



**Gokhale Education Society's  
H.P.T. Arts and R.Y.K. Science College, Nashik  
(Centenary Celebration Period- 1924 to 2025)  
Affiliated to Savitribai Phule Pune University, Pune**



# **Department of Zoology Welcomes NAAC PEER TEAM MEMBERS**

# ZOOLOGY DEPARTMENT AT A GLANCE

**Year of Establishment :  
1971**

**Non teaching staff :03**

**Courses Conducted:**  
UG course  
PG course

**Research Publication: 22**

**Number of Teaching staff  
: 10**

**Doctorate (Ph.D.) staff:  
06**

**Gokhale Education Society's  
HPT ARTS & RYK SCIENCE COLLEGE, NASHIK  
DEPARTMENT OF ZOOLOGY**

**Granted Teaching Staff**

<b>SR. NO.</b>	<b>NAME OF THE STAFF</b>	<b>DESIGNATION</b>	<b>Years of Experience</b>
<b>1</b>	<b>Prof. Dr. Ashwini G. Ghanbahadur</b>	<b>Professor and HOD</b>	<b>22 Years</b>
<b>2</b>	<b>Dr. Kishori T. Dhumal</b>	<b>Assistant Professor</b>	<b>13 Years</b>
<b>3</b>	<b>Dr. Nazneen Z. Deshmukh</b>	<b>Assistant Professor</b>	<b>12 Years</b>
<b>4</b>	<b>Dr. Bharati G. Kolhe</b>	<b>Assistant Professor</b>	<b>10 Years</b>
<b>5</b>	<b>Dr. Pawankumar K. Mudbe</b>	<b>Assistant Professor</b>	<b>9 Years</b>
<b>6</b>	<b>Dr. Mahesh B. Mudgal</b>	<b>Assistant Professor</b>	<b>8 Years</b>
<b>7</b>	<b>Dr. Varsha A. Ghatule</b>	<b>Assistant Professor</b>	<b>6 Years</b>
<b>8</b>	<b>Ms. Srushti U. Birari</b>	<b>Assistant Professor</b>	<b>2 Years</b>

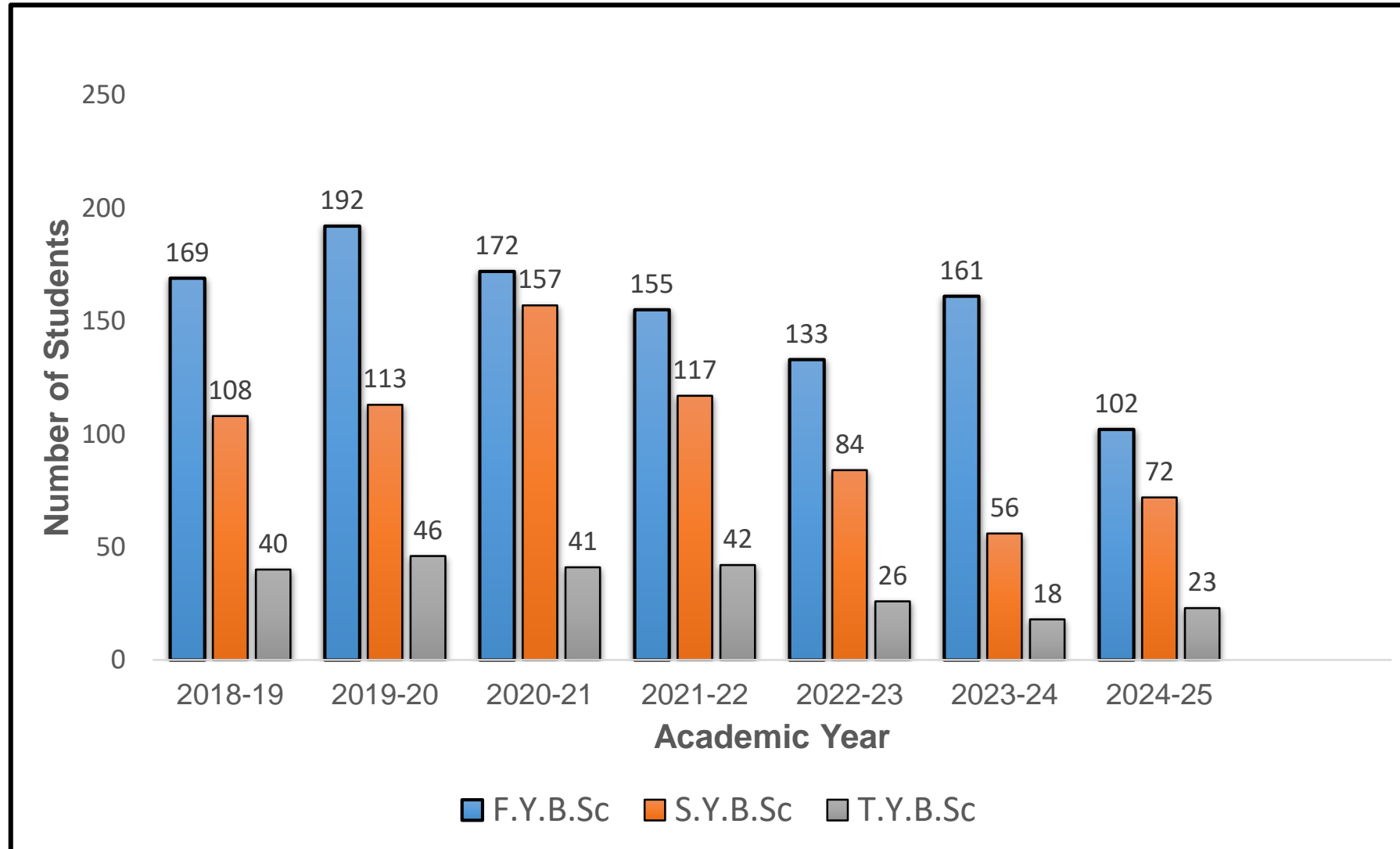
**Non-Granted Teaching Staff**

<b>1</b>	<b>Ms. Prajakta S. Deshpande</b>	<b>Assistant Professor</b>	<b>17 Years</b>
<b>2</b>	<b>Mrs. Sukhada R. Kulkarni</b>	<b>Assistant Professor</b>	<b>13 Years</b>

