



## **PG & RESEARCH DEPARTMENT OF ZOOLOGY**

**JAMAL MOHAMED COLLEGE (AUTONOMOUS)**

College with potential for excellence

Accredited (3<sup>rd</sup> Cycle) with 'A' Grade by NAAC

DBT Star College Scheme & DST-FIST Funded

(Affiliated to Bharathidasan University)

TIRUCHIRAPPALLI – 620 020.

### **DEPARTMENT OF MUSEUMS**

**GOVERNMENT MUSEUM, PUDUKKOTTAI &**

**GOVERNMENT MUSEUM, TIRUCHIRAPPALLI**

**JOINTLY ORGANISED**

**SHORT-TERM TRAINING WORKSHOP ON**

**“PRESERVATION OF ZOOLOGICAL SPECIEMENS”-2022**

**REPORT FOR WORKSHOP ON**

**PRESERVATION OF ZOOLOGICAL SPECIEMENS-2022**

**Held on**

**23<sup>rd</sup> March 2022 - 28<sup>th</sup> March 2022**

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## Programme schedule

<b>23.03.2022</b>			
Time	Workshop programme	Venue	Staffs
11.30 AM - 12.30 PM	INAGURATION FUNCTION	ZOOLOGY SEMINAR HALL	
<b>LUNCH BREAK</b>			
01.30 PM- 02.00PM	FOWL EGG SHELL PRESERVATION	ZOOLOGY UG LAB	
3.30 PM- 4.30PM	PREPRATION OF ARSENIC PASTE	ZOOLOGY UG LAB	
5.00PM- 5.30PM	DRY PRESERVATION OF FISH <b>DEMO</b>	ZOOLOGY UG LAB	

### INAGURATION FUNCTION



### EGG SHELL PRESERVATION



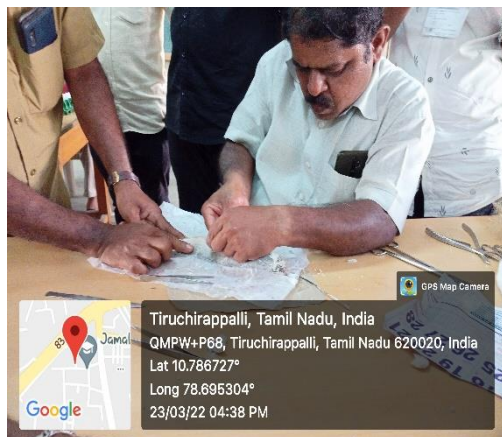
## WET PRESERVATION IN FISH



## ARSENIC PASTE PREPRATION



## DRY PRESERRVATION OF FISH DEMO



24.03.2022			
Time	Workshop programme	Venue	Staffs
10.00 AM-11.30 PM	STUDENTS INDIVIDUALLY DONE DRY PRESERVATION IN FISH	ZOOLOGY UG LAB	
<b>TEA BREAK</b>			
12.00 PM-01.00 PM	DRY PRESERVATION IN CRAB DEMO	ZOOLOGY UG LAB	
<b>LUNCH BREAK</b>			
02.00 PM-03.00PM	DISPLAYING DRY PRESERVED FISH	ZOOLOGY UG LAB	

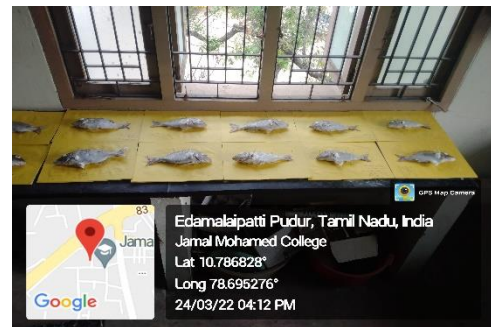
### DRY PRESERVATION IN FISH BY STUDENTS



