Digras Vibhagiya Shikshan Prasarak Mandal's
Bapuraoji Butle Arts, Narayanrao Bhat Commerce &Bapusaheb Patil Science College, DIGRAS DIST. YAVATMAL.
Affiliated to Sant Gadge Baba Amravati University,
Amravati Maharashtra.
[NAAC Re-accredited 'A' (CGPA. 3.16)]

College Code : (Sr.) 405

College Code : (Jr.)
Pay Unit – 146
Board – 08.04.002

Website : www.bbnbbpcollege.org

E-Mail : principal.bnbcollege@gmail.com

AQAR

2023-2024

1.3.3 Number of courses that include experiential learning through project work/field work/internship during the year.2023-2024

List of Students BA II Semester III & IV Students who take project on Environmental Studies.

S.NO.	Name of Students
1.	AADESH DEVIDAS TAYADE
2.	AARTI PANDURANG JADHAO
3.	ABHAY KISHOR RATHOD
4.	ABHISHEK RAMESH CHAVHAN
5.	ACHAL YUVRAJ PAWAR
6.	AISHWARYA SANTOSH DHORE
7.	AJAY DEVICHAND RATHOD
8.	AJAY RAMA RUDE
9.	AKANKSHA MOHAN KAMBLE
10.	ANAND SUKHDEV GAVHANE
11.	ANANTA ASHOK LOKHANDE
12.	ANIKET RAMPRASAD PAWAR
13.	ANJALI ASHOK SHIKARE
14.	ANJALI BALU KHARTADE

14.	ANJALI BALU KHARTADE
15.	ANJALI NAMDEV RATHOD
16.	ANKITA DURGADAS JADHAV
17.	ASHVINI VITTHAL RATHOD
18.	BAHAR IBRAHIM KHAN
19.	BHAGYASHRI ASHOK RATHOD
20.	BHAGYASHRI RUPSING ADE
21.	BHAKTI SANTOSH WANKHADE
22.	BHUDEV DILIP RATHOD
23.	CHAKULI SANJAY PADADHANE
24.	DAKSHATA SURESH CHAVHAN
25.	DEVANAND MADHUKAR LANDAGE
26.	DHIRAJ SURAJ SUROSHE
27.	DIMPAL RAJESH MORE
28.	DIPALI PANDURANG DAWALE
29.	DNYANESHWAR RAJESH CHAVHAN
30.	DNYANESHWAR SUNIL RATHOD
31.	DURGA DILIP KAMBLE
32.	DURGESH BHAGVAN BHAGYAWANT
33.	FALGUNI SANTOSH INGOLE
34.	GAJANAN JAGDEV TADASE
35.	GANESH KISAN KALE
36.	GAURAV DIGAMBAR DHANGAR
37.	GAYATRI LAXMAN LADKE
38.	GAYATRI VILAS POTE
39.	GOPAL SUKHADEO ADE
40.	KARINA PANDIT RATHOD
41.	KOMAL SUKHADEO KHADE
42.	LAXMI NAMDEV BODKHE
43.	NAMRATA DHANESHWAR JADHAV

44.	NANDANI PRABHAKAR KHANDARE
45.	NIKHIL BABARAO BODKHE
46.	NIKITA SHIVAJI FUKE
47.	NIKITA SHUBHASH JAGADLE
48.	NITA SANTOSH JADHAO
49.	NIVRUTTI RAMESH RATHOD
50.	OMU HEMANT RATHOD
51.	PANKAJ SITARAM MORE
52.	PAYAL MILIND SAGANE
53.	PAYAL NARAYAN POHANKAR
54.	PAYAL SANTOSHRAO KADAM
55.	PAYAL VINOD HAJARE
56.	POOJA MAHADEV JAWAKE
57.	POOJA VITTHAL SANDVAKAR
58.	PRACHI BHAGWAN BHAGYAWANT
59.	PRAKASH RAMRAO MIRASE
60.	PRUTHVIRAJ DADARAO KAMBLE
61.	PUNAM KISHOR RATHOD
62.	RAHUL MAHADEV BHOYAR
63.	RAHUL VASANTA HOLGARE
64.	RANI GOVERDHAN PAWAR
65.	RANI RAMESH CHANDEL
66.	RAVI KISHOR RANMALE
67.	RAVI ROHIDAS RATHOD
68.	RESHMA VILAS TALE
69.	RISHIKESH JAYCHANCD SHERE
70.	ROSHAN ASHOK HOLGARE
71.	ROSHANI BHIMRAO RATHOD
72.	ROSHANI MANOHAR SHEMBADE
73.	ROSHANI SAKHARAM CHAVHAN