**Non-Teaching Staff**

<b>SR. NO.</b>	<b>NAME OF THE STAFF</b>		
<b>1</b>	<b>Mr. Deepak S. Bhavsar</b>	<b>Laboratory Assistant</b>	<b>19 Years</b>
<b>2</b>	<b>Mr. Prakash K. Joshi</b>	<b>Laboratory Attendant</b>	<b>19 Years</b>
<b>3</b>	<b>Ms. Pooja S. Sathe</b>	<b>Laboratory Attendant</b>	<b>1 Year</b>

# STUDENT ENROLLMENT(2018-2025)



# ACADEMIC CALENDAR 2018-2019

MONTH : September 2018

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
					1 Photography competition – Zoology	2
3	4	5 Teachers day, Student's Council activity.	6	7 <i>ONE DAY STUDY TOUR Anjnesi</i>	8 PTA Zoology Screening-Film Club Activity	9
10 Exam Committee Meeting (Arts)	11	12 Ganesh Chaturthi	13	14 Thalasamia Awareness lecture.	15 Blood donation camp. PHOTOGRAPHY COMPETITION	16
17	18 Exam Committee Meeting (Science)	19 GE Society Centenary Celebration Lecture	20 Moharram	21	22	23 Anant Chaturdashi
24	25	26 Travel & Tourism Dept. activity.	27 2 <sup>nd</sup> Internal Test FYBSc/ SYBSc.	28	29	30

## Academic Calendar Year 2018-19

## Academic Calendar Year 2018-19

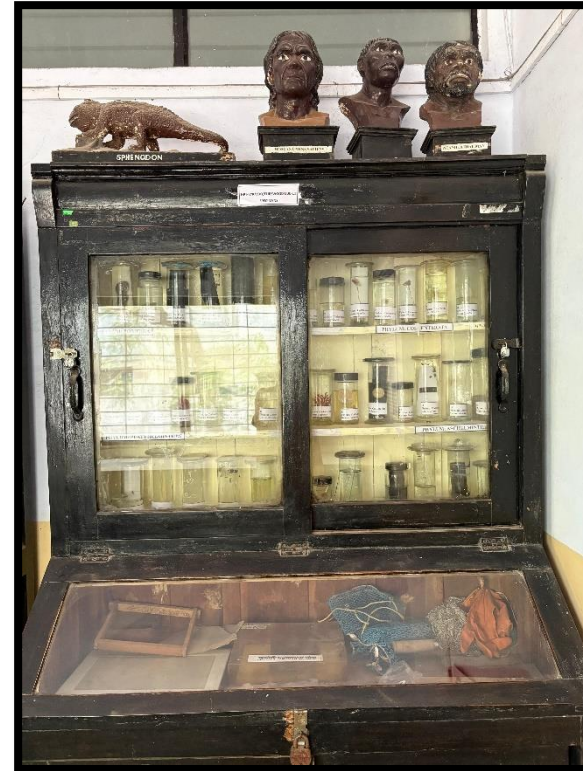
# ACADEMIC CALENDAR 2018-2019

MONTH : August 2018

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		1	2	3	4 Be friendly with Laboratory, one day workshop for FYB.Sc. (B) students	5
6	7	8	9 Ranganathan Day	10 Exam Committee Meeting (Science)	11 <i>Workshop on "BE FRIENDLY WITH LABORATORY"</i>	12
13	14	15 Flag hoisting NSS/ NCC activity.	16 FYBSc, SYBSc 1 <sup>st</sup> Internal Test.	17 Parsi New Year	18 GE Society Centenary Celebration	19
20	21 <i>Documentary on "INSECT COLONY"</i>	22 Bakri ID	23 <i>Documentary on "PLASTIC POLLUTION"</i>	24	25 Alumni meet Zoology.	26
27	28	29	30 <i>Documentary on INSECT ECOLOGY.</i>	31		



# TEACHING TOOLS





Hematological Practical

TEACHING LEARNING METHODOLOGIES

STUDENT CENTRIC METHODS

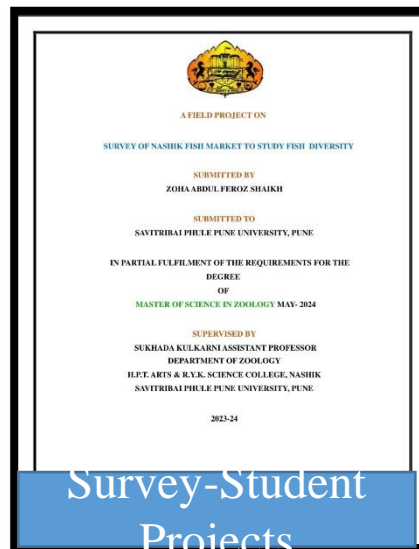


Visit to Chunchale Farm

PRACTICAL  
&  
DEMONSTRATIONS

STUDY TOURS,  
FIELD VISITS AND  
INDUSTRIAL VISITS  
(10)

