 23 species of moths recorded during surveys conducted over 31 survey nights during a 3-month period in Garapur, near Kendrapara Autonomous College, Kendrapara (latitude 20°31'6" N, longitude 86°25'3" E), Odisha, India. This region exhibits a tropical climatic condition with high humidity and rainfall after the onset of the monsoon, contributing to the rich diversity of Lepidopterans. Moths, being mostly nocturnal pollinators, play a vital role in the pollination of various plant species and their seed production. Additionally, they serve as both prey and predator in the food chain, highlighting their ecological importance. This illustrated checklist of 23 species includes notes on flight periods and distribution. Notably, six range extensions were recorded, with five new records for the region. The study underscores the significance of moths in the ecosystem, their interactions with other species, and the necessity of life history studies and identification of larval host plants for non-pest species from a conservation perspective.

# "FAUNAL DIVERSITY OF KAPILAS WILDLIFE SANCTUARY DHENKANAL"



#### Kendrapara Autonomous College, Kendrapara

A dissertation submitted to PG Department of Zoology, Kendrapara Autonomous College under Utkal University in fulfillment for the degree of

#### Master of Science in Zoology

**By: Preetam Samant** 

Roll No: M.Sc./Zool./22-009

Under the Guidance: Dr. Goura Prasad Sarangi (HOD)

**PG Department of Zoology** 

Kendrapara Autonomous College, Kendrapara

Session-2022-2024

CERTIFICATION

This is to certify that the thesis entitled "FAUNAL DIVERSITY OF

KAPILAS WILDLIFE SANCTUARY DHENKANAL" has been submitted by

Preetam Samant (Roll no: M.Sc./Zool./22-009) for the award of degree

of Master of Science in Zoology to the PG Department of Zoology under

Kendrapara Autonomous College, Kendrapara record of bonafide research

work carried out by him under my direct supervision and guidance. I

considered that the thesis has reached the standards and fulfilling the

requirement of others rules and regulations relating to the Master of

Science in Zoology.

Date: 20/07/29

Place: Kendrapara Autonomous College, Kendrapara

Guide

**Head of Department** 

Signature of

**External Evaluator** 

External

The Present thesis deals with a study of diversity of fauna in Kapilas wildlife Sanctuary of Dhenkanal district, Odisha, India. The study is conducted during March and April month of 2024. In the deer park I have found different reptiles, birds and mammals. In the sanctuary various animals and birds are found in wild. The behavior and morphology of animals and birds are studied extensively. Data are taken regarding their species richness and abundance. Important fauna include Asian elephant, Bengal fox, Golden jackal, Gray langur, Indian crested porcupine, Indian giant squirrel, Indian peafowl, Sambar deer, Striped hyena, Wild boarand various varieties of birds, snakes, lizards etc. The number of animals belonging to endangered species and species other than endangered are listed properly.

Key word- Kapilas, wildlife sanctuary, deer park, endangered species

# KENDRAPARA KENDRAPARA



#### **PG DEPARTMENT OF ZOOLOGY**

#### PRACTICAL RECORD

#### **SUBMITTED BY:-**

NAME:- SHRADHANJALI PAL

CLASS:- M.sc 2<sup>nd</sup> YEAR

ROLL NO. :- MSC/ZOOL/22-010

**PAPER- 405** 

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# KENDRAPARA AUTONOMOUS COLLEGE KENDRAPARA

**SESSION 2022-2024** 

Certified that project report on "EDIBLE MARINE FISHES OF PARADEEP" was carried out by Shradhanjali pal (Msc/ZOOL/22-010) of 4th semester PG science(Zoology) under my guidance and supervision. This project was submitted as a part of partial fulfilment of 4th semester of PG science Examination, 2024 for paper-404

This is an original piece of work and has not been submitted to any university/college earlier.

External

**Dr Goura Prasad Sarangi** 

Reader in Zoology
Kendrapara Autonomous college
Kendrapara

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The present study was carried out for analysis of edible marine fishes in fishing harbour of paradeep, odisha. The study was performed during the period of march2024 to April 2024.

