

“ Sheel, Sharir, Adhyayan ”
Aundh Shikshan Mandal, Aundh



Raja Shripatrao
Bhagawantrao
Mahavidyalaya, Aundh.
(Satara)

Experiential Learning

B.SC. PART 1,2 ZOOLOGY

DUCK.



Kingdom : - Animalia

Phylum : - Chordata

Class : - Aves

Order : - Anseriformes

Family : - Anatidae

Genus : - Anas/ Cairina

Species : - Anas platyrhynchos
(also Cairina moschata)

Subspecies : - A.P. domesticals

Trinomial name : - Anas platyrhynchos
domesticals

- 1) Ducks are farmed for their meat, eggs & down
- 2) A minority of ducks are also kept for foie gras production
- 3) Their eggs are blue green to white, depending on the breed
- 4) Ducks can be kept free range in cages, in barns or in batteries.
- 5) Ducks enjoy access to swimming water but do not require it to survive
- 6) They should be fed a grain & insect diet
- 7) It is a popular misconception that ducks should be fed bread. Bread has limited nutritional value & can be deadly when fed to developing ducklings.
- 8) The females of many breeds of domestic ducks are unreliable at sitting their egg & raising their young.
- 9) It has been a custom on farms for centuries to put duck egg under broody hens for hatching.
- 10) Duck are also kept for their ornamental value.

PARROT



kingdom :- Animalia
phylum :- chordata
class :- Aves
order :- psittaciformes
super family :- psittacoidea
family :- psittaculidae
sub family :- psittaculinae
Tribe :- psittaculini
Genus :- psittacula
Species :- p. krameri
Binomial name :- psittacula

Krameri

Champ's
IKON
LONDON BY CONCEPT

1) The rose-ringed parakeet also known as the ring-necked parakeet is a gregarious tropical Afro-Asia parakeet spp. that has an extremely large range

2) The rose-ringed parakeet is sexually dimorphic.

3) The adult male sports a red or black neck ring & the hen & immature birds of both sexes either show no neck rings, or display shadow like pale to dark grey neck rings

4) It is herbivorous & not migratory

5) In India they feed on cereal grains & during winter also on pigeon peas

6) Both sexes have a distinctive green colour

7) Rose-ringed parakeets measure on average 40 cm (16 inch) in length including the tail feathers a large portion of their total length.

8) In the wild this is a noisy spp. with an unmistakable squawking call.

9) Wild flocks also fly several miles to forage in farmland & orchards causing extensive damage.

10) Rose ringed parakeet feeding on fresh leaves.



CROW



kingdom: - Animalia
phylum: - chordata
class: - aves
order: - passeriformes
family: - corvidae
genus: - corvus
species: - c. splendens

Binomial name: -
corvus splendens

1) The house crow (Corvus splendens) also known as the Indian greynecked, ceylon or colombo crow

2) It is betw the jackdaw & the carrion crow in size (40cm) 16 inch in length but it slimmer than either

3) The forehead, crown, throat & upper breast are a richly glossed black, whilst the neck & breast are a lighter grey brown in colour

4) The wings, tail & legs are black

5) It's associated with human settlements throughout its range. from small village to large cities

6) House crow resting in shadow on a roof top with slaughterhouse refuse to eat.

7) House crow feed largely on refuse around human habitations small reptiles, & other animals such as insects & other small invertebrates egg, nestlings grains & fruits

8) The voice is harsh kaaa-kaaa

9) there are regional variations in the thickness of the bill

PIGEON.



Kingdom : - Animalia

phylum : - chordata

class : - Aves

order : - columbiformes

family : - columbidae

Genus : - Columba

species : - c. livia

Subspecies : - c.I. domestica

Trinomial name : - Columba livia
domestica

Roll No.:

Exam seat No.: 30177

Sheel, Sharir, Adhyayan

AUNDH SHIKSHAN MANDAL'S

RAJA SHRIPATRAO BHAGWANTRAO

MAHAVIDHYALAYA, AUNDH.

Tal.- Khatav, Dist.- Satara

ARTS & SCIENCE

Department of zoology

LABORATORY CERTIFICATE

This is to certify that

Mr./Mrs./Miss Pawar Ratika Hrachard

Has satisfactorily completed the necessary study tour in practical zoology for the B.Sc. part I / II / III as prescribed by Shivaji University Kolhapur, and this report represent his / her bonafie work in the year 2016 – 2017

Date :



Teacher incharge



Examiner



Head of department

INTRODUCTION

As per syllabus of Shivaji University Kolhapur for B.Sc.II we visit to fresh water ecosystem of kumbhargaon.

We celebrate the International forest as a study tour. On 21st March our zoology department arrange educational tour for students of B.sc. part II Prof. Pol S.H., Prof. Mulla. A.A. and students. Tour gives us such opportunity of observing & studying different animals & thier habits in their habitat i.e. their natural home.

We observe & study the migratory birds at kumbhargaon (Baramati) The habits like feeding, swiming, flying, group behaviour, alertness are seen in this tour. We also study some fishes wich are caught by by local fisherman. Some molluscs like Pila globosa bivalves are also present on marginal area of waterbody.

Date & period of tour

21st march 2017

Route of tour:

Aundh



Pusegaon



Baramati



Bhigwan



Kumbhargaon



Baramati



Aundh.



Bhigwan-Kumbhargaoon is a small dusty town on the border of Pune & Solapur district in the central maharashtra, in India. It is located on the Pune-Solapur Highway around 105 km from Pune on the backwaters of Ujani dam. Bhigwan is famous for bird watching especially flamingo & wild life photography. It is also known as mini Bharatpur.

The Bhima river which originates in Bhimashankar of the western ghats & it has 22 dams on it. Of these the Ujani dam is the terminal dam on the river & it is the largest into one of the largest wetlands in Asia.

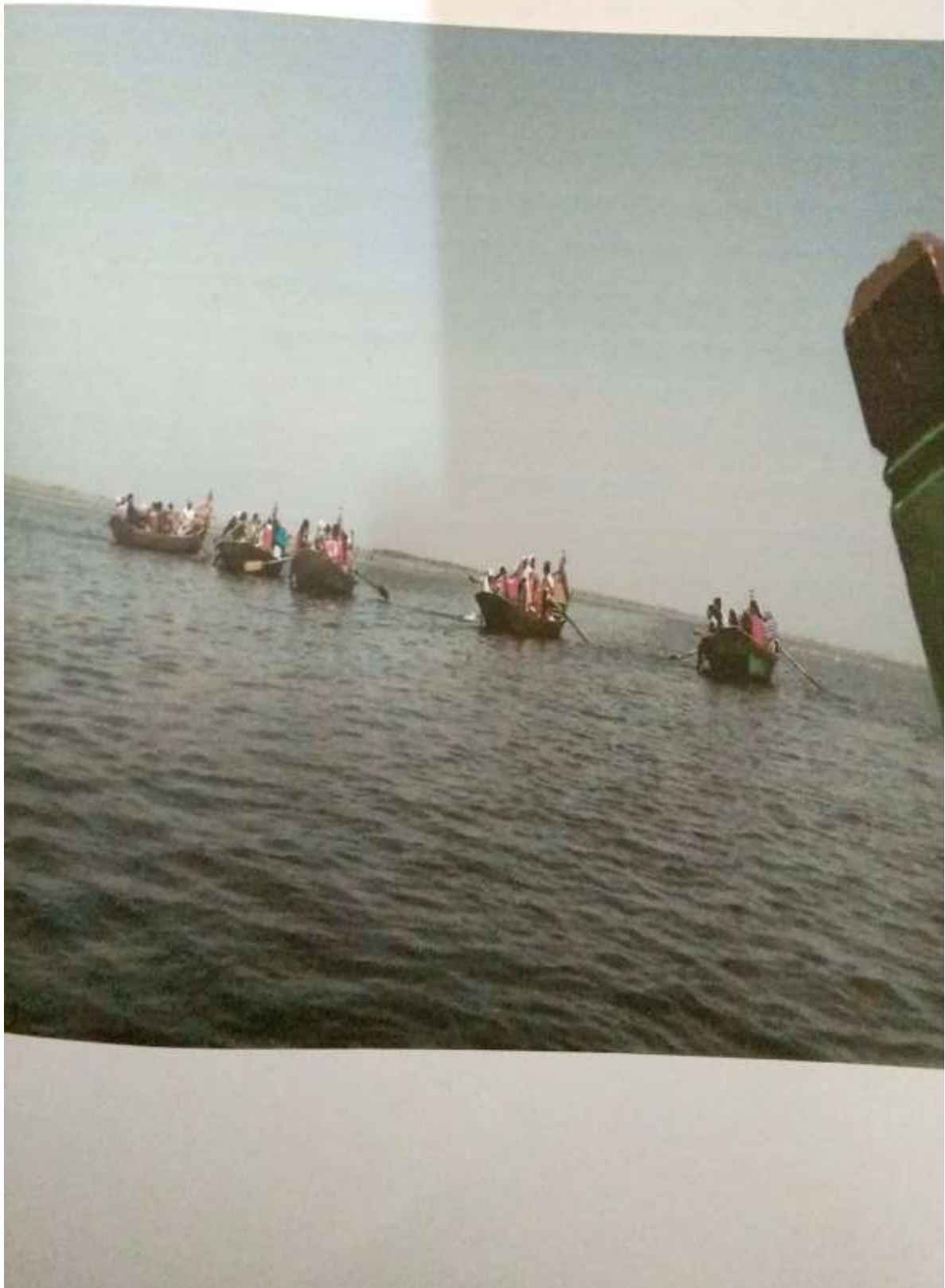
The main attraction here are the bird listed below

1. Greater flamingo's (रोहित)
2. Painted strocks (चित्र बलाक)
3. Glossy ibis(मोरपंखि)
4. River tern(नदी सुरयि)
5. Black headed ibis(कुदळया)
6. White throat kingfisher(बंड्या)
7. Eurasian spoon bill(चमचा)
8. Brahminy kite
9. Osprey(मासेमार गरूड)
10. Black tailed godwit(पंकज)
11. Whiskered tern(कुरकिरा)
12. Ruddy shelduck
13. Greay heron(राखी बगळा)
14. Bar headed goose
15. Asian openbill(मग्धबलाक)
16. Woolly necked stork(कांडेसर)

Purpose of study tour

1. To study the birds in their natural habitat.
2. To visit place of biological interest.
3. To study aspects of applied zoology.
4. To study the interrelationship between the animals and environment.
5. To create interest, curiosity, in students.