## PRESERVATION OF CRAB DEMO



## DISPLAYING DRIED SPECIMEN

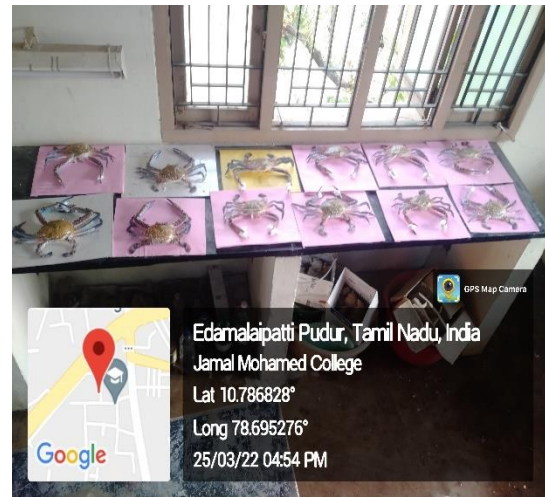


25.03.2022			
Time	Workshop programme	Venue	Staffs
10.00 AM- 11.30AM	PRESERVATION OF PIGEON <b>DEMO</b>	ZOOLOGY UG LAB	
TEA BREAK			
11.50AM- 1.00PM	STUDENTS INDIVIDUALLY DONE PRESERVATION OF CRAB	ZOOLOGY UG LAB	

### PRESERVATION OF PIGEON DEMO



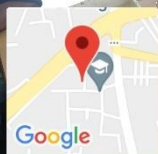
## PRESERVATION OF CRAB BY STUDENTS



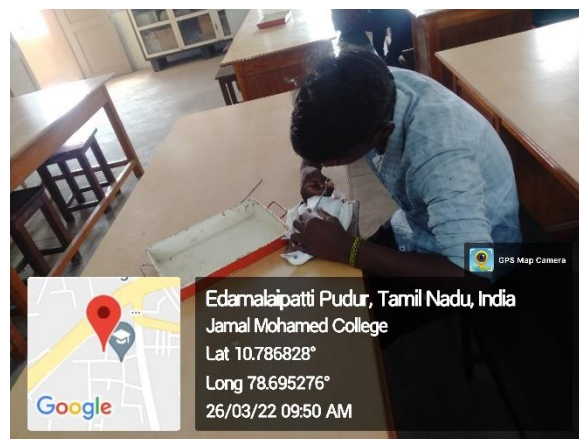


26.03.2022			
Time	Workshop programme	Venue	Staffs
10.00AM-11.30AM	STUDENTS INDIVIDUALLY DONE PRESERVATION OF PIGEON	ZOOLOGY UG LAB	
11.40AM-12.30PM	OUR SECRETARY SIR PRINCIPAL SIR, TREASURES SIR, VICE PRINCIPAL SIR, ADDITIONAL VICE PRINCIPAL SIR, MMS VISITED OUR UG LAB AND SEE THE WORK DONE BY STUDENTS		
TEA BREAK			
12.15PM-01.30PM	STUDENTS INDIVIDUALLY DONE PRESERVATION OF PIGEON	ZOOLOGY UG LAB	
LUNCH BREAK			
2.30PM-5.00PM	PRESERVATION OF FOWL COCK DEMO (DISSECTION & CLEANING)	ZOOLOGY UG LAB	