Marine fishes are known to be a good quality source of protein and rich in essential amino acids. Moreover, it contains high amount of monounsaturated and polyunsaturated fatty acids that might favourably improve lipid profiles and reduce risk of coronary heart disease (CHD). The present study was carried out to determine the nutritional evaluation of raw marine fishes of Landing site and market. The result shows that **Sole fish** is protein-rich, which can increase satiety and help reduce calorie intake. Red snapper is a game fish with mildly sweet, flaky skin that is often faintly pink in color. It's rich in protein and provides essential nutrients. The consumption of barracuda fish helps in the fast building of muscle mass in the body due to its protein content. It is rich in Vitamin B2 which helps in the proper functioning of the body. Vitamin B2 is also essential in preventing high blood pressure, diabetes, cardiovascular diseases, and even insomnia. Nemipterus virgatus is an important target species for commercial fisheries in the east China Sea and South China Sea. Stingray fish is rich in minerals such as Vitamin B12 and Vitamin D and has a 20% Protein content. Exceptional taste and texture like meat.

Topic Title KENDRAPARA AUTONOMOUS COLLEGE

#### KENDRAPARA



#### PG DEPARTMENT OF ZOOLOGY

#### PRACTICAL RECORD

#### **SUBMITTED BY:-**

NAME:- BISHNUPRIYA PAL

CLASS:- M.sc 2nd YEAR

**ROLL NO.:- MSC/ZOOL/22-011** 

**PAPER- 405** 

# KENDRAPARA KENDRAPARA

**SESSION 2022-2024** 

Certified that project report on "DIVERSITY OF LEPIDOPTERA (BUTTERFLY) FUNA OF STATE BOTANICAL GARDEN OF BHUBANESWAR,KHORDA DISTRICT,ODISHA,INDIA" was carried out by Shradhanjali pal (Msc/ZOOL/22-011) of 4th semester PG science(Zoology) under my guidance and supervision. This project was submitted as a part of partial fulfilment of 4th semester of PG science Examination, 2024 for paper-404

This is an original piece of work and has not been submitted to any university/college earlier.

External

Dr. Basanti Sukla

Reader in Zoology

Kendrapara Autonomous college

Kendrapara

Butterflies play vital role in the ecosystem, there is co-evolutionary relationship between butterflies and

plants, their lives are interlinked. Butterflies are also called flying flower, displaying its beauty. These

insects enhance the aesthetic value of the environments by their exquisite wing colors. Butterflies are the

wild indicators of the ecosystem; these insects tell us everything about the healthier ecosystem. These are

effective pollinators, butterflies visit the flower to eat nectar and this is mutually beneficial relationship.

Some species of butterflies migrate over long distance; carry pollen to be shared across plants which are

far apart from one another. This migration of pollens induces genetic variation in plants species and give

a better chance at survival against different disease. These insects also provide food for other organisms,

for example; birds, reptiles amphibians and also acts as biological pest control. But the population of

these insects decline rapidly due to human activities, habitat destruction, uses of pesticides and

unawareness of people about the importance of flying flowers.

## IMPACT OF POLLUTANTS ELIMINATED FROM DIFFERENT INDUSTRIESON HUMAN HEALTH IN PARADEEP, JAGATSINGHPUR

Project report submitted for partial fulfilment of 4th semester PG science (Zoology)Examination-2024

Submitted by -

MANOGYNA MANOSWINI

Guided By-

**Dr Goura Prasad Sarangi** 

Reader in Zoology



# DEPARTMENT OF ZOOLOGY KENDRAPARA AUTONOMOUS COLLEGE KENDRAPARA, ODISHA, 754211

Certified that project report on "IMPACT OF POLLUTANTS ELIMINATED FROM DIFFERENT INDUSTRIES ON HUMAN HEALTH IN PARADEEP. JAGATSINGHPUR" was carried out by Manogyna Manoswini (M.Sc./ ZOOL / 22-013) of 4th semester PG science(Zoology) under my guidance and supervision. This project was submitted as a part of partial fulfilment of 4<sup>th</sup> semester of PG science Examination, 2024.

This is an original piece of work and has not been submitted to any university/college earlier.

External

Dr Goura Prasad Sarangi

Reader in Zoology Kendrapara Autonomous college, Kendrapara

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Environmental pollution from human activities such as urbanization, industrialization, mining, and exploration is a severe worldwide problem posing a threat to the well-being of the general population and the natural surroundings of paradeep. Despite stringent regulations for protecting the environment, both developed and developing nations contribute to pollution. Pollutants can be found in air, water, soil, and other sources, such as chemical substances, noise, heat, and light. There are seven types of pollution, namely, air pollution, water pollution, soil pollution, noise pollution, thermal pollution, light pollution, and radiation pollution. Pollution has a significant impact on morbidity and mortality rates globally. To combat pollution, comprehensive strategies are needed, including addressing the causes and effects of pollution, reducing greenhouse gas emissions, enhancing energy efficiency, and advocating for the adoption of renewable energy sources. Different sectors, such as governments, industries, and individuals, must collaborate for the lasting success of pollution control. It is essential to prioritize efforts to reduce pollution and promote a sustainable future for generations to come.