Student in boat



THE HABIT LIKE FEEDING

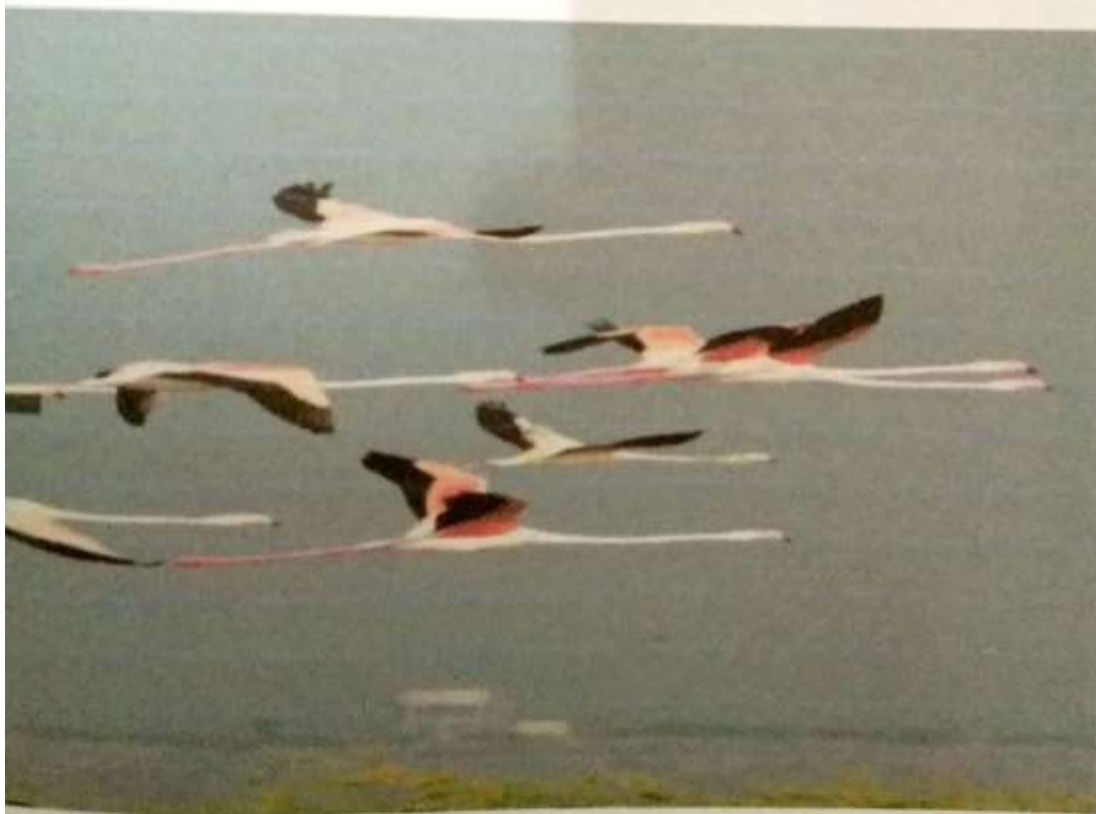
The birds feed on fishes. They catch the fish from water very cleverly. They feed on different types of small species.



FLAMINGO

Behaviour in Flamingo

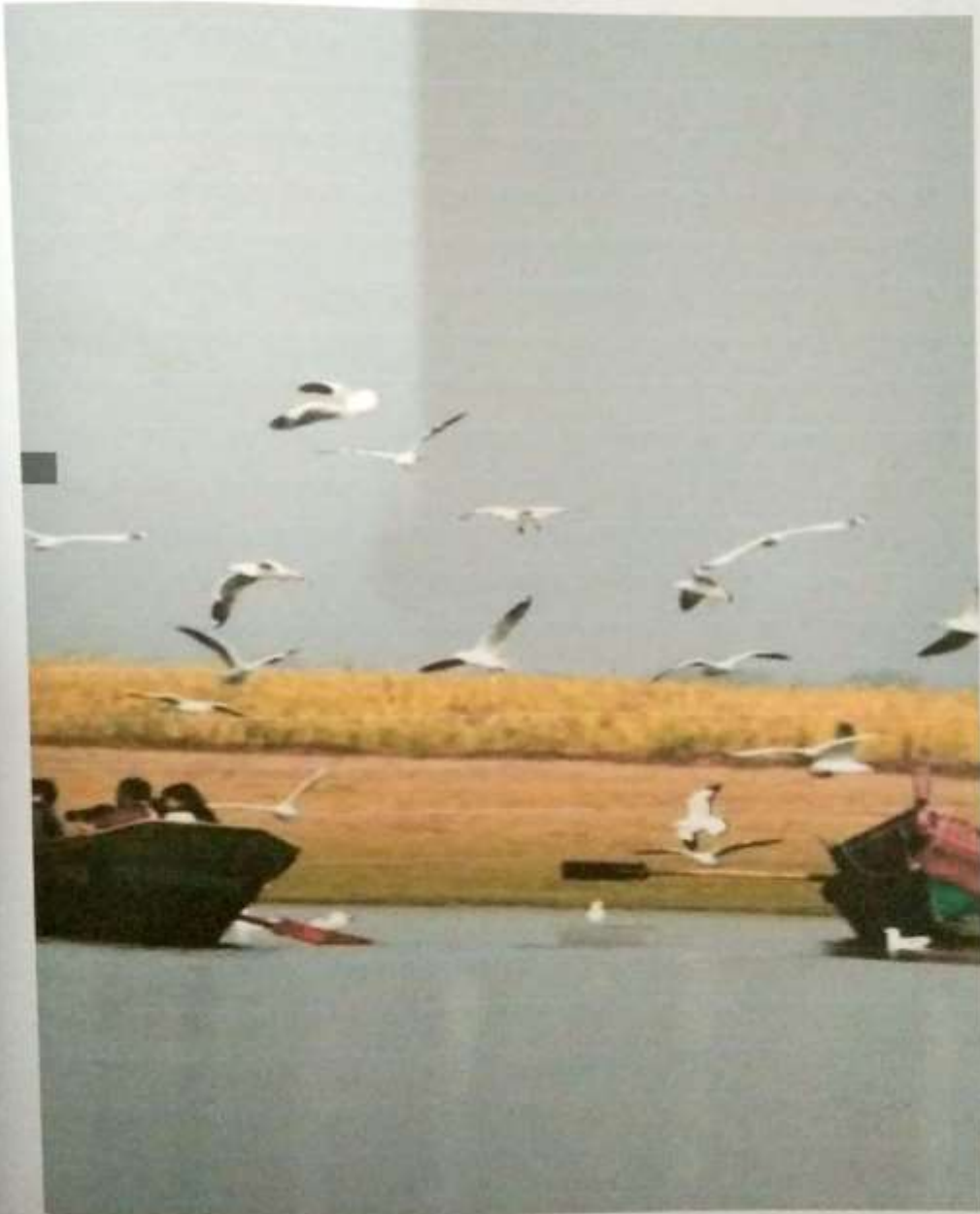
Flamingo are live in large flocks all are fly at a time. One is the main leader. It is migrate from Saiberiya at Nov to dec and return in may at summer. It is fly in sky with V shaped manner according to strongness.



ALERTNESS IN BIRD



TOUR REPORT ON BIRD SANCTUARY IN
KUMBHARGAON



Roll No.

Exam seat No. 32759

SHEEL,SHARIR,ADHYAYAN

AUNDH SHIKSHAN MANDAL's

RAJA SHRIPATRAO BHAGWANTRAO

MAHAVIDALAYA , AUNDH.

Tal: khatav, Dist: satara

ARTS & SCIENCE

DEPARTMENT OF ZOOLOGY

LABORATORY CERTIFICATE


This is to certify that

Mr./Mrs./Miss.WAYDANDE SIMA UMAJI has satisfactorily completed the necessary course in ZOOLOGY TOUR REPORT for the B.Sc. part I/I/III (as prescribed by Shivaji University, Kolhapur and this represent his/her bonafide work in the year 2017-2018

Date




3-4-18


HEAD
Department of ZOOLOGY
B. B. M., Aundh.

Teacher Incharge Examiner Head of Department


INTRODUCTION

As per syllabus of Shivaji University Kolhapur for B.Sc. 2 we visit to marine water ecosystem of Malvan.

Day on 21st Dec. and 22 Dec. our Zoology department arrange educational tour for students of B. Sc part 2 .Prof. Pol S. H. ,Prof. Mulla.A.A. and students. Tour gives us such opportunity of observing and studying different animals and their habits in their habitat i.e. their natural home.

We observe and study the fishes and marine animals malvan-sindhudurg . The habits like swimming group behavior , alertness are seen in this tour . We also study some fishes , and marine animals which are caught by local fisherman. Some molluscs like *Pilaglobosa* bivalves. *Sepia* are also present on marginal area of waterbody. some arthropods and like crab, prawn, lobster are also observed.