SURVEYS  
&  
CASE STUDIES



Survey-Student  
Projects



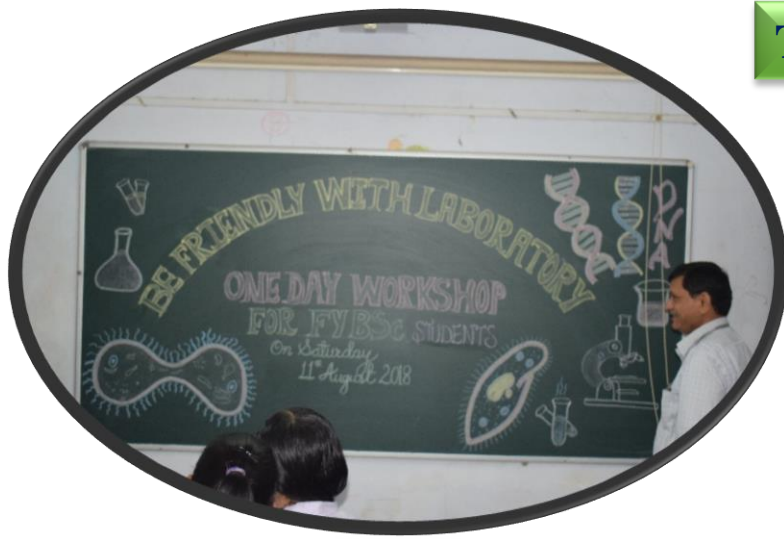
Visit to fertility lab

Microtomy Handling



# TEACHING LEARNING METHODOLOGIES

## PARTICIPATIVE LEARNING



Workshop on be friendly with laboratory



Field learning quadrat method



"Ratufa" Zoology Day



Field learning moth diversity in campus



Photography competition



# PROGRAM SPECIFIC OUTCOMES

## F.Y.B.Sc (2019 Pattern)

PSO 1: Understand and help in making policies for biodiversity conservation, animal protection, environment safety, and sustainable growth, focusing on the importance of animals in nature and the economy.

PSO 2: Learn about animal classification, diversity, and topics like Taxonomy, Physiology, Genetics, Ecology, and Toxicology. Gain practical lab skills for research and industry.

PSO 3: Use advanced knowledge in animal breeding, insect farming, fish farming, and silk production to improve food supply, start businesses, and encourage eco-friendly practices.

PSO 4: Combine traditional knowledge and modern science to use animal-based products for healthcare and solve complex biological issues using research and molecular techniques.

PSO 5: Build skills for jobs in aquatic biology, wildlife conservation, and other zoology fields by improving communication, problem-solving, and entrepreneurial abilities.

## S. Y. B. Sc. (2019 Pattern)

PSO 1: Students will learn about the diversity, classification, and special features of different animal groups, including Protochordata, Vertebrata, Amphibia, Reptilia, Aves, and Mammalia.

PSO 2: Students will gain practical skills in beekeeping, silk farming, and fish farming, including how to manage bees, produce silk, and preserve fish.

PSO 3: Students will understand and use methods to protect biodiversity, focusing on the importance of reptiles, birds, and amphibians in nature.

PSO 4: Students will do hands-on activities like identifying pests, studying animal body systems, and making temporary mounts, improving their research skills.

PSO 5: Students will explore how silk and fishery by-products can be used in healthcare and industry, helping them develop business ideas and skills.

## T. Y. B. Sc. ZOOLOGY

PSO 1: Gain a deep understanding of animal diversity, their ecological roles, and evolution to create strategies for biodiversity conservation.

PSO 2: Develop hands-on lab skills in Taxonomy, Physiology, Genetics, Molecular Biology, Biochemistry, developmental Biology and Forensic Science to study life processes and solve biological challenges.

PSO 3: Use knowledge in pest control, fish farming, silk farming, and poultry farming to support sustainable growth and start businesses.

PSO 4: Combine traditional and modern methods to use animal products for healthcare, improve food supply, and address environmental problems.

PSO5: Strengthen research, communication, and problem-solving skills to contribute to science, industry, and nation-building. Acquire the skills to prepare projects, including identifying topics, designing methodologies, collecting and analyzing data, and effectively communicating findings.

# ATTAINMENT OF POS AND COS ARE EVALUATED

ATTAINMENT of POs and Cos	METHODS
POs/COs Mapping- Direct Method	Internal Assessment
POs/COs Mapping- Direct Method	University Examination Results
POs/COs Mapping- Direct Method	University Rank Holders
POs/COs Mapping- Indirect Method	Co-curricular Activities
POs/COs Mapping- Indirect Method	Progression to Higher Studies