#### PROSPECTUS OF PRAWN CULTURE IN RAJAKANIKA BLOCK, KENDRAPARA DISTRICT, ODISHA

Project report submitted for partial fulfillment of 4<sup>th</sup> semester PG science ( Zoology) Examination- 2024

Submitted by -

SHANKHAMUDRA MOHANTY (Msc/Zool/22-014)

PG 2<sup>nd</sup> year science

Guided by -

DR. GOURA PRASAD SARANGI Reader and HOD of Zoology



PG DEPARTMENT OF ZOOLOGY

KENDRAPARA AUTONOMOUS COLLEGE

KENDRAPARA, ODISHA, 754211

Culture in Rajakanika Block, Kendrapara
District, Odisha" was carried out by Shankhamudra
Mohanty (M.Sc/Zool/22-014) of 4<sup>th</sup> semester PG Science
(Zoology) under my guidance and supervision. This project was submitted as a part of partial fulfillment of 4<sup>th</sup> semester
PG Examination-2024 for paper 404.

This is an original piece of work and has not been submitted to any university/ college.

DR. GOURA PRASAD SARANGI

READER AND HOD OF DEPT. ZOOLOGY

KENDRAPARA AUTONOMOUS COLLEGE

KENDRAPARA.

This project deals with the "Prawn Culture in Kendrapara district, Odisha". Among several aquaculture practices, Prawn Culture is the most economical and widely accepted in Kendrapara district, particularly in the block of Rajanagar and Rajakanika, because of the geographical location. This is a feasible method. Prawn is a nutritious food among other food items.

## RECYCLING OF ORGANIC WASTE THROUGH VERMICOMPOSTING

Project report submitted for partial fulfilment of 4<sup>th</sup> Semester PG Science (Zoology) Examination-2024 for Paper-404

Submitted by -

Jyotsnarani Sahoo

Guided By-

Dr Goura Prasad Sarangi

Reader in Zoology



DEPARTMENT OF ZOOLOGY

KENDRAPARA AUTONOMOUS COLLEGE

KENDRAPARA, ODISHA, 754211

Certified that project report on "RECYCLING OF ORGANIC WASTE THROUGH VERMICOMPOSTING" was carried out by Jyotsnarani Sahoo (M.Sc. / ZOOL / 22-016) of 4th semester PG Science (Zoology) under my guidance and supervision. This project was submitted as a part of partial fulfilment of 4th semester of PG science Examination, 2024 for paper-404

This is an original piece of work and has not been submitted to any university / college earlier.

Dr Goura Prasad Sarangi

Reader in Zoology

Kendrapara Autonomous college

Kendrapara

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Vermicomposting is a process in which earthworms are used to convert organic materials into humus-like material known as vermicompost. A number of researchers throughout the world have found that the nutrient profile in vermicompost is generally higher than traditional compost. In fact, vermicompost can enhance soil fertility physically, chemically and biologically. Physically, vermicompost-treated soil has better aeration, porosity, bulk density and water retention. Chemical properties such as pH, electrical conductivity and organic matter content are also improved for better crop yield. Nevertheless, enhanced plant growth could not be satisfactorily explained by improvements in the nutrient content of the soil, which means that other plant growth-influencing materials are available in vermicompost. Although vermicompost have been shown to improve plant growth significantly, the application vermicompost at high concentrations could impede growth due to the high concentrations of soluble salts available in vermicompost. Therefore, vermicompost should be applied at moderate concentrations in order to obtain maximum plant yield.

# DIVERSITY OF DRY FISH (SUKHUA) AVAILABLE IN PARADEEP & KENDRAPARA & EVALUATION OF THEIR NUTRITIONAL POTENTIAL

Project Report submitted for partial fulfilment of 4<sup>th</sup> Semester PG Science (Zoology) Examination-2024.