PURPOSE OF STUDY TOUR

- ❖ To study the marine animals in their natural habitat.
 - ❖ To visit place of biological interest.
 - ❖ To study aspects of applied zoology.
 - ❖ To study the inter relationship between the animals and environment.
 - ❖ To create interest , curiosity , in students .
- 

INDEX

Sr.No.	Name of fish.	Remarks
1.	Hammhead Shark	
2.	Star fish	
3.	Cuttle fish	
4.	Seer fish	
5.	Rohu fish	



Hammhead shark



Rohu Fish



cattle Fish



star Fish



seer Fish



Hammerhead shark

- **Kingdom** :Animalia
- **Phylum** : Chordata
- **Class** : Chondrichthyes
- **Order** : carcharhiniformes
- **Family** : sphyrnidae

The known species range from 0.9-0.6m in length & weight from 3-580kg. They are usually light gray & have a greenish tint. Hammerhead sharks are known to eat a large range of prey such as fish & octopus are particular favourite

Starfish

- **Kingdom** : Animalia
- **Phylum** : Echinodermata
- **Super class** : Asterozoa
- **Class** : Asteroidea

Starfish are marine invertebrates. They typically have a central disc & five arms, though some species have at larger number of arms many species are brightly coloured In various shaped of red or orange, while other are blue, grey or brown.

[Type text]

Roll No:-

Exam Seat No:-
2017056278

SHEEL ,SHARIR, ADHYAYAN

AUNDH SHIKSHAN MANDAL'S

RAJA SHRIPATRAO BHAGWANTRAO MAHAVIDYALAYA,
AUNDH.

Tal. Khatav , Dist. Satara

DEPARTMENT OF ZOOLOGY

CERTIFICATE

This is to certify that,

Mr./Mrs./Miss. Mane Amruta Gorkhnath

has satisfactorily completed the necessary course in practical Zoology for the B.Sc. part-II as prescribed by Shivaji University Kolhapur, and this report represent his/her bonafied work in the year 2018-2019

Date : 4 / 4 / 2019

Teacher in charge

Examiner

Head of Department

INTRODUCTION

As per syllabus of Shivaji University Kolhapur for B.Sc.-II we visit to marine water ecosystem of Malvan.

On 30 Jan. and 31 Jan. our zoology department arrange educational tour for students of B.Sc.-II. Prof. Pol S.H. , Prof. Mulla A.A. And students. This are participated in tour gives us such opportunity of observing and studing different animals and their habits in their habitat. I.e. in their natural home.

We observed and study the fishes and marine animals Malvan-Sindhurg. The habits like swimming group behaviour alertness are seen in this habitat. We also study some fishes and marine animals which are caught by local fisherman. Some molluses like bivalves, sepia are also present on marginal area of water body. Some are arthropods and like crab, prawn, lobsterare also observed.

We study sandy sea shore as well as rocky sea shore. On second day of tour we visit to sindhudurg fort and study rocky sea shore. Some animals like barnacals, sea cucumber, crab are observed on rocky sea shore.

PURPOSE OF STUDY TOUR

- 1) To study the marine animals in their natural habitat.
- 2) To visit place of biological interest.
- 3) To study aspects of applied zoology.
- 4) To study the interrelationships between animal and environment.
- 5) To create interest, curiosity in students about subject .

ROUTE OF TOUR

Aundh



Karad



Kolhapur (Shivaji University)



Radhanagari (Dam)



Malvan



Tarkali Beach



Malvan Beach



Sindhudurg

PRAWN

Classification-

Kingdom- Animalia

Phylum- Arthropoda

Subphylum- Crustacea

Class- Malacostraca

Order- Decapoda

Suborder- Debdribranchata

Family- Penaeidae

Genus- Fanneroopenaeus

Species- *F. indicus*

- The common prawn is a well known swimming crustacean, which is pinkish brown in colour and features reddish spots and lines.
- The head and thorax are protected by a relatively thin carapace which, as in many species of prawns.
- Prawn is a common name for small aquatic crustaceans with an exoskeleton and ten legs, some of which can be eaten.

CRAB

Classification-

Kingdom- Animalia

Phylum- Arthropoda

Class- Crustacea

Order- Decapoda

- Crab is dark blackish to brownish in colour.
- It is oval and flattened. The main part of body which is prominent and visible is cephalothorax.
- The main parts of the body are head, thorax and abdomen.
- A hard chitinous exoskeleton is present over body.
- Crab has five pairs of legs.
- First pair of legs is called as cheliped. It is modified to grasp the food. It is also used for offence and defence.
- Remaining four pairs of legs are walking legs. These are thoracic appendages.



SEER FISH (SURMAI)

Classification –

Kingdom- Animalia,

Phylum- Chordata,

Class- Actinopterygii,

Order- Perciformes,

Family- Scombridae,

Genus- Scomberomorus,

Species- *S. guttatus*

- Seer fish is a sea fish among the mackerel variety of fishes.
- It is found in around the Indian ocean and adjoining seas.
- It is known by various names such as 'surmai' in Marathi, Hindi and Urdu, 'Viswan' in Konkani.
- It is a popular gamefish, growing up to 45kg.
- In addition to being cooked and eaten when fresh, it is also used to make fish pickle, usually eaten as a condiment with rice.



Sea Fish

STINGRAY

Classification-

Kingdom- Animalia

Phylum- chordate

Class- chondrichthyes

Order- myliobatiforms

Suborder- myliobatiodoi

Family- Urolophidae

- Stingrays are a group of rays.
- Which are cartilaginous fish related to sharks.
- Stingrays are common in coastal tropical and subtropical marine water throughout the world.
- Most stingrays have one or more barded stingers on the the tail, which are used exclusively in self defense.
- The stinger may reach a length around 35cm and its underside has two grooves with venom glands.
- The stinger is covered with a thin layer of skin.



PAPLET

Classification-

Kingdom – animalia

Phylum – actinopterygii

Class- actinopterygii

Order- percoformes.

Family- Bramidae

- Pomfrets are perciform fishes belonging to the family Bramidae.
- They are found in the Atlantic, Indian and pacific oceans.
- Fish meet white in colour.
- Several species are important food sources of humans, especially Brama.
- The earlier form of the pomformes names was pamphlet, a word which probably ultimately comes from Portuguese pampo referring to various fish such as the blue butterfish.









RAJA SHRIPATRAO BHAGWANTRAO MAHAVIDYALAYA AUNDH

Department Of ZOOLOGY

CERTIFICATE OF ZOOLOGY TOUR REPORT

This is certify that

Mr/miss *Chavan Sharad Ganga-sam* has

Satisfactorily complete the necessary course in practical zoology for the b.sc part II as prescribed by Shivaji university Kolhapur, and this report represent his /her bonafie work in the year 2019-20

Teachear In charge

examiner

Head of department

HEAD
Department of ZOOLOGY
R. B. M. AUNDH

Date / /20

Page:

RAJA SHRIPATRAO
BHAGWANTRAO MAHAVIDYALAY
AUNDH CSATARAJ
DEPARTMENT OF
ZOOLOGY STUDY
TOUR REPORT
2019-20

Sign:

lurs

GOLD

Flowers

Introduction :-

The Purpose of the educational trip was to provide students practical and theoretical experience of field work. The B.Sc II Zoology Students visited Malvan for annual educational tour in 2019-20. The tour offers a rare opportunity for the students to learn natural habitat of the animals in the field.

Objective of the Study tour :-

- To study the marine animals in their natural habitat.
- To visit place of biological interest.
- To study aspects of applied zoology.
- To study the inter relationship between the animals & environment.

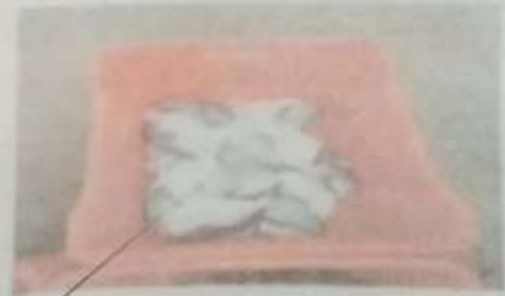
zoopods and like crab, prawn, lobster are also observed. Total 40 students visited at malvan in 2019-20.

Outcomes of study tour :-

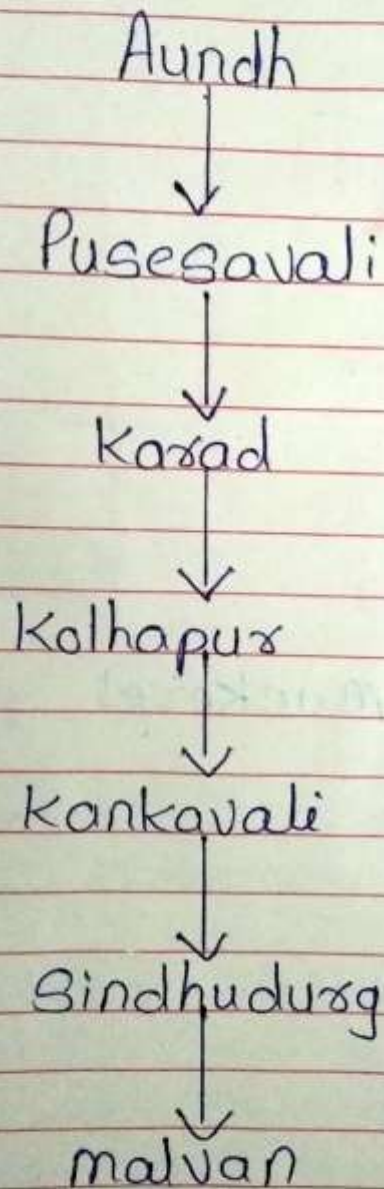
- Students learn from observation & experience of field work.
- Students observe natural habitat of birds, reptilian and amphibian animals.
- Students develop skill regarding organization, management, decision making and problem solving.
- Students observe the birds migrated in search of food and reproduction.
- Students also observe different types of fishes.