# CROSS CUTTING ISSUES TRANSACTED IN THE SYLLABUS

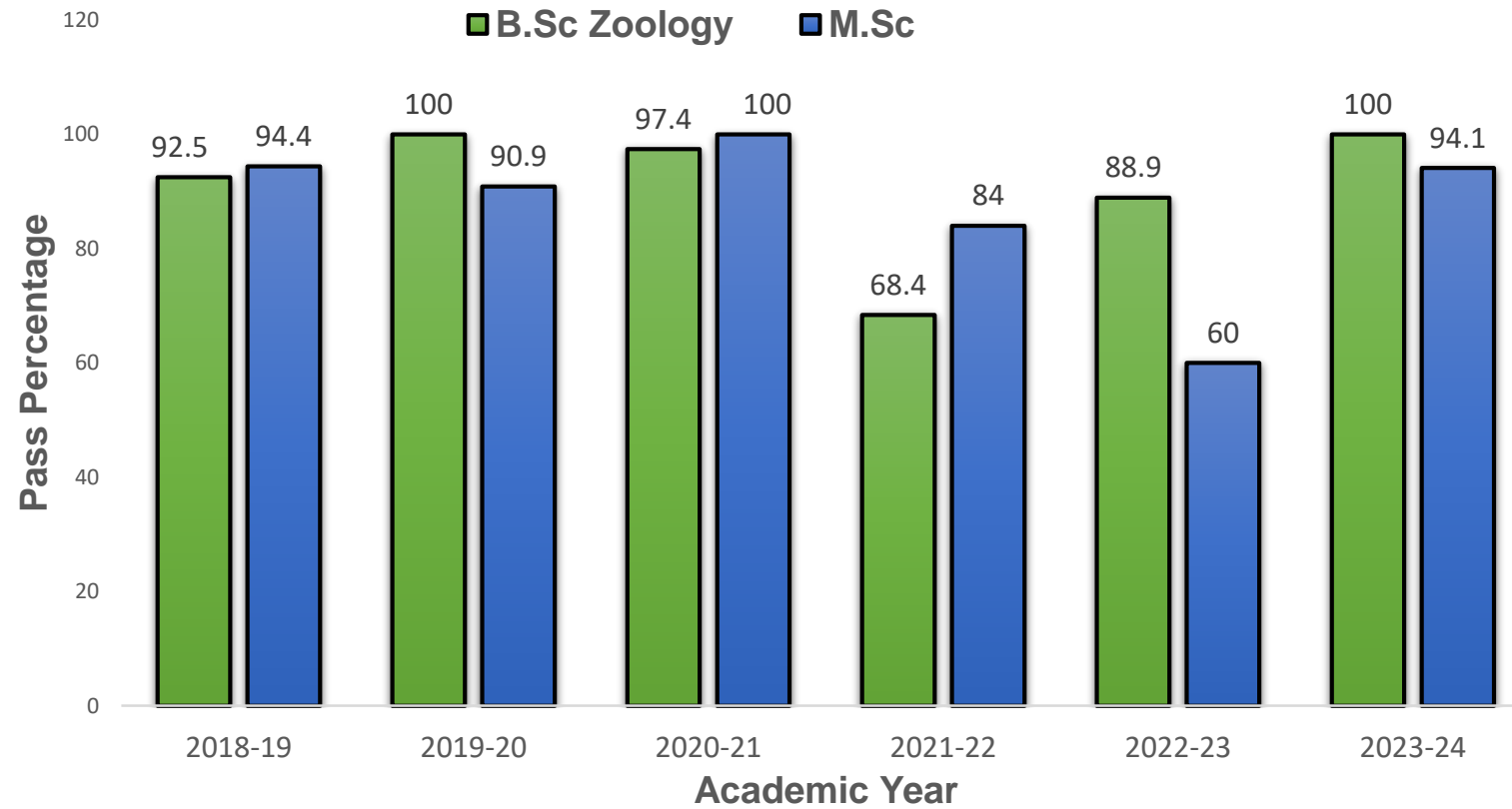
Course Name	Level	Issue addressed	Description
ZO 111 Animal Diversity 1	FYBSC (ZOOLOGY)	<b>Environment &amp; Sustainability:</b>	Knowledge of Animal classification is important for policy makers in Biodiversity conservation, animal preservation and environment protection.
ZO 112 Animal Ecology	FYBSC (ZOOLOGY)	<b>Environment &amp; Sustainability:</b>	Increasing loss of forests, declining quality and quantity of fresh water and land degradation are causing severe stress to ecosystem. Sustainable management protection conservation, maintenance and restoration of ecosystems is important.
ZO-121 Animal Diversity 2	FYBSC (ZOOLOGY)	<b>Environment &amp; Sustainability:</b>	Important for Biodiversity conservation, animal preservation and environment protection.
ZO-122 Cell Biology.	FYBSC (ZOOLOGY)		
ZO-231 Animal Diversity 3	SYBSC (ZOOLOGY)	<b>Environment &amp; Sustainability:</b>	Detailed Knowledge of Environment & Sustainability is important.
ZO-232 Applied Zoology 1	SYBSC (ZOOLOGY)	<b>Professional Ethics:</b> Agricultural Pests and their control.	Scientific knowledge of pest and their control is important for agriculture profession. Sustainability awareness.
		<b>Professional Ethics:</b> Sericulture.	Scientific knowledge of sericulture is important for successful conduction sericulture farm.
ZO-241 Animal Diversity 4	SYBSC (ZOOLOGY)	<b>Environment &amp; Sustainability:</b>	Knowledge of Animal classification is important for policy makers in Biodiversity conservation, animal preservation and environment protection.
ZO 242 Applied Zoology 1	SY (ZOOLOGY)	<b>Professional Ethics:</b> Apiculture and Fisheries.	Scientific knowledge of bees and their commercial uses for agricultural development. Detailed knowledge of consumable fish, fish farming and different techniques of preservation.
ZO-351 Pest Management	TY B.Sc. (Zoology)	<b>Professional Ethics</b>	Agriculture and food security, public health, sustainability awareness.