Submitted by –
Subhadra Sahoo

Guided By-

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Dr Goura Prasad Sarangi
Reader in Zoology



DEPARTMENT OF ZOOLOGY
KENDRAPARA AUTONOMOUS COLLEGE
KENDRAPARA, ODISHA,754211

This to certify that the project work entitled "Diversity of dry fish (Sukhua) available in Paradeep and kendrapara and evaluation of their nutritional potential" has been successfully carried out by Subhadra Sahoo (Roll No-MSc/Zool/22-007), student of Kendrapara Autonomous college, Kendrapara for partial fulfillment of Master of Science in Zoology (2022-2024) for paper 404 under Utkal university, Bhubaneswar. The work was carried out by the candidate under my supervision.

This is original work piece of work and has not been submitted to any university/college earlier.

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Dr. Goura Prasad Sarangi

**Reader in Zoology** 

**Kendrapara Autonomous College** 

Kendrapara

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Fresh fish deteriorates easily unless some way can be found to preserve it. Drying is a method of food preservation that works by removing water from the food, which inhibits the growth of micro-organisms. Open air drying and Sun drying is the ancient method of food preservation and still been practiced since then.

An attempt has been made to collect the information about variety, value and health benefits of consuming dried fish. The knowledge of diversity of dried fish were collected from variety of dried fish shop in Ichhapur(kendrapara), Atharabanki (Paradeep) and Rice meal (Paradeep). The information regarding steps of making dry fish has been collected from dry fish godown, local shops and fisher men in Paradeep. Survey was made during March 2024 to July 2024 to collect the information regarding diversity, process and production of dryfish.

Result revealed that dried fish are rich in quality protein, containing 80-85% protein with fewer calories. 100gm. of dried fish contains 80% protein with 300 calories. Most dried fish contains little cholesterol while being high in essentilal vitamins and minerals. It is a natural product and has retain immense amount of omega-3 fatty acid as well as antioxidants from fresh fish.

This profile makes dried fish a compelling purchase for those looking to increase their intake of healthy food and provides a distinct advantages to dries fish retailers.

### FISH DIVERSITY OF GOBARI RIVER

DISTRICT KENDRAPARA, ODISHA

PROJECT REPORT SUBMITTED FOR

PARTIAL FULFILLMENT OF 4™ SEMESTER M.Sc. 2™ YEAR (ZOOLOGY PG) EXAMINATION 2024

SUBMITTED BY:

SUSHREE SANGITA RAY

GUIDED BY:

DR. BASANTI SUKLA READER IN ZOOLOGY



# PG DEPARTMENT OF ZOOLOGY KENDRAPARA AUTONOMOUS COLLEGE

KENDRAPARA, ODISHA, 754211

Certified that the project report on "FISH DIVERSITY OF GOBARI RIVER, DISTRICT KENDRAPARA, ODISHA" was carried out by Sushree Sangita Ray (M.Sc./ZOOL-22-019), of 4th Semester PG SCIENCE (Zoology) under my guidance and supervision. This project was submitted as a part of partial fulfillment of fourth semester of PG Science examination, 2024.

This is an original piece of work and has not been submitted to any university/college earlier in partor in full.

DR. GOURA PRASAD SARANGI

H. O. D.

PG DEPARTMENT ZOOLOGY

KENDRAPARA (AUTO.) COLLEGE

**KENDRAPARA** 

DR. BASANTI

READER IN ZOOLOGY.

PG DEPARTMENT ZOOLOGY

KENDRAPARA AUTONOMOUSCOLLEGE,

**KENDRAPARA** 



Kendrapara, situated in the coastal beds of Odisha is blessed with a rich collection of diverse Edible fishes. These fishes are well known local species which known to be of high nutrient content, contributing high equality animal protein for human nutrition as they are the source of micronutrients like iron, iodine, zinc, calcium and also vitamin A, D and E. The plenty abundance of edible fishes has been a boon to the rural households as it supports their livelihoods. Besides that the edible fishes have a major factor to a high economic growth rate of India's fish productivity. It was observed that now-a-days many edible species have become threatened and endangered due to several natural and human made causes, so it is essential to detect the strategies required for their conservation and proper utilization.

#### A COMPARATIVE STUDIES ON VARIATION OF BLOOD PRESSURE IN RELATION TO AGE AMONG THE LOCAL PEOPLE OF MANGAL PUR

Dissertation submitted to Kendrapara Autonomous College, Kendrapara as a project work towards the partial fullfillment for

The Master's degree in Science (Zoology) Submitted

BY

#### **DIPIKA PALAI**

M.SC. Semister: IV

ROLL NUMBER - MSC/ZOOL/22-020

Under the guidance of

Dr. Basanti Sukla,

READER in Zoology



DEPARTMENT OF ZOOLOGY

KENDRAPARA AUTONOMOUS COLLEGE, KENDRAPARA, ODISHA,754211.