Sign: _____

VISIT TO MALAYAN BEACH



* Route of tour



Indian Mackerel classification :-

Kingdom :- Animalia
Phylum :- Chordata
Class :- Actinopterygii
Order :- Perciformes
Family :- Scombridae
Genus :- Rastrelliger
Species :- R. kanagusta.

Characteristics :-

1. Body is cylindrical.
2. Their scales, present at all, are extremely small.
3. However, fish have an opto-kinetic reflex in their visual systems which can be sensitive.

Red Snapper

classification:-

Kingdom :- Animalia
Phylum :- chordata
class :- Actinopterygii
order :- Perciformes
family :- Lutjanidae
Genus :- Lutjanus
Species :- L. campechanus

characters:-

1. Unlike other Red Snapper have short, sharp, needle-like teeth, but they lack the prominent upper canine teeth found on the mutton and mangrove Snapper.
2. The common adult length is 60 cm.

ELECTRIC RAY (Torpedo)

Scientific classification:-

Kingdom :- Animalia

Phylum :- Chordata

Class :- Chondrichthyes

Order :- Torpediniformes

Characters :-

1. They produce electric discharge of 8 to 220 volts.

2. They use this current for attacking prey and defence.

3. The body is thick and flabby with soft skin.

4. A pair of kidney shaped electric organs are at the base of pectoral fins.

Prawn

Classification :-

Kingdom :-	Animalia
Phylum :-	Arthropoda
Subphylum :-	Crustacea
Class :-	Malacostraca
Order :-	Decapoda
Suborder :-	Debirbranchita
Family :-	Penaeidae
Genus :-	Penaeus
Species :-	P. indicus

Characters :-

1. The common prawn is a well known swimming crustacean, which is pinkish brown in colour & features reddish spots and lines.
2. The head and thorax are protected by a relatively thin carapace which, as in many species of prawn.
3. Prawn is a common name for small aquatic crustaceans with an exoskeleton and ten legs, some of which can be eaten.

2015-16

Page No. _____

zoology.

Tour & Report

Name → kalkar Jyoti chandra kant

Jh

[Page No.]

[Roll No.]

[Exam Seat No.]

SHEEL, SHARIR, ADHYAYAN

AUNDH SHIKSHAN MANDAL'S

RAJA SHRIPATRAO BHAGWANTRAO MAHAVIDYALAYA,

AUNDH.

Tal. Khatav, Dist. Satara

DEPARTMENT OF ZOOLOGY

CERTIFICATE

This is to certify that,

Mr./Mrs./Miss. *Katakar Jyoti Chandrakant*.

has satisfactorily completed the necessary course in practical Zoology for the B.Sc. part I/II as prescribed by Shivaji University Kolhapur, and this report represent his/her bonafied work in the year **2015-16**.

Date



Teacher in charge

Examiner



Head of Department

HEAD
Department of ZOOLOGY
R. B. M. Aundh,

* Iethyophis . *

* Kingdom :- Animalia (Multicellular motile)

* phylum :- Chordata (Presence of notochord)

* sub-phylum :- . Vertebrata .

* Characteres :-

1) Iethyophis is a elongated , burrowing , limbless amphibia .

2) Head with eye and nostril .

3) skin is provided with numerous transverse grooves . minute classified scale are embedded in the grooves of skin .

4) Eye are covered by skin hence they are non-functional . Hence known as blindworm .

5) Parental care is well developed , female coils herself around the gelatinous egg mass to protect the egg .

* Toad *

* Kingdom: - Animalia (multicellular motile)

* phylum: - Chordata (presence of notochord)

* sub-phylum: - vertebrata.

* Characters:-

1) skin is rough, dry & warty on the dorsal surface.

2) Eyes are very large but nostrils are small.

3) Tympanum is well developed.

4) four limb bears three webless finger & thumb pad.

5) Hind limbs are five lobes with greatly reduced web.

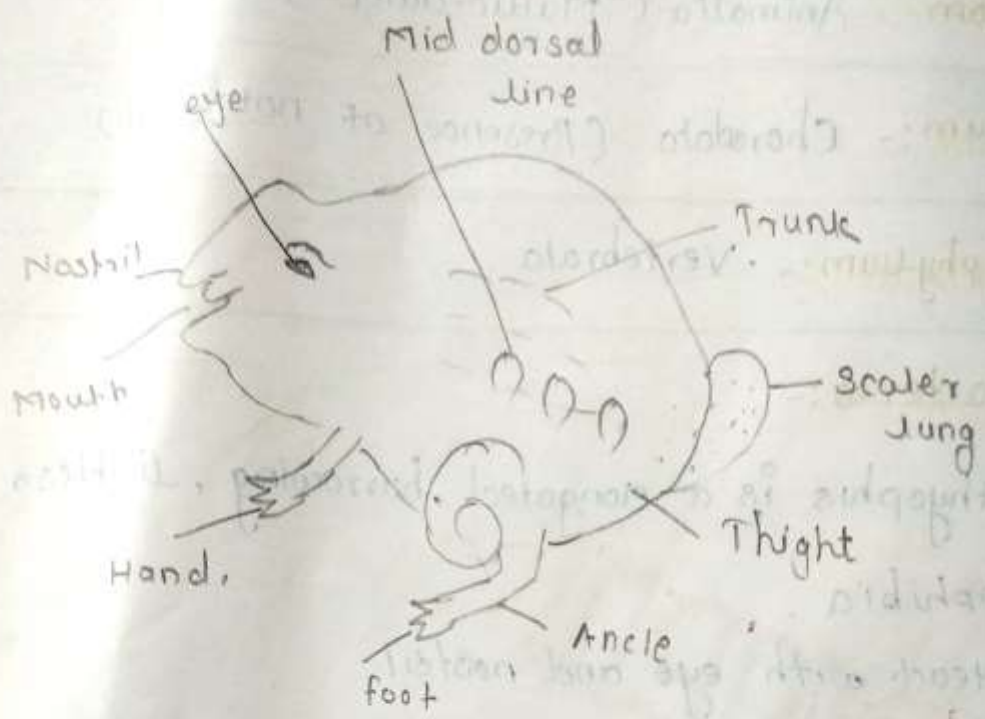


Fig - Toad.

* Salamander *

* Kingdom :- Animalia (Multicellular mobile)

* Phylum :- Chordata (presence of Notochord)

* Sub-phylum :- vertebrates

* Characters :-

- 1) Body is lizard like and colour is black with yellow spot.
- 2) Tail is cylindrical and limbs are well developed and strong.
- 3) Tympanic membrane and middle ear are absent.
- 4) Viviparous.
- 5) Teeth are absent.

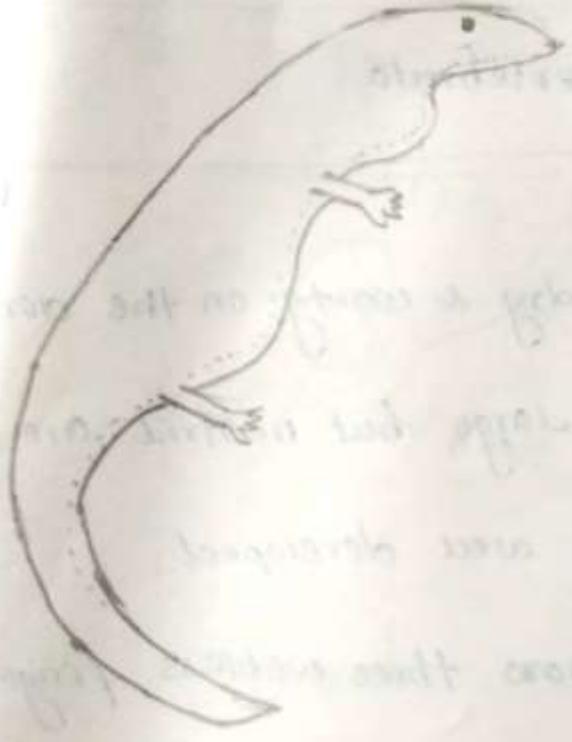


fig - Salamander

* frog *

* Kingdom:— Animalia (Multicellular Multicellular)

* phylum:— chordata (Notochord is present)

* Sub-phylum:— vertebrata.

* Characters:—

- 1) Tail is lost in adult amphibia.
- 2) Limb are powerful adapted for leaping of swimming type of locomotion.
- 3) Skin is naked without endoskeleton.
- 4) Body is short and broad.
- 5) Teeth are present only on upper jaw.