# CROSS CUTTING ISSUES TRANSACTED IN THE SYLLABUS

Course Name	Level	Issue addressed	Description
ZO-356: Parasitology	TY B.Sc. (Zoology)	<b>Human values:</b>	Spreads awareness about human parasitic infections and prophylaxis.
ZO-361 Medical and forensic biology	TY B.Sc. (Zoology)	<b>Human ethics:</b>	Time since death and postmortem, ethical and legal aspects, importance of clinical autopsies and criminal investigations.
Biosystematics and biodiversity.	M.Sc. I (Zoology)	<b>Environment &amp; Sustainability:</b> Protection of environment.	Protection and awareness. Current status and threats to biodiversity.
Medical Entomology	M.Sc. I (Zoology)	<b>Human values:</b> Medical Entomology	Helps to understand, classify and identify insects of medical and veterinary importance. Prepare students to contribute to the field of public and community health.
Genetics	M.Sc. II (Zoology)	<b>Human values: Genetics:</b> patterns of inheritance.	Helps to understand patterns of inheritance. Students understand importance of genetics in hereditary diseases and their risk in future generation.
		<b>Professional Ethics:</b> use of animals in biomedical research and guidelines.	use of animals in biomedical research and guidelines.
Applied Genetics	M.Sc. II (Zoology)	<b>Human values:</b> Genetic engineering and tools.	Understands Genetic engineering and its tools. Applications of genetic engineering to meet the current demands.
Environmental biology	M.Sc. II (Zoology)	<b>Environment &amp; Sustainability:</b> Case studies on global environmental issues, natural resources.	Awareness on environment. Environment protection and safe environment for future generation.
ZO-356: Parasitology	TY B.Sc. (Zoology)	<b>Human values:</b>	Spreads awareness about human parasitic infections and not by many superstitious believes.
ZO-361 Medical and forensic biology	TY B.Sc. (Zoology)	<b>Human ethics:</b>	Time since death and postmortem, ethical and legal aspects, importance of clinical autopsies and criminal investigations.

## Result Analysis (2018-2024)



**Average For Five Years:-**

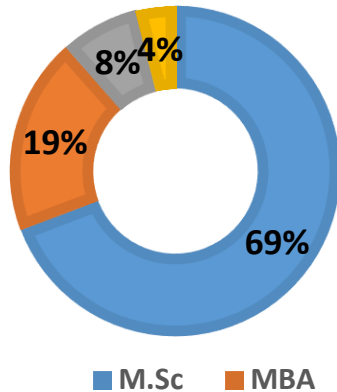
**Final Year M.Sc. Zoology 85.34%**

**Final Year B.Sc. Zoology 89.96%**

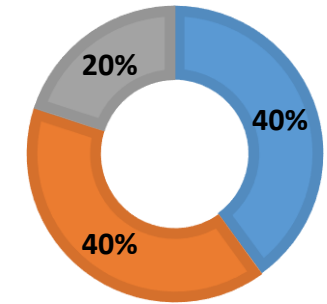
# Student Support and Progression (2018-2024)

Placement/ progression	Year	Name of student	Contact Details of Students	Program graduated from	NAME OF INSTITUTION JOINED	Name of program admitted to (applicable for students who progressed to higher education)
Progression	2018-19	Belgaonkar Revati Umesh	8600789076	BSc	GES's HPT Arts and RYK Science College, Nashik	MSc (Genetics)
		Salve Diksha	9689695446	BSc	GES's HPT Arts and RYK Science College, Nashik	MSc (Genetics)
		Agrawal Nileshwari Niranjan	9921755717	BSc	GES's HPT Arts and RYK Science College, Nashik	MSc (Genetics)
		Gangurde Mansi			GES's HPT Arts and RYK Science College, Nashik	MSc (Genetics)
		Gangurde Pradnya			GES's HPT Arts and RYK Science College, Nashik	MSc (Genetics)
		Mande Prashant			GES's HPT Arts and RYK Science College, Nashik	MSc (Genetics)
	2020-21	Bidve Mayur Suresh	8888409881	BSc		
	2021-22	Vadodkar Aditya Sunil	7066044031	BSc	DMS PUMBA	MBA
		Bhanose Gayatri Bhimashankar	9834659987	BSc	Vivekananda Global University, Jaipur, Rajasthan	MSc (Forensic Science)
		Saini Lalita Chauthmal	8459825513	BSc	GES's HPT Arts and RYK Science College, Nashik	MA (Economics)

## AFTER GRADUATION



## AFTER POST- GRADUATION



■ Ph.D ■ Lecturer

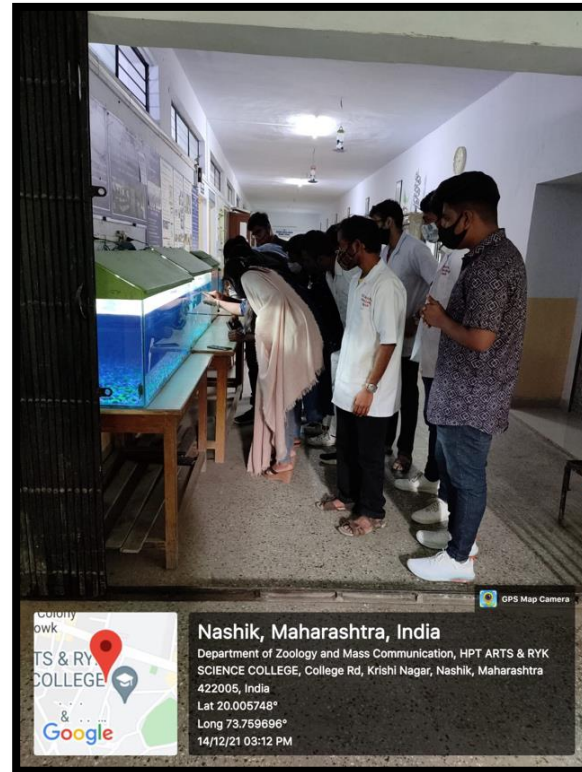
Placement/ progression	Year	Name of student	Contact Details of Students	Program graduate d from	NAME OF INSTITUTION JOINED	Name of program admitted to (applicable for students who progressed to higher education)
Progression	2019-20	Songire Shweta Ravindra	9188887429	MSc	Manavata Clinical Research Institute	PGDCR- Post Graduation Diploma In Clinical Research
		Gangavane Suraj Digambar	8390608647	MSc	Shikshan Mandal Bhagur	B.Ed.
		Rahane Vaishali Ashok	9860735194	MSc	M.V.P Samajs College, Niphad	Ph.D.
	2020-21	Kadlag Prajakta Shivaji	8620018008	MSc	M.V.P Samajs Karmaveer Ganpat Dada More College Niphad	Ph.D.
		Salve Diksha Mukesh	9689695446	MSc	J.D.C. BYTCO IMSR, Nashik - 4	MBA
		Shah Pooja Prabhunath	7620577372	MSc	Ashoka College of Education	BEEd
		Patil Roshan Dyaneshwar	447480260784	MSc	University of Leiceester (UK)	
	2021-22	Sakshi Rajesh Kankarej	8275856975	MSc	Loknete Vyankatrao Hiray Arts, Science and Commerce College	Ph.D.