This is to certified that the review report Entitled ,A COMPARATIVE STUDIES ON VARIATION OF BLOOD PRESSURE IN RELATION TO AGE GROUP OF AMONG LOCAL PEOPLE , MANGALPUR. Submitted to the Department of Zoology , KENDRAPARA AUTONOMOUS COLLEGE, KENDRAPARA in partial fulfillment for is a record master's degree in science (zoology) of bonafide work carried out by Dipika Palai, of 4<sup>th</sup> semester bearing roll no MSC/ZOOLOGY/22-020, under supervision and guidance of

**Dr. Basanti Sukla** , Reader Zoology. All help received by her from various sources have been duly acknowledged. No part of this report has been submitted elsewhere for award of any other degree.

GUIDED BY - Dr. Basanti Sukla

Reader in zoology,

Kendrapara Autonomous college,

Kendrapara

DATE- 20/07/2024

PLACE-Kindrapana

Signature of Project guide

Signature of HOD

Signature of External Evaluator

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#### Abstract

Blood pressure is a vital physiological parameter that plays a crucial role in maintaining the health and functionality of the human body. It is a measure of the force exerted by circulating blood against the walls of blood vessels. Proper regulation of blood pressure is essential for ensuring adequate blood flow to tissues and organs, thus sustaining their optimal functioning.

This project aims to delve into the intricacies of human blood pressure, exploring its significance, regulation mechanisms, associated health implications, and management strategies. The project will cover various aspects, including the definition and measurement of blood pressure, factors influencing blood pressure fluctuations, and the physiology of blood pressure regulation involving the cardiovascular and nervous systems.

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Furthermore, the project will investigate the classification of blood pressure levels, emphasizing the distinction between normal blood pressure, prehypertension, hypertension, and hypotension. It will delve into the epidemiology of hypertension, its risk factors, and the potential consequences of uncontrolled high blood pressure on cardiovascular health, such asheart disease, stroke, and kidney dysfunction.

Moreover, the project will highlight the importance of lifestyle modifications and pharmacological interventions in managing blood pressure disorders. It will discuss dietary considerations, exercise regimens, stress management techniques, and medications commonly prescribed for hypertension treatment. Through a comprehensive examination of human blood pressure, this project aims to enhance understanding of this critical physiological parameter and its implications for overall health and well-being. By disseminating knowledge about blood pressure regulation and management, the project seeksto empower individuals to take proactive measures to monitor and maintain healthy bloodpressure levels, thereby reducing the risk of cardiovascular complications and promoting longevity and quality of life.

#### **DIARY FARM MANAGEMENT & BUSINESS PLAN**

Project report submitted for partial fulfilment of 4th semester PG
Science (Zoology) Examination-2024

Submitted by -

Sai Jyoti Pattanaik

Guided By-

**Dr Goura Prasad Sarangi** 

Reader in Zoology



#### **DEPARTMENT OF ZOOLOGY**

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KENDRAPARA AUTONOMOUS COLLEGE

KENDRAPARA, ODISHA, 754211

Certified that project report on "DIARY FARM MANAGEMENT & BUSINESS PLAN" was carried out by Sai Jyoti Pattanaik (M.Sc./ ZOOL/ 22-021) of 4th semester PG science(Zoology) under my guidance and supervision. This project was submitted as a part of partial fulfilment of 4<sup>th</sup> semester of PG science Examination, 2024.

This is an original piece of work and has not been submitted to any university/college earlier.

External

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Dairy farming has become a highly productive system producing ample amounts of high quality milk and meat from fewer cows on less land on fewer, but larger, farms. Despite this consolidation and modernization, zoonotic-Pathogen bacteria and protozoans reamain problem on the modern dairy farm. Although pasteurization has greatly reduced illness due to contaminated dairy products, post processing contamination and an apperent increase in the consumption of raw milk, raw milk products and meat from Dairy cows continue to result in outbreaks of gastro-intesnalness. Methods used for pathogen detection, identification, sub-typing and characterization method have shown the relationship between pathogens from cow feces and the surrounding environment and those contaminating milk.