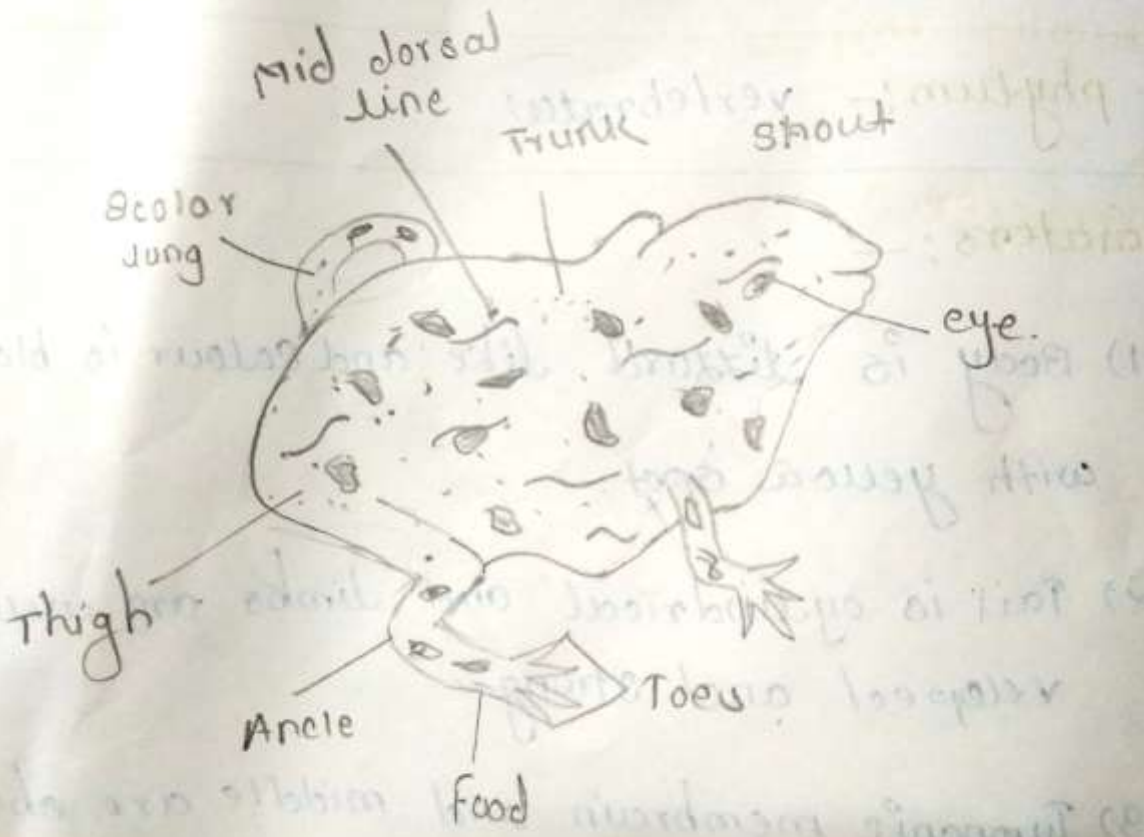


Fig - Frog.

Page No. 11

2016-17

C. R. No.

Exam Seat No.

SHEEL, SHARIR, ADHYAYAN

AUNDH SHIKSHAN MANDAL'S

RAJA SHRIPATRAO BHAGWANTRAO MAHAVIDYALAYA,
AUNDH.

Lal. Khatav, Dist-Satara

DEPARTMENT OF ZOOLOGY
CERTIFICATE

This is to certify that,

Mr./Mrs./Miss. *Magar Shaila Sambhoji*

has satisfactorily completed the necessary course in practical Zoology for the B.Sc. part. I/II as prescribed by Shivaji University Kolhapur, and this report represents his/her bonafied work in the year 2016-17

Date:

Teacher in charge

Examiner

Head of Department

HEAD
Department of ZOOLOGY
R. B. M., Aundh.

ZOOLOGY

STUDY TOUR REPORT

Name :: Major Shaila Sambhaji

Class - BSc - I

Batch :: B

Exam No ::



Certificate.

Page No. 1

Roll No -

Exam seat No -

SHEEL, SHARIR, ADHYAYAN
AUNDH SHIKSHAN MANDAL'S

Raja Shripatrao Bhagwantrao
Mahavidyalaya, Aundh.

Tal. Khataw, Dist. Satara.
ARTS & SCIENCE

Department of Zoology.
CERTIFICATE

This is certify that.

Miss. Magar Shaila Sambhaji has satisfactorily completed the
the course in Zoology study tour report for the B.Sc.
part I (as prescribed by Shivaji University, Kolhapur
and this report represent her bonafie work in the year
2016 - 2017.

Date

Teacher Incharge

HEAD
Department of ZOOLOGY
R. B. M. Aundh.

Examiner.

Index.

Page No. _____

No.	Name of the subject	Page No.	Sign.
1)	Introduction	1	
2)	Catla	2	
3)	Rohu	3	
4)	Cuppy	4	
5)	Jhinga	5	
6)	Crab.	6.	

Introduction.

Page No. _____

In this study report, I wrote information about pisces (fishes). It is a information about gills, fins and their diagrams. Also other description about their nature and occurrence. The fishes are taken in this report which is easily available in local market of Mundh. Pusesavali, and also available in Yeliv tank. The fishes taken in this report are Catla, Labeo and Guppy and Shinga.

The all fishes are taken in this report are available in Khatau taluka.



Catla.

Page No. 2

Name - Catla.
Type of tail fin - Homocercal tail

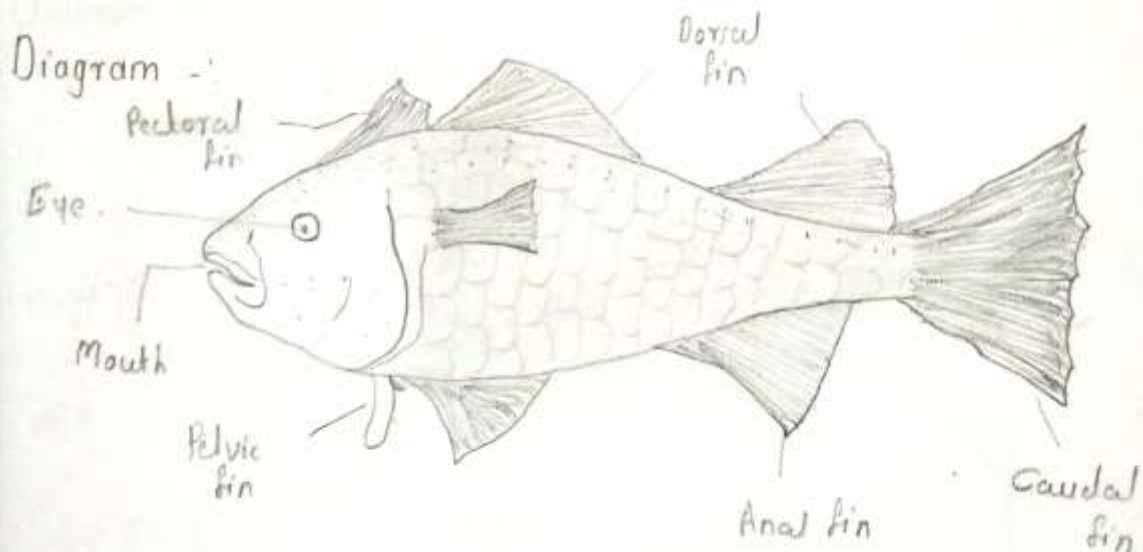


Fig. - Catla

Catla is found in rivers and lakes. Catla is a fish with large and broad head, a large protruding lower jaws. It is one of the most aquacultural and fresh water species. It is grown in polyculture pond with other fishes. Catla is sold and consumed fresh locally and regionally. It is transported on ice.

Fish of 1 to 2 kg of weight are preferred by the consumers. It is commonly used in aquacultural purpose.

Labeo

Page No. 3

Name - Labeo

Common name - Rohu.

Type of tail fin - Homocercal.

Diagram :-

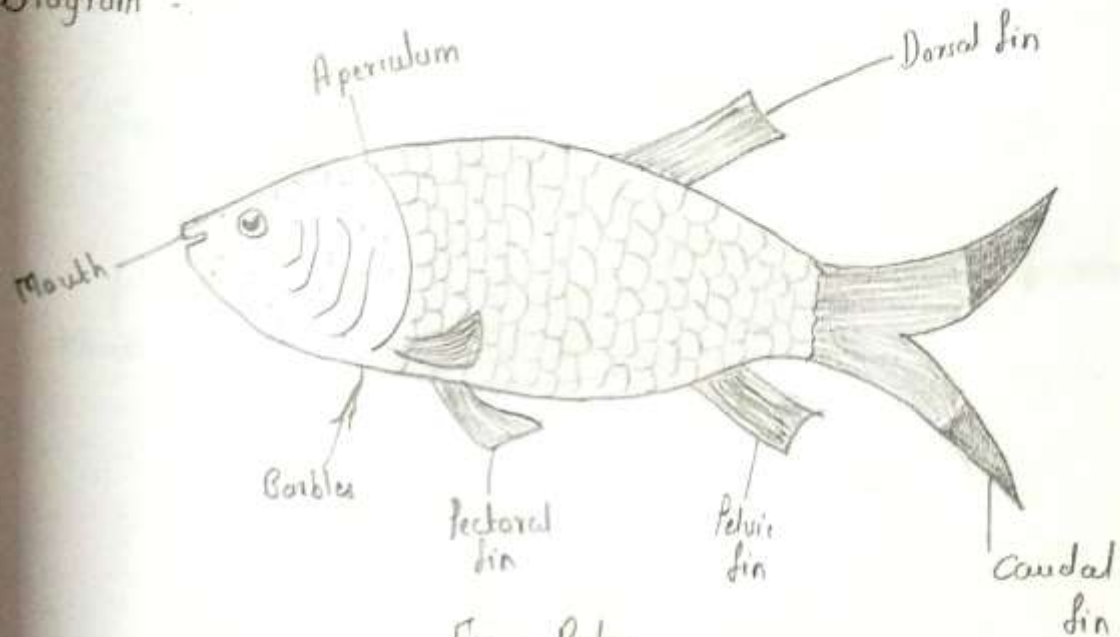


Fig - Rohu

It is a fresh water fish and commonly known as rohu. The body of this fish is spindle shaped laterally compressed and brownish coloured. The gills are covered by operculum. Paired and unpaired fins are present. Tail fin is homocercal.

