

**DEPARTMENT OF ZOOLOGY(S.F)**  
**DEVA MATHA COLLEGE, KURAVILANGAD**  
**Affiliated to Mahatma Gandhi University, Kottayam**



**REPORT**  
**ON**  
**ADD-ON COURSE**  
**BIOLOGICAL PRESERVATION TECHNIQUES**  
**( DMCK/ SFZOO/AD 21/2023 )**  
**Academic Year: 2023-2024**



**DEVAMATHA COLLEGE KURAVILANGAD  
P.G DEPARTMENT OF ZOOLOGY (SF)**

Add On courses offered for students 2023-2024

**1.LIFESTYLE MANAGEMENT**

**DMCK/SF ZOO/AD 20/2023**

**2. BIOLOGICAL PRESERVATION TECHNIQUES**

**DMCK/SF ZOO/AD 21/2023**

**Department Coordinator : Ms. Ambily K Chandran**

**Academic year : 2024-2025**

**Title : Biological preservation Techniques :**

**Instructional Hours : 30 Hours**

**Duration : 3 months**

**Mode of Instruction :Online/Offline**

**Intake Capacity : 12**

**Eligibility : B Sc Zoology**

**Beneficiaries : I MSc Zoology**

**Date(s) on which program was conducted:**

**Collaborating agency inside/outside the institute :Nil**

**Organizing Dept./Club & Name of the Coordinator :Zoology (SF)**

**Ms. Ambily K Chandran**

**Number of students participated in the programme : 8**

**The number of students completed the programme : 8**

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### **Report**

P G Department of Zoology offers add on course on ‘Biological preservation techniques((DMCK/ SFZOO/AD 21/2023 ) for our I PG students. The details of the course and syllabus are attached. This course mainly introduce tools and techniques available for studying biochemical and biophysical nature of life. This course help learners to use the tools and techniques for project work /research in biology. Eight students participated in the program. Ms. Ambily K Chandran Ms. Sandhra Meria Babu and Ms. Ashna Mohan has taken the class.

### **Course Objectives**

1. To introduce tools and techniques available for studying biochemical and biophysical nature of life
2. To equip the learner to use the tools and techniques for project work /research in biology

## Syllabus

### Module 1 (10 hours)

Specimen preparation for light microscopy – wet mount preparation, smears, squashes and sections. Cytochemical and histological methods – microtome techniques, fixation, staining, cytochemistry of nucleic acids, detection of carbohydrates, proteins and lipids.

### Module 2 (10 hours)

Taxidermy, Fixation, preparation of temporary and permanent slides, whole mounts.

Collection and preservation of vertebrates. Preparation of specimens: Preparation of museum specimens, articulated skeletons, Alizarin preparation and resin-embedded specimens, Preparation of sections involving microtome and cryostat.

### PRACTICAL (10 hours)

- Preparation of temporary and permanent slides. (Demonstration only)
- Preparation of Microtome section & spreading. (Demonstration only)
- Squash preparation of onion root tip. (Demonstration only)
- Collection and preservation of invertebrates. (Demonstration only)

## Assessment Procedure

### Multiple Choice Questions

### Grading

Grade	Grade point	Range
A+	5	4.50 - 5.00
A	4	4.00 - 4.49
B	3	3.00 - 3.99
C	2	2.00 - 2.99
D	1	0.01 - 1.99
E	0	0

### Course outcome

- Familiarize with the equipments used for histological studies
- Implementing temporary and permanent mounting
- Differentiating various stains and chemicals used for each histological procedures

### List of Resource Persons

1. Ambily K Chandran
2. Sandhra Meria Babu
3. Ashna Mohan

### Students List

Sl.No	Class No.	Name
1	23PG976	Abhijith Soman
2	23PG977	Anjaly Antony
3	23PG978	Asin Augustine
4	23PG979	Biya Tresa Thomas
5	23PG980	Bony Sebastian
6	23PG981	Emy Elsa Babu
7	23PG982	Julia Mariam Moncy
8	23PG983	Sreelakshmi S