### PRESERVATION OF PIGEON BY STUDENT

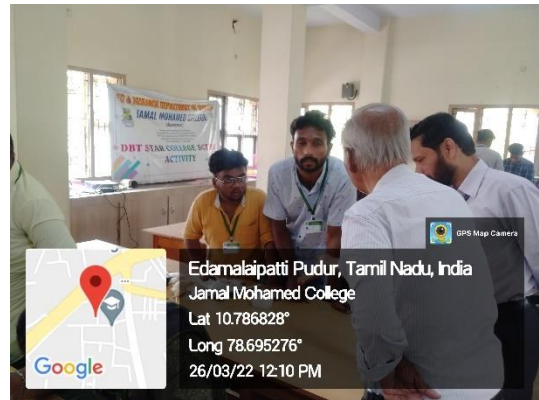
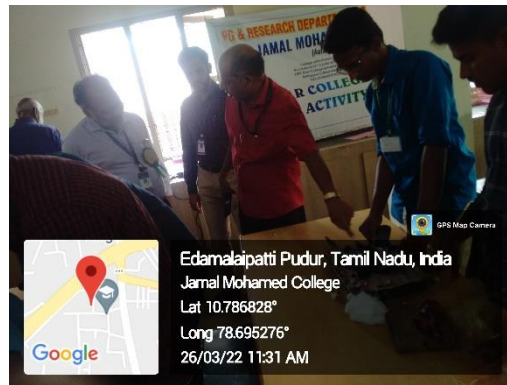
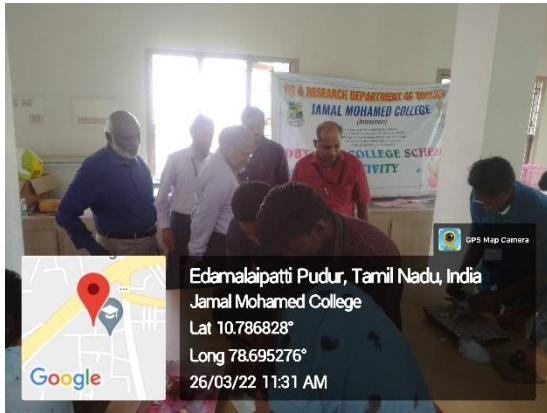


Edamalaipatti Pudur, Tamil Nadu, India  
 Jamal Mohamed College  
 Lat 10.786828°  
 Long 78.695276°  
 26/03/22 09:49 AM



Edamalaipatti Pudur, Tamil Nadu, India  
 Jamal Mohamed College  
 Lat 10.786828°  
 Long 78.695276°  
 26/03/22 09:50 AM

**OUR SECRETARY, PRINCIPAL, TRESURER, VICE PRINCIPAL, ADDITIONAL VICE PRINCIPAL DR.PS SIR,  
VISITED WORKSHOP**



## PRESERVATION OF FOWL



28.03.2022			
Time	Workshop programme	Venue	Staffs
10.00AM-10.30AM	CHANGING CHEMICALS OF FETUS SPECIEMENS IN OUR MUSEUM	ZOOLOGY UG LAB	
<b>TEA BREAK</b>			
11.00AM-11.30AM	VARNISHING ALL SPECIEMENS DONE BY STUDENTS	ZOOLOGY UG LAB	
12.00 PM	DISPLAYING ALL SPECIEMENS OUTSIDE HUSSAINUDEEN HALL	HUSSAINUDEEN HALL	
12.10PM	EXPLAINING ABOUT PRESERVATION TECHNIQUES TO OUR SECRETARY AND PRINCIPAL	HUSSAINUDEEN HALL	
12.15PM	VALEDICTORY FUNCTION STARTS	HUSSAINUDEEN HALL	





Race Course Road, Edamalaipatti Pudur,  
Tiruchirappalli, 620020, TN, India

Latitude	Longitude
10°47'15"N	78°41'46"E
Local 12:18:17 PM	Altitude 77.05 meters
GMT 06:48:17 AM	Monday, 03/28/2022



Race Course Road, Edamalaipatti Pudur,  
Tiruchirappalli, 620020, TN, India

Latitude	Longitude
10°47'15"N	78°41'46"E
Local 12:16:37 PM	Altitude 77.05 meters
GMT 06:46:37 AM	Monday, 03/28/2022

## **PROCEDURE FOR EGG SHELL PRESERVATION**

To preserve the fowls egg by dry preservation method

### **Materials / Chemicals Required:**

Small hand driller, Air blower, syringe, cotton, waste collecting tray, glue distilled water, Formaldehyde.