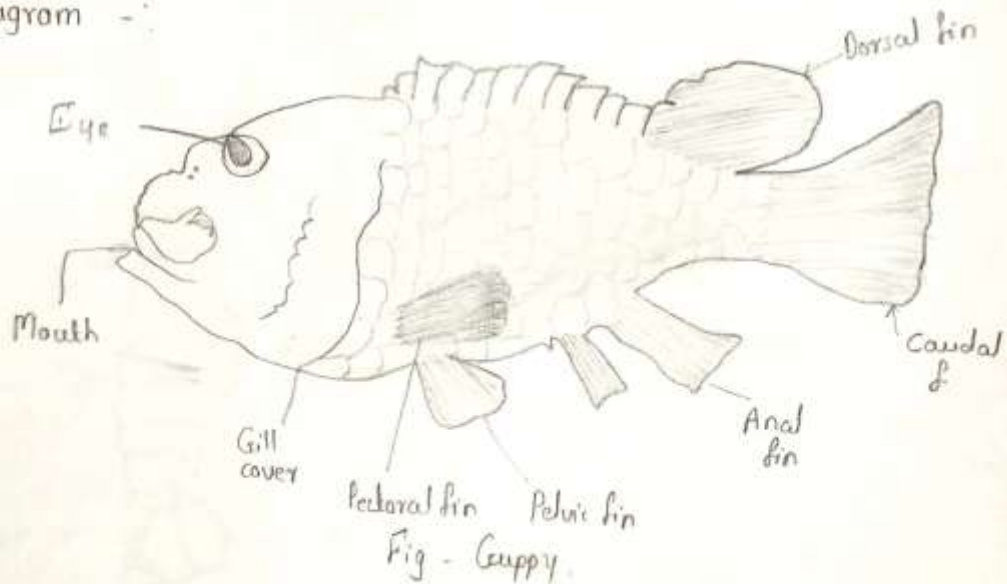
These fish is commonly known for its food value to human being. It is also used in aquacultural purpose.

Guppy.

Page No. 4

Name - Guppy.

Diagram - :



The guppy is also known as milliofish and rainbow fish. It is one of world's most widely distributed tropical fish and one of the most popular fresh water fish.

Male guppies which are smaller than female are duller in colour. Wild guppies are generally feed on variety of food source. Guppies are used as modern organism.

Guppy fish help to spread of malaria decreasing by eaten mosquito larva. It helps to secure the human life by mosquito and as well as malaria.

Jhinga

Page No. 5

Name :- Jhinga
English name - Prawn.

Diagram :-

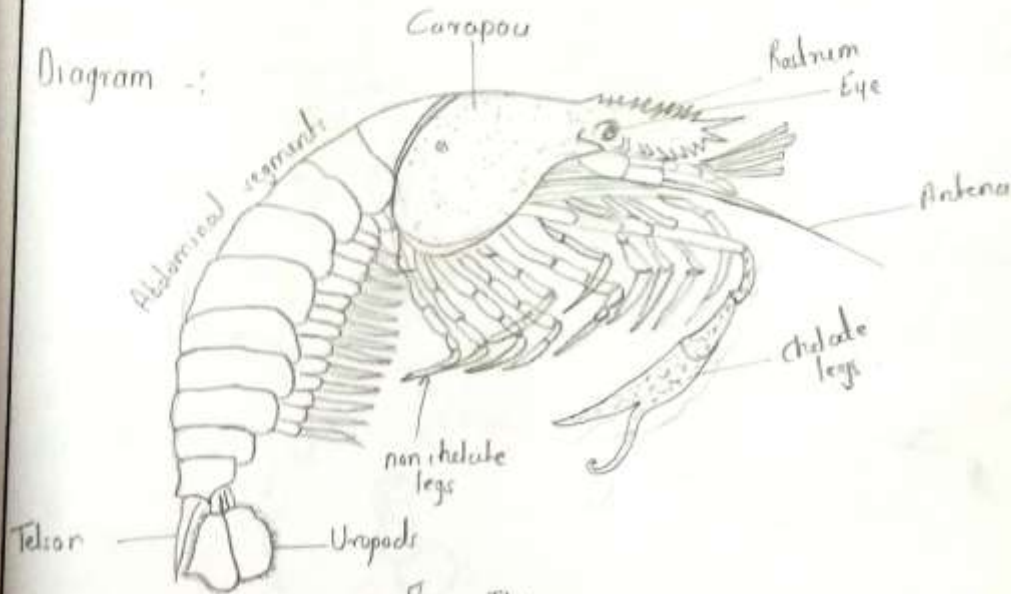


Fig - Jhinga

The name of jhinga in english is prawn. The Indian prawn is commonly called Jhinga, chingri, sungat in Hindi and Marathi respectively. The Indian prawn is used for human consumption and is the subject of sea fishery. It is also the subject of aquaculture.

It is narrow, usually 6 to 8 inches long, slimy fish. Under normal cooking conditions the fresh prawn is dipped into the batter and deep fried. It contain high energy level which requires human body.

Crab

Page No. 6

English name :- Crab
Common vernacular name :- Khekda.

Diagram :-

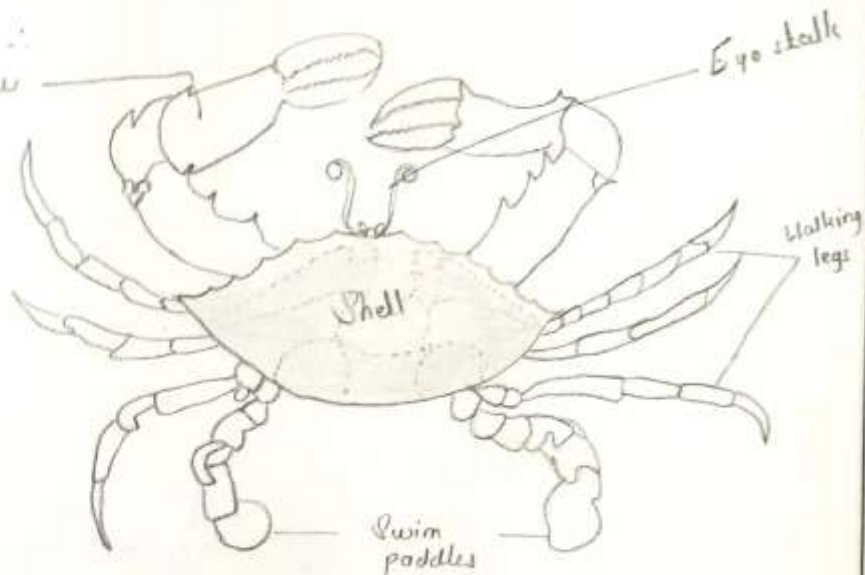


Fig. Crab

Crab is live in all the world's oceans, in fresh water and on land. They have single pair of claws. Crab are generally covered with a thick skeleton which is made up of by calcium carbonate.

Many crab live in fresh water and on land, particularly in tropical regions. There are about 350 species of crab are of fresh water, terrestrial or semi-terrestrial species. Crab is one of the species which is used for human food as like preparing the Khekda corny, Masala khekda etc which is more tasty in food.

2017-18
TOUE

Repoæt

RS

Name :- Gosavi Swapnali Strikant

College :- R.S.B.M. Aundh

Subject :- Zoology

Roll No.

Exam Seat No.

SHEFI, SHARIR, ADHYAYAN

AUNDH SHIKSHAN MANDAL'S

RAJA SHRIPATRAO BHAGWANTRAO MAHAVIDYALAYA,

AUNDH,

Tal. Khatav, Dist-Satara

DEPARTMENT OF ZOOLOGY

CERTIFICATE

This is to certify that,

Mr/Mrs/Miss. *Gosavi Swapnali Shrikant*

has satisfactorily completed the necessary course in practical Zoology for the B.Sc. part I/II as prescribed by Shivaji University Kolhapur, and this report represents his/her bonafied work in the year **2017-18**

Date:



Teacher in charge



Examiner



Head of Department

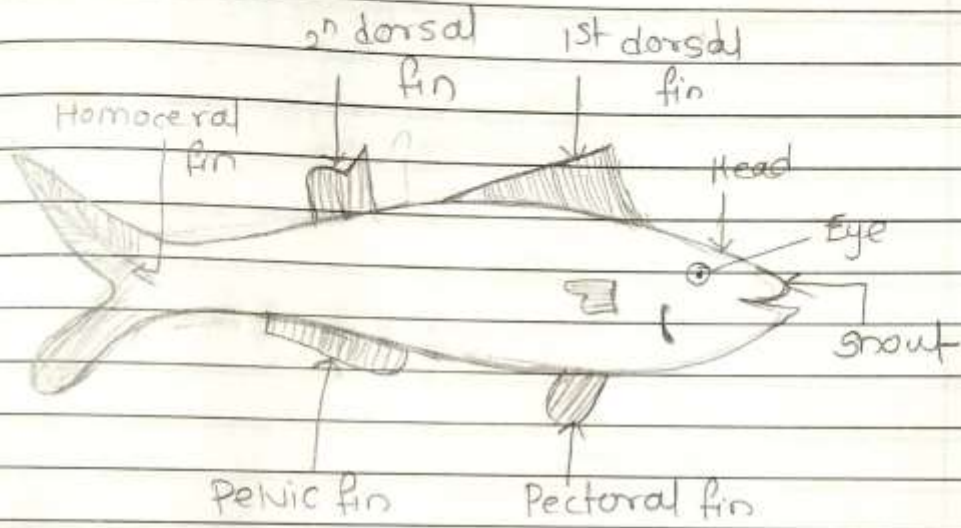
HEAD
Department of ZOOLOGY
R. B. M. Aundh,

Pisces

General Characters:-

- 1) They are cold blooded vertebrates.
- 2) Body is stream lined with well developed muscular, paired and unpaired fins.
- 3) Gills are the organs for respiration.
- 4) Dermal scales form the exoskeleton.
- 5) Fins are supported by fin rays.
- 6) The Head shows the presence of eye, nostrils, ears as the sense organs.
- 7) Mouth has true jaw.
- 8) Lateral line system of receptor is present.
- 9) Internal ear has three semicircular canals.
- 10) Ribs are present.