# Certificate Course in Aquaculture and Fisheries

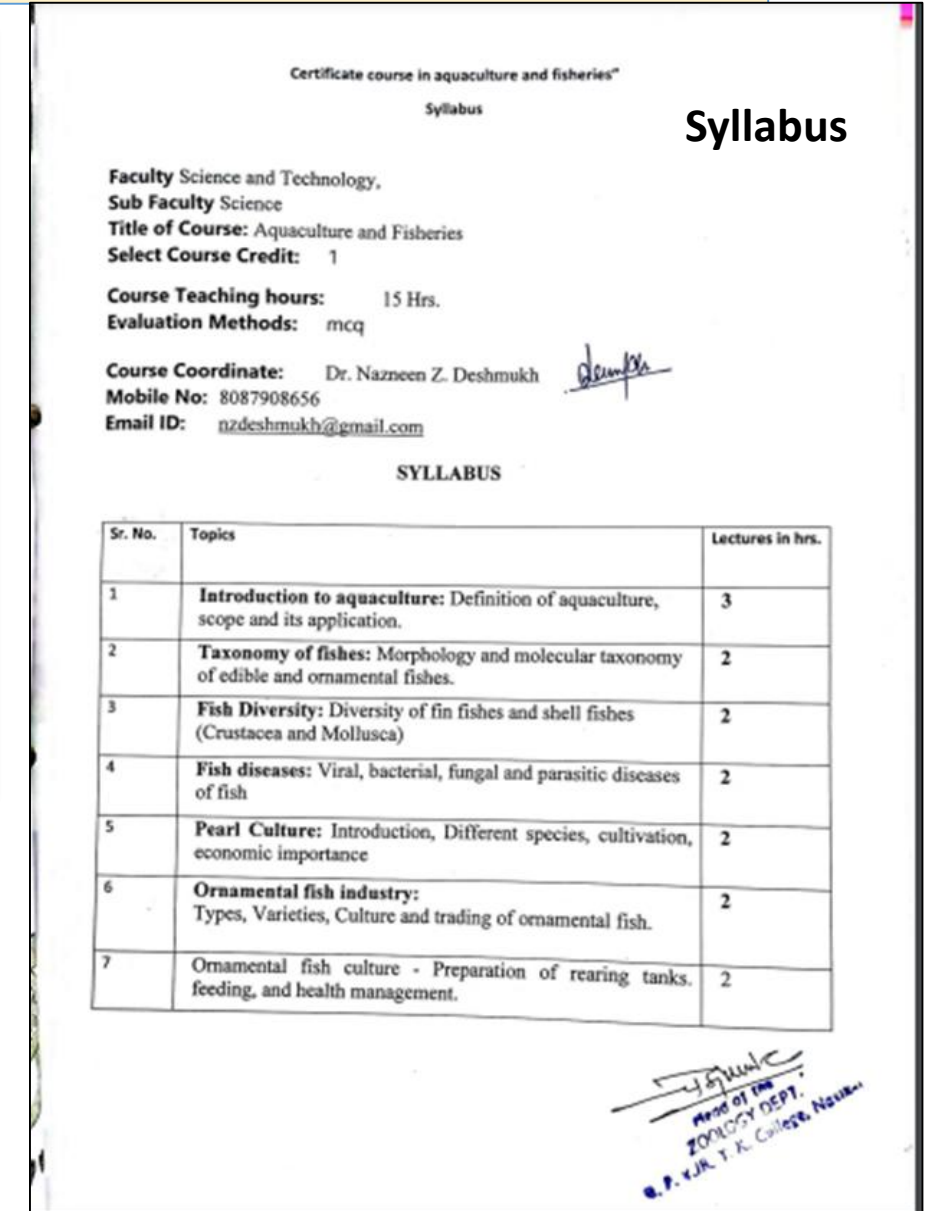


**Year of the course:** 2020-21  
**No. of students enrolled:** 38  
**Credit:** 1  
**Duration:** 15 hours  
**Status:** Completed