### **Procedure:**

Shake well the egg and make a small hole by using hand driller, and blow air into the hole with the help of blower the yolk inside the egg comes out and rinse the shell with formalin and insert cotton slowly into the egg. Apply glue around the hole and paste the cotton on it to avoid crack or any other damage.

This technique is used to preserve the eggs of different species for many years for the anatomy and many other studies

## **WET PRESERVATION OF FISH**

### **Wet preservation:**

Wet preservation is the practice of preserving a specimen filled with fluid (formalin, borax, glycerin) inside an enclosed glass jar

### **Materials/Chemicals required:**

Glass jar, formaldehyde, hand gloves, face mask, glycerin, glass for mounting, distilled water, borax, syringe, thread, needle,

### **Procedure:**

- Wipe the specimen with the clean cotton or tissue paper
- Tie the fish in the glass plate with the help of needle and thread
- With the help of syringe formalin\* is injected to the fish
- About 10% of buffered formalin\* is prepared by combining in one-part full strength formalin\* and nine-part distilled water.
- Add 3ml of borax per liter
- Add tea spoon full of glycerin
- Place the fish inside the glass jar with mixture of fluid (formalin\*, borax, glycerin)
- Tightly close the jar and label the specimen.

**Formalin\***- formaldehyde and water solution known as formalin.

## **DRY PRESERVATION OF FISH**

### **Dry preservation:**

Dry preservation is the process that keeps specimen from decomposing. Both vertebrate and invertebrate can be preserved through this technique.

### **Materials/chemicals required:**

Scissor, forceps, hand gloves, face mask, scalpel, needle, cotton thread, pliers, hammer, knife, artificial eyes, butter sheet, cotton, zinc oxide, Arsenic trioxide, Non-detergent soap, white turbine oil, tissue paper, pins, cardboard, camphor, cotton buds, pulichaikeerai fiber , tray, bone cutter, brushes, clear varnish.

### **PREPARATION OF ARSENIC PASTE:**

Warm 1 liter of distilled water with non-detergent soap cut into small pieces, mix 500g of Zinc oxide and 500g of Arsenic trioxide and mix 250 ml of white turbine oil with 100g of camphor. Boil and mix continuously till the mixture came to sludge condition.

### **Procedure:**

- Freshly collected fish is wiped with cotton or tissue paper
- Dry it for 10 minutes
- Apply glue by using brush on the surface of the fish
- Cover the fish with the butter or trace sheet. Keep the fins and tail as it is. while placing the butter paper
- Dry it till glue and butter paper fully dry
- After fully dried dissect the lateral portion slight above the abdomen and remove the skin from flesh slowly with scalpel
- Remove the flesh, gills, eyes, bone inside the body
- Cleanly remove all decaying material inside in it
- Clean the blood and brain inside the skull with the cotton buds
- Thoroughly apply the arsenic paste inside the skin, head and inside the skull
- Stuff the cotton along with pulichaikeerai fiber to retain the actual size
- Stich with cotton thread after fully stuffed, place the artificial eyes to natural one.
- Apply clear varnish on the surface of the crab
- Dry and label the specimen and add some camphor to reduce smell.



## **PRESERVATION OF CRAB**

### **Dry preservation:**

Dry preservation is the process that keeps specimen from decomposing. Both vertebrate and invertebrate can be preserved through this technique.

### **Materials/chemicals required:**

Scissor, forceps, hand gloves, face mask, scalpel, needle, cotton thread, pliers, hammer, knife, artificial eyes, cotton, zinc oxide, Arsenic trioxide, Non-detergent soap, white turbine oil, tissue paper, pins, cardboard, camphor, cotton buds, tray, bone cutter, brushes, clear varnish.

### **PREPRATION OF ARSENIC PASTE:**

Warm 1 liter of distilled water with non-detergent soap cutted into small pieces, mix 500g of Zinc oxide and 500g of Arsenic trioxide and mix 200 ml of white turbine oil with 100g of camphor. Boil and mix continuously till the mixture came to sludge condition.