1) Labeo

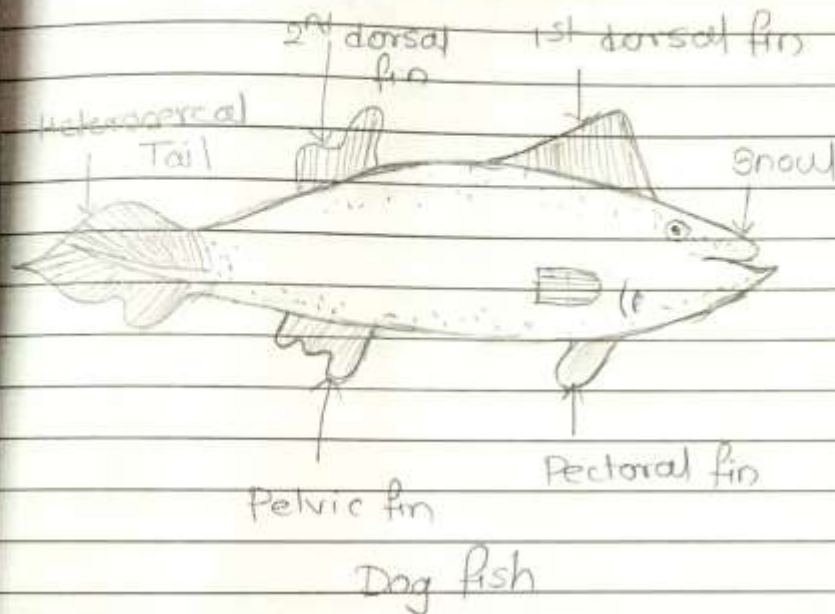


Labeo

General characters:-

- 1) Labeo is fresh water fish and commonly known as rohu.
- 2) Body is spindle shaped, laterally compressed brownish coloured and covered with large cycloid scales.
- 3) Mouth transverse with thick lips.
- 4) Gill are covered by operculum.
- 5) Paired and unpaired fins are present
Tail fins is homocercal.

2) Dog Fish



General Characters:-

- 1) It is commonly called as Dog fish or Dog shark.
- 2) spindle shaped body and is divisible into head tail and trunk.
- 3) Trunk bears of a pair of fins. a pair of anterior and posterior fins.
- 4) Tail is turned upward and it is Heterocercal.
- 5) Lateral line is present.
- 6) Heart is two chambered.

Date . / / 201 (39)

3). Hammer headed shark

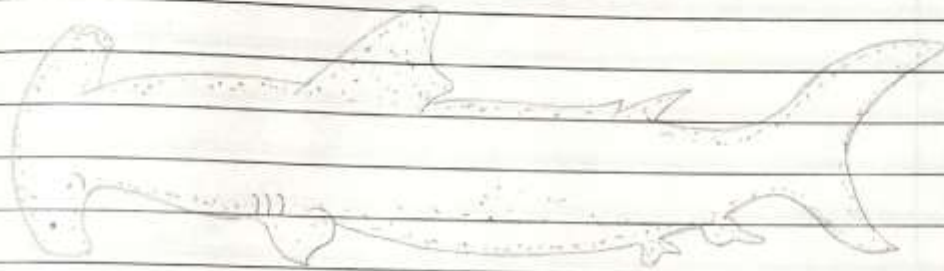


Fig. - Hammer headed shark

General characters:-

- 1) Head is hammer shaped so, called as hammer headed shark.
- 2) five pair of gill slits are present .
- 3) paired and unpaired fins are present
- 4) sexes are sepeates .
- 5) Mouth coesentic and lateral in position
- 6) The eyes are with nictitating membrane and lies at tip of lateral lobes .

Signature

4) Eel Fish



Fig. - Eel Fish

General characters:

- 1) Gill slits join to form single transverse and ventral.
- 2) Air bladder absent.
- 3) They have pelvic breeding habit.
- 4) It is divided into head, trunk and tail.
- 5) Body is slender elongated and shark like.
- 6) It is fresh water fish and can live several hours outside the water.

Amphibia

General Characters:-

- 1) They can live both in water and on land.
- 2) These are cold blooded vertebrates.
- 3) Skin is smooth, slimy and without exoskeleton.
- 4) Digits are without claws.
- 5) Skin, lungs and gills are organs of respiration.
- 6) Heart is three chambered.
- 8) Fertilization is external.

1) Frog :-

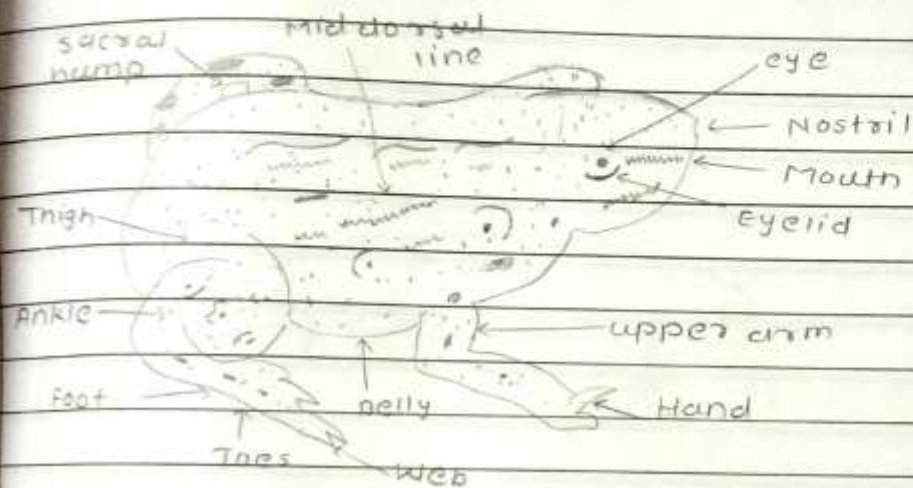
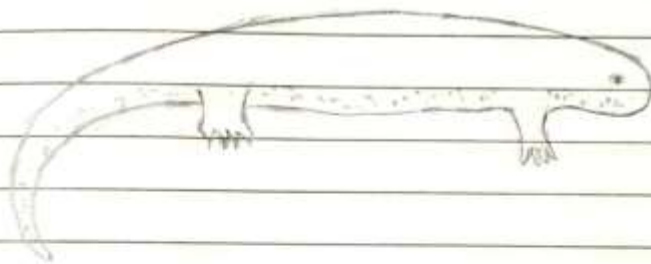


Fig. - Frog

General characters:

- 1) Tail is not present in adults amphibians
- 2) Skin is naked without endoskeleton
- 3) Body is short and broad.
- 4) Tympanum is quite distinct.
- 5) Teeth are present only on upper jaw.
- 6) Limbs are powerful, adapted for leaping and swimming.
- 7) Nuptial pad is present in male frog.

2) Salamanders.



Salamander

General characters:-

- 1) Body is lizard like and colour is black with yellow spot.
- 2) Tail is cylindrical and limbs are well developed strong.
- 3) Teeth is / are absent.
- 4) It is viviparous.
- 5) Tympanic membrane and middle ear are absent.

2018 - 19

Zoology Project

Name: Pawar Rutuja

Namdev

standard : BSC - Ist

PRN no :

2018055141

Project Name :-

Darwin's

Finches



[Page No.]

2018-19

Roll No.

Exam Seat No.

SHEEL, SHARIR, ADHYAYAN

AUNDH SHIKSHAN MANDAL'S

RAJA SHRIPATRAO BHAGWANTRAO MAHAVIDYALAYA,
AUNDH.

Tal. Khatav, Dist. Satara

DEPARTMENT OF ZOOLOGY
CERTIFICATE

This is to certify that,

~~H/H.~~ /Mrs. Pawaz Rutuja Namdev

has satisfactorily completed the necessary course in practical Zoology for the B.Sc. part I/II as prescribed by Shivaji University Kolhapur, and this report represent his/her bonafied work in the year 2019-20

Date



Teacher in charge



Examiner



Head of Department

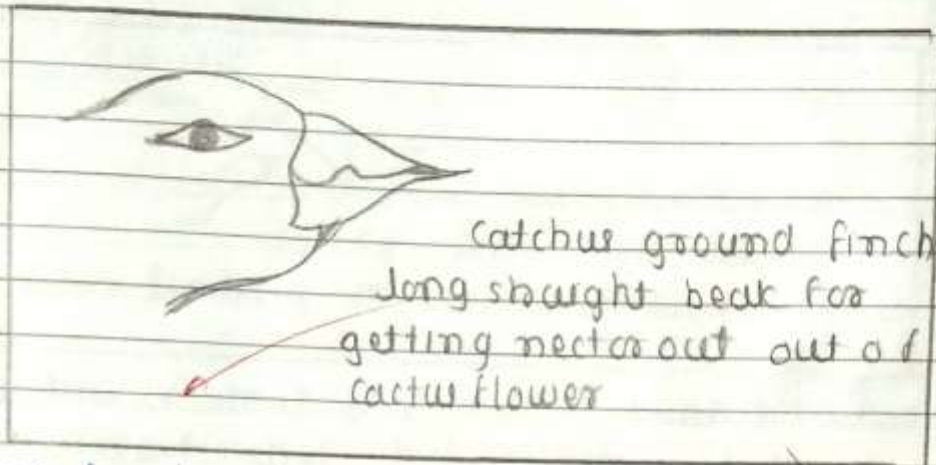
HEAD
Department of ZOOLOGY
R. B. M. Aundh,