## Attendance sheet of students

Add on course offered by P. G Department of Zoology (SF) 2023-2024

I M Sc Zoology

Biological Preservation Techniques

Attendance of Participants

Sl.No	Roll No	Name of student	4/12/2023			5/12/2023			6/12/2023		
			I	II	III	I	II	III	I	II	III
1	23PG976	Abhijith Soman	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
2	23PG977	Anjaly Antony	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
3	23PG978	Asin Augustine	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
4	23PG979	Biya Tresa Thomas	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
5	23PG980	Bony Sebastian	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
6	23PG981	Emy Elsa Babu	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
7	23PG982	Julia Mariam Moncy	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
8	23PG983	Sreelakshmi S	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

Seal of the Organizing Unit / Agency



*[Signature]*  
Ambily K Chandran

Name(s) and Signature(s) of the Coordinator(s)

*[Signature]*

Name and Signature of the Head of the Department

*[Signature]*  
Ambily K Chandran

Add on course offered by P. G Department of Zoology (SF) 2023-2024

I M Sc Zoology

Biological Preservation Techniques

Attendance of Participants

Sl.No	Roll No	Name of student	11/12/2023			12/12/2023			13/12/2023		
			I	II	III	I	II	III	I	II	III
1	23PG976	Abhijith Soman	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
2	23PG977	Anjaly Antony	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
3	23PG978	Asin Augustine	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
4	23PG979	Biya Tresa Thomas	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
5	23PG980	Bony Sebastian	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
6	23PG981	Emy Elsa Babu	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
7	23PG982	Julia Mariam Moncy	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
8	23PG983	Sreelakshmi S	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

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*[Signature]*

Ambily K Chandran

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*[Signature]*

Name and Signature of the Head of the Department

Ambily K. Chandran

Add on course offered by P. G Department of Zoology (SF) 2023-2024

I M Sc Zoology

Biological Preservation Techniques

Attendance of Participants

Sl.No	Roll No	Name of student	19/12/2023			20/12/2023			5/3/2024			6/3/2024		
			I	II	III	I	II	III	I	II	III	I	II	III
1	23PG976	Abhijith Soman	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
2	23PG977	Anjaly Antony	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
3	23PG978	Asin Augustine	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
4	23PG979	Biya Tresa Thomas	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
5	23PG980	Bony Sebastian	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
6	23PG981	Emy Elsa Babu	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
7	23PG982	Julia Mariam Money	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
8	23PG983	Sreelakshmi S	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS

Seal of the Organizing Unit / Agency



Ambily K Chandran

Name(s) and Signature(s) of the Coordinator(s)

Name and Signature of the Head of the Department

Ambily K. Chandran



# Photos



### Mark List

Sl.No	Class No.	Name	Grade
1	23PG976	Abhijith Soman	A
2	23PG977	Anjaly Antony	A
3	23PG978	Asin Augustine	A
4	23PG979	Biya Tresa Thomas	A
5	23PG980	Bony Sebastian	A
6	23PG981	Emy Elsa Babu	A
7	23PG982	Julia Mariam Moncy	A
8	23PG983	Sreelakshmi S	A

## Feed Back

Feedback link : <https://forms.gle/uE3kFwoF2YSPNH3T6>

Email Address	Batch	Course taken	Have the course met your expectations	Was this course useful to you?	Rate your overall experience	Do you have any suggestions
emybabu27@gmail.com	First year	Biological Preservation Techniques	4	Yes	5	No
mariamjulia30@gmail.com	First year	Biological Preservation Techniques	4	Yes	5	No.
antonyanjaly6@gmail.com	First year	Biological Preservation Techniques	5	Yes	5	No
bonyputhussery95@gmail.com	First year	Biological Preservation Techniques	5	Yes	5	No .
lachu003@gmail.com	First year	Biological Preservation Techniques	5	Yes	5	No
askpsreeabhijith@gmail.com	First year	Biological Preservation Techniques	4	Yes	4	Nothing
biyatresathomas512@gmail.com	First year	Biological Preservation Techniques	5	Yes	5	No suggestions
asinaugustine50@gmail.com	First year	Biological Preservation Techniques	4	Yes	4	No

**Model Certificate issued to the students.**



Name of the coordinator : **Ambily K Chandran**

Department : **Zoology (SF)**