### **Procedure:**

- Freshly collected crab is wiped with cotton or tissue paper
- Dry it for 10 minutes
- Open the head shell and remove the flesh inside it
- Make a small hole at the bottom of the leg by using hand driller
- Cleanly remove all decaying material inside in it
- Clean the blood and brain inside the skull with the cotton buds
- Thoroughly apply the arsenic paste inside the shell, head and inside the skull
- Stuff the cotton inside the shell
- Apply clear varnish on the surface of the crab
- Dry and label the specimen and add some camphor to reduce smell.

## **PRESERVATION OF PIGEON**

### **Dry preservation:**

Dry preservation is the process that keeps specimen from decomposing. Both vertebrate and invertebrate can be preserved through this technique.

### **Materials/chemicals required:**

Scissor, chloroform, hand gloves, face mask, forceps, scalpel, needle, cotton thread, pliers, hammer, knife, artificial eyes, butter sheet, cotton, zinc oxide, Arsenic trioxide, Non-detergent soap, white turbine oil, tissue paper, pins, cardboard, camphor, cottonbuds, pulichaikeerai fiber , tray, bone cutter, brushes, clear varnish.

### **PREPARATION OF ARSENIC PASTE:**

Warm 1 liter of distilled water with non-detergent soap cutted into small pieces, mix 500g of Zinc oxide and 500g of Arsenic trioxide and mix 250 ml of white turbine oil with 100g of camphor. Boil and mix continuously till the mixture came to sludge condition.

### **Procedure:**

- Must wear face mask and hand gloves
- Take a piece of cotton and dip it in chloroform
- Gently handle the pigeon and keep the dipped cotton on the nostril open
- The bird slowly dies then dissect the ventral portion
- Remove the skin slowly remove the blood using cotton
- Pull the flesh out and take out the eyes
- Clean the blood and brain inside the skull with the cotton buds
- Thoroughly apply the arsenic paste inside the skin, head and inside the skull
- Stuff the cotton along with pulichaikeerai fiber to retain the actual size
- Stich with cotton thread after fully stuffed, place the artificial eyes to retain natural one
- Apply clear varnish on the leg
- Dry and label the specimen and add some camphor to reduce smell.

## **PRESERVATION OF FOWL**

### **Dry preservation:**

Dry preservation is the process that keeps specimen from decomposing. Both vertebrate and invertebrate can be preserved through this technique.

### **Materials/chemicals required:**

Scissor, chloroform, hand gloves, face mask, forceps, scalpel, needle, cotton thread, pliers, hammer, knife, artificial eyes, butter sheet, cotton, zinc oxide, Arsenic trioxide, Non-detergent soap, white turbine oil, tissue paper, pins, cardboard, camphor, cotton buds, pulichaikeerai fiber , tray, bone cutter, brushes, clear varnish.

### **PREPARATION OF ARSENIC PASTE:**

Warm 1 liter of distilled water with non-detergent soap cut into small pieces, mix 500g of Zinc oxide and 500g of Arsenic trioxide and mix 250 ml of white turbine oil with 100g of camphor. Boil and mix continuously till the mixture came to sludge condition.

### **Procedure:**

- Must wear face mask and hand gloves
- Take a piece of cotton and dip it in chloroform
- Gently handle the pigeon and keep the dipped cotton on the nostril open
- The bird slowly dies then dissect the ventral portion
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- Clean the blood and brain inside the skull with the cotton buds
- Thoroughly apply the arsenic paste inside the skin, head and inside the skull
- Stuff the cotton along with pulichaikeerai fiber to retain the actual size
- Stich with cotton thread after fully stuffed, place the artificial eyes to retain natural one.
- Apply clear varnish on the leg
- Dry and label the specimen and add some camphor to reduce smell.