Ground Finches :-



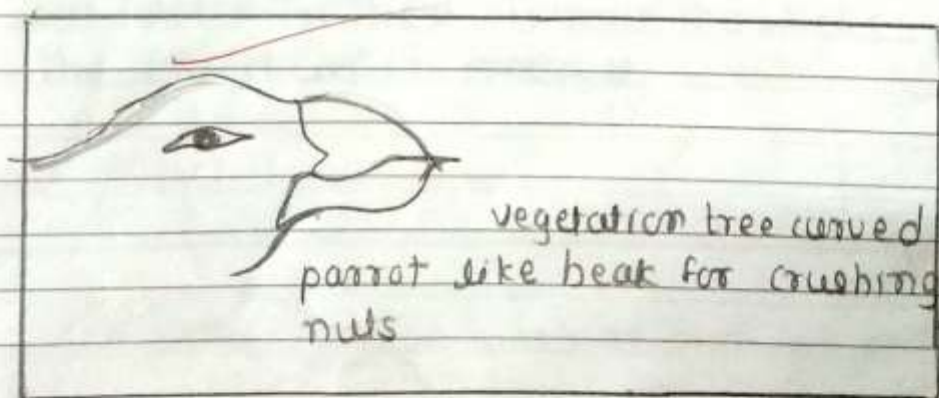
They are closely related to the fringilled ancestor. These finches are closely related to the fringilled ancestor. These finches are included under the sub-genus *Geospiza*. They have heavy conical bills to crush seeds among the ground finches themselves there are birds with large beak small beak and beak with intermediate size. The large ones can eat larger & harder & ignore the small beak. Thus competition betⁿ the various ground finches is reduced & they are able to occupy the same habitat.

Cactus ground finch :-



These finches have long curved beak and a split tongue. They probe the flowers and flowers pea cactus for nectar and feed upon the soft pulp of this cactus.

Insectivorous Tree finches :-



They have beaks much like the beak of vegetation tree finches

They feed on insects excavated from woody tissues.

Woodpecker Finch



Insect having 2 or 3 inches
curved parrot like beak
for feeding on beetles other insects

It has a stout & a straight beak similar to that of tree finches but longer - It is completely insectivorous. It probes barks & leaf clusters & bores wood as a woodpecker does when an insect is exposed the woodpecker uses its long tongue to extract the insect from the crack. The finch lacking the long tongue picks up a small stick or cactus spine hold the latter lengthwise on its beak & probe out insect in them its drop the sticks & size the insect as it emerges.

Warbler Finch :-



warbler slender
beak for catching
small insects on the wing

It has a slender warbler^{like} finch beak. It searches leaves and bushes for small insects and sometimes catches insects by the wing as a true warbler does.

b) Cut outs of beaks of different species

- 1) Seed eating beaks - Sparrowfinches & cardinals
- 2) Cutting beak - Jungle crow
- 3) Fruit eating beaks - Parrots.
- 4) Insectivorous beak - Swallow, robins
- 5) Blood chiseling beak - Woodpecker
- 6) Tearing beak - Eagles, hawks, owls
- 7) Mud probing beak - Sand piper.
- 8) Fish catching - storks, kingfisher
- 9) Pouched beak - Pelican
- 10) Spatulate beak - Spoonbill

The entire modern avian world is characterised by absence of teeth. The upper and lower jawbone become elongated to form a peculiar beak or bill covered by a bony sheath or bill covered by horny sheath called rhamphotheca. Beak serves both as mouth & hand. The diversity of form of beak is mainly related to the type of food eaten & to the manner of feeding.

Birds exhibit almost definite variations in shape size and structure of beak of which only some of the most important & common type are as follows

Roll No:-

Exam Seat No:- 12057

SHEEI, SHARIR, ADHYAYAN

AUNDH SHIKSHAN MANDAL'S

RAJA SHRIPATRAO BHAGWANTRAO MAHAVIDYALAYA,
AUNDH.

Tal. Khatav , Dist. Satara

DEPARTMENT OF ZOOLOGY
CERTIFICATE

This is to certify that,

Mr./Mrs./Miss. Pawar Siddhi Sanjay

has satisfactorily completed the necessary course in practical Zoology for the B.Sc. part- I/ II as prescribed by Shivaji University Kolhapur, and this report represent his/her bonafied work in the year 2019-20

Date : 9-1-2020

Teacher in charge

Examiner


Head of Department
HEAD
Department of ZOOLOGY
R. B. M. Aundha

Name: Pawar Siddhi Sanjay

Subject: Zoology

Std: B.Sc. I

College: R.S.B.M. Aundh

Guided By: Pol Madam,
Mulla Sir.

Index

Sr No	<u>Topic</u>	Page No
1)	Introduction.	4
2)	Route of tour.	5
3)	Purpose of study tour.	6
4)	Objections of the study tour.	7
	Birds	
1)	Pigeon.	8
2)	Peacock.	9
3)	Parrot	10
4)	Hen	11



- | | | |
|-----|---------------|----|
| 5) | Crow. | 12 |
| 6) | Owl. | 13 |
| 7) | Woodpeckers. | 14 |
| 8) | Hummingbirds. | 15 |
| 9) | Sparrow. | 16 |
| 10) | Flamingo. | 17 |

Introduction.

As per syllabus of Shivaji University Kolhapur for F.Y.B.Sc. we study the local ecosystem. We visit Yamai hill area for bird watching. Study tour give such opportunity of observing different animals, birds and their habitat that is their natural home. We observed and study the local birds. The habits like feeding, flying, group behavior, alertness are seen in the tour.

On 7 Jan 2009 our zoology department arrange educational tour for students of B.Sc-I. Prof. Pol S.H., Prof. Mulla A.A. And students are participated in tour. We observed and study different birds on and near Yamai Hill.



Route of Tour.

Aundh



R.S.B.

Mahavidyalay Aundh



Yamai Hill

Aundh



R.S.B.

Mahavidyalay Aundh

List of Birds: Name and Photo / sketch.

- 1) Pigeon.
- 2) Peacock.
- 3) Parrot.
- 4) Hen.
- 5) crow.
- 6) owl.
- 7) woodpecker.
- 8) Hummingbird.
- 9) Sparrow.
- 10) Flamingos.



Purpose of Study Tour.

- 1) To study the Birds in their natural habitat.
- 2) To visit place of biological interest.
- 3) To study aspects of applied zoology.
- 4) To study the interrelationships between animals and environment.
- 5) To create interest, curiosity in students about subject.

Objectives of the Study Tour

The objectives of the study tour as follows:

- 1). To increase interest of student in zoology.
- 2). To enhance the knowledge about the Aves.
- 3). To study adaptation and habits of local birds.



Pigeon

Scientific name: Columbidae.

Order : Columbiformes.

Clutch size: Marquesan imperial pigeon: 1

Columbidae is a bird family consisting of pigeons and doves. These are stout-bodied birds with necks, slender bills that in some species feature fleshy carers.



Family : Phasianidae.

Kingdom : Animalia.

Lifespan : Indian peafowl 10-25 year.

Peafowl is a common name for three bird species in the genera Pavo and Afropavo of the family phasianidae, the pheasants and their allies. Male peafowl are referred to as peacock, and female peafowl are referred to as peahens.





Woodpecker

Scientific name : Picidae.

Family : Picidae.

Class : Aves.

Woodpeckers are part of the family Picidae, that also includes the piculets, wry-necks, and sapsuckers. Members of this family are found worldwide, except for Australia, New Guinea, New Zealand, Madagascar, and the extreme polar regions.



Date :



Hummingbird.

Scientific name: Trochilidae.

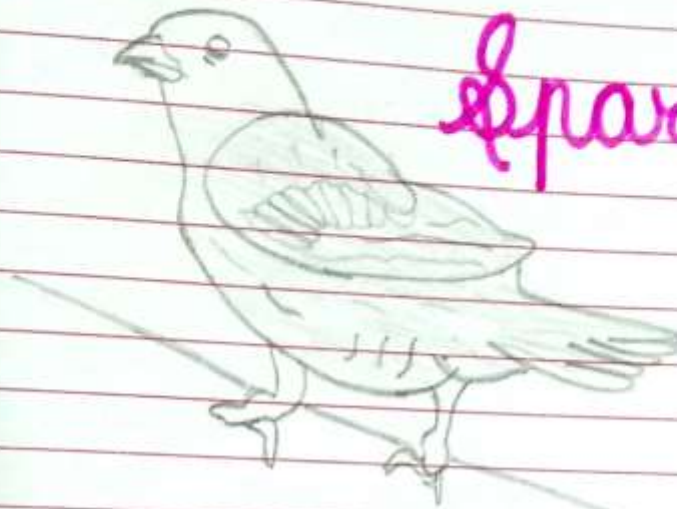
Higher classification: Apodiformes.

Lifespan: 3-5 years.

Hummingbirds are birds native to the Americas and constituting the biological family Trochilidae. They are the smallest of birds, most species measuring 7.5-13 cm in length.

colors





Sparrow.

Scientific name: Passeridae.

Speed: House Sparrow 46 km/h.

Lifespan: House Sparrow 3 years.

Old world sparrows are a family of small passerine birds. They are also known as true sparrows, names also used for a particular genus of the family, passer.





Flamingo.

Family : Phoenicopteridae.

Class : Aves.

Kingdom : Animalia.

Order : Phaenicopteriformes.

Phylum : Chordata.

Species are native to Africa, Asia and Europe.