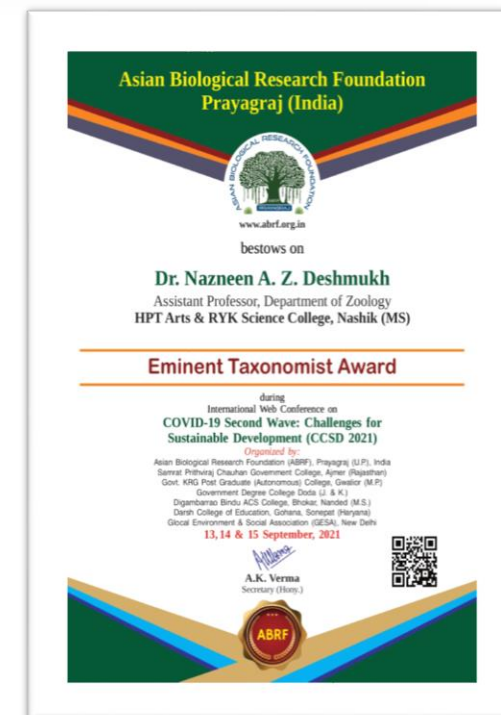
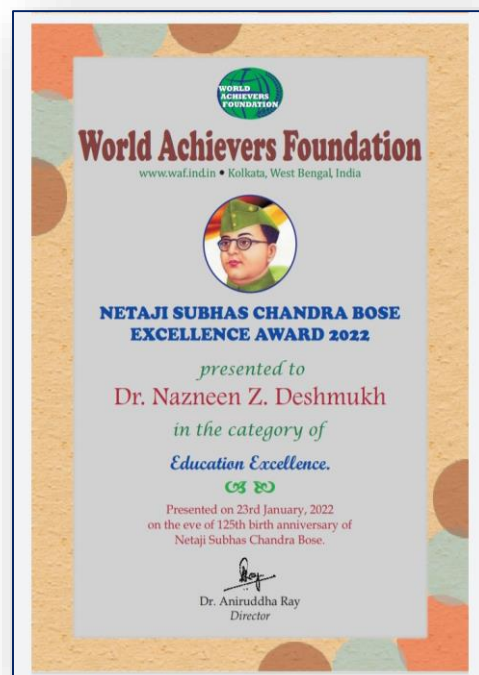
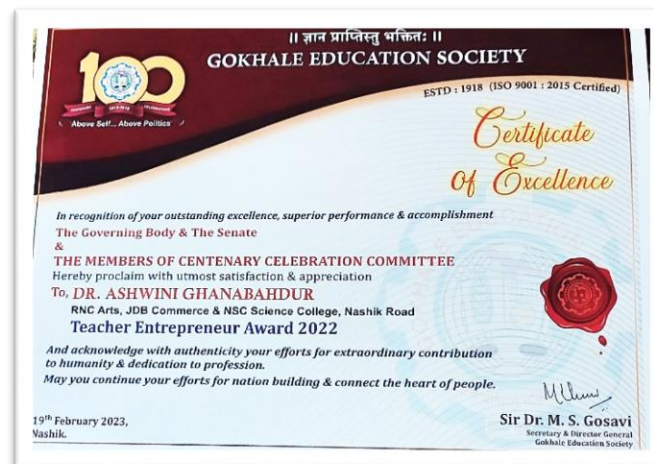


## Aims & Objective:

To create awareness among the students regarding aquaculture and fisheries so as to generate future entrepreneurs.



## TEACHER'S ACHIEVEMENT





# Ongoing Research Project

01

Dr. Sunil Patil  
Director,  
Department of Students' Development  
and Foreign Students' Advisor

University of Mumbai



Department of Students' Development  
and Universities Information Bureau

Vidyapeeth Vidyarthi Bhavan,  
1<sup>st</sup> Floor, 'B' Road, Churchgate,  
Mumbai - 400 020

Tel. and Fax No.: (022) 2204 2859

Date: 12/4/2023

No. SW/ 137/6 of 2023

To,  
**Dr. Mahesh Mudgal**  
Assistant Professor, Department of Zoology,  
Arts, Commerce and Science College,  
Jawhar

**Subject: Sanction of Financial Assistance to the Research Proposal submitted by you to the University of Mumbai under the Scheme "Assistance for S & T Applications" of Rajiv Gandhi Science and Technology Commission, Government of Maharashtra**

Sir,

As per the review and examination of the Project Appraisal Committee, I am directed to inform you that the Research Proposal titled '**Nano formulation using Heterophragma quadriloculare for the treatment of Athlete's Foot (Tinea pedis)**' submitted by you to the University of Mumbai under the Scheme "Assistance for S & T Applications" of Rajiv Gandhi Science and Technology Commission, Government of Maharashtra has been sanctioned for financial assistance of **Rs. 5,00,000 (Rupees Five Lacs Only) for 24 months.**

The details are as under-

Name of the Principal Investigator	Dr. Mahesh Mudgal
Name of the College of the Principal Investigator	Arts, Commerce and Science College, Jawhar
Name of the Department of the Principal Investigator	Department of Zoology
Name of the Co-Investigator	Dr. Aniket Gade
Name of the College of the Co-Investigator	Institute of Chemical Technology, Matunga, Mumbai
Name of the Department of the Co-Investigator	Department of Biological Science and Biotechnology

Proposal submitted to



University of Mumbai



Scheme

**'Assistance for S & T Applications'  
of Rajiv Gandhi Science and  
Technology Commission,  
Government of Maharashtra**

**Total Funds  
received:  
Rs 5,00,000/  
for 24  
Months**

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Controller General of Patents, Designs and Trademarks  
Department of Industrial Policy and Promotion  
Ministry of Commerce and Industry

### Design Application Details

Application Number: 365205-001

Cbr Number: 202207

**Cbr Date:** 01/06/2022 11:49:01

**Applicant Name:**

1. Prof. Dr.Ashwini Girish Ghanbahadur
2. Prof. Dr. Raju Marutirao Ganeshwade
3. Dr. Rahul Nivruttirao Pandit

### Design Application Status

**Application Status:** Design Accepted and Published, Journal No is 19/2023 and Journal Date is 12/05/2023

[Back](#)

Disclaimer: Application status is available for the application filed on or after 1st April 2009 with application no 222230. The information under \* Design Application Status\* is dynamically retrieved and is under testing, therefore the information retrieved by this system is not valid for any legal proceedings under the Design Act 2000. In case of any discrepancy you may contact the appropriate Patent Office or send your comments to following email IDs:

Design Office, Kolkata : [controllerdesign.ipo@nic.in](mailto:controllerdesign.ipo@nic.in)

Controller General of Patents, Designs and Trademarks



# Intellectual Property Rights

04



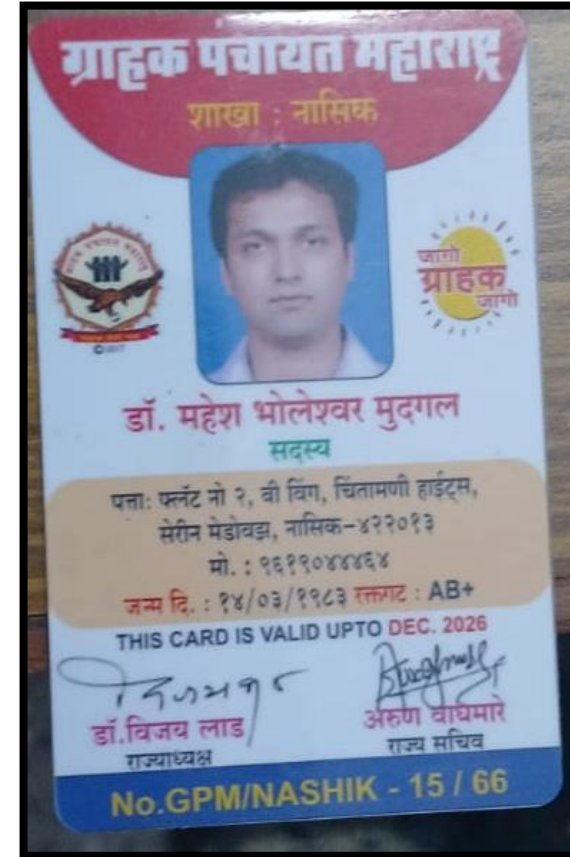


# LAB TO SOCIETY



## CONSUMER AWARENESS PROGRAM (FOOD TOXICITY)

Delivering Lecture to CitiLinc Staff Members (Municipal Corporation Local Transport)



Dr. Mahesh Mudgal  
Member of Grahak Panchayat  
Maharashtra

# Best Practices





## Ratufa

ZOOLOGY DAY

8th Feb 2025

**Organizer**  
**Department of Zoology**

**Poster Presentation**  
Contact:  
Dr. N.Z. Deshmukh  
☎ 8087908656

**Zoological Rangoli**  
Contact:  
Dr. B.G. Kolhe  
☎ 9011030850

**Animal out of Vegetables**  
Contact:  
Ms. S.R. Kulkarni  
☎ 7721840474

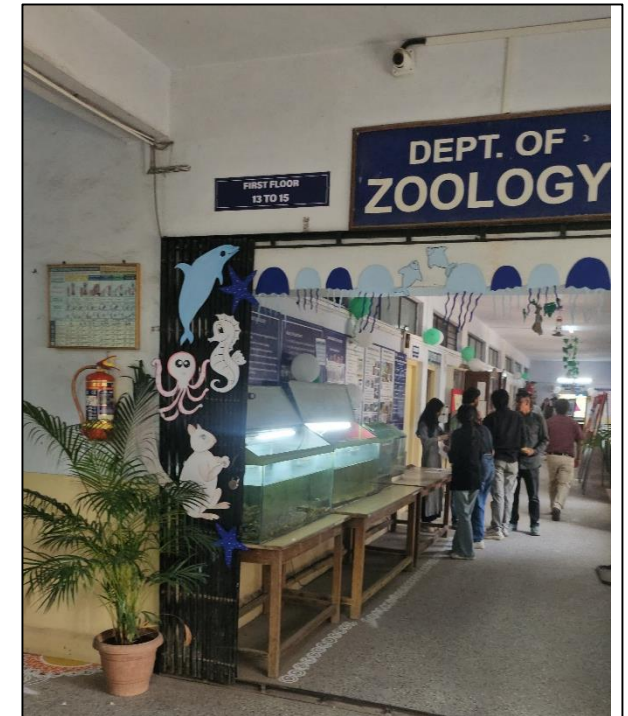
**Fun Games**  
Contact:  
Ms. P.S. Deshpande  
☎ 9423174750

- Pre registration is compulsory
- Entry only for Zoology students
- Last date of entry: 6th Feb 2025

**Themes for poster presentation**

- Wildlife Conservation
- Genetics in Health
- Save oceans







# Best Practices

## School Connect- Student visit to the Department



# SWOC ANALYSIS

## STRENGTH

- Oldest Department established in the region 1971,
- Precious preserved museum specimens of various animals from diverse phylum.
- 6 Staff members are Ph.D. Women empowered Department.

## WEAKNESS

- Lack of research funds through research projects.

## OPPORTUNITIES

- NEP implementation has increased possibilities to generate student entrepreneurs
- To generate database through students projects which would help in Community development.

## CHALLENGES

- To create interest in the subject of Zoology and increase the enrolment of students .

## FUTURE PLAN

- Research Centre Development.
- Demonstration unit for Vermicomposting, Sericulture, larvivorous fish culture in relevance with NEP courses.
- Involvement of students in active research.