74.	RUPALI DINESH DEWALE
75.	RUPALI GAJANAN JAVAKE
76.	RUPALI PRAKASH JAISWAL
77.	RUTUJA GAJENDRA KHERE
78.	SAKSHI KAILAS VIDULKAR
79.	SALONI PREMSING RATHOD
80.	SALONI VASANTA ADE
81.	SANDHYA DNYANESHWAR PATRE
82.	SAPNA HAJUSING RATHOD
83.	SARIKA NAVNATH TARPHE
84.	SAURABH NAGORAO JADHAO
85.	SAYALI DHANSING CHAVHAN
86.	SHIVANI BHAGVAN KADAM
87.	SHREYA YASHWANT KASAMBE
88.	SHRUTI SANTOSH TAYADE
89.	SHRUTI SUNIL BEHERE
90.	SNEHA BHAIRUSING RATHOD
91.	SNEHAL MURLI JADHAV
92.	SONAM ARJUN JADHAO
93.	SONU KAILAS GHADYALE
94.	SRUSHTI MAHADEV MEHETRE
95.	SURAJ ASHOK HODGIR
96.	SWAPNIL DHANRAJ ZINGURDE
97.	SWATI DEVRAO AMBURE
98.	TEJAS AJABRAO RANMALE
99.	TUSHAR RAVINDRA MANTUTE
100.	VAISHALI DILIP CHAVHAN
101.	VAISHNAVI GAJANAN SALODKAR
102.	YASH ANANDRAO HIWRALE
103.	YASH DEVKANT PAWAR

104.	YOGESH SUNIL RAMAVAT
105.	YOGITA MAHADEV SATPUTE

List of Students BCOM. II Semester III & IV Students who take project on Environmental Studies.

S.NO.	Name of Students
1.	AADESH BALIRAM NANOTE
2.	ABHAY VIJAY CHAVHAN
3.	ALKAF ZAKIR
4.	ANIKET SUNIL DAKARE
5.	ANIS PAPPU PAPPUWALE
6.	AYUSHI GOKUL CHAUDHARI
7.	BIPIN RAJKUMAR PRAJAPATI
8.	ANJALI DNYANESHWAR RANMALE
9.	DAMINI GAJANAN GHATGE
10.	DANISH ANWAR SHEIKH
11.	DNYANESHWAR SUBHASH CHAVHAN
12.	GANESH ANIL PANDE
13.	GAURI TANAJI CHIRDE
14.	GAYATRI VINOD SABLE
15.	HAK SHABIR ABDUL
16.	HARIOM VINOD DHANVE
17.	KALYANI ANIL UTTARWAR
18.	KIRTI PURUSHOTTAM BAJARE
19.	KOMAL SHRIRAM NIMKAR
20.	KRUSHANA CHANDRASHEKAR LANDGE
21.	KUNAL HARIKISAN BHISANKAR
22.	MAHESH DILIP PAWAR
23.	MAYURI DEVIDAS KAMBLE

24.	MAYURI GAJANAN INGALE
25.	MUBASSHIR RAZIK MOHAMMAD
26.	NANDANI KISHOR SALUNKE
27.	NEHA KIRAN SALUNKE
28.	PALLAVI DATTA SARE
29.	PANKAJ GOPAL JADHAV
30.	PAYAL SHAM KHANZODE
31.	PRACHI GANESH JADHAV
32.	PRACHI SUNIL BUTTIKAR
33.	PRASHANT BABARAO CHAVHAN
34.	PRATIKSHA RAJU KANDALKAR
35.	PUJA DAYARAM SAHADEO
36.	RAJ DNYANESHWAR RATHOD
37.	RAKSHA PRABHAKAR MATRE
38.	RAMESHWAR NARAYAN PAWAR
39.	RAVI AMARSING RATHOD
40.	RENUKA SANJAY WALASKAR
41.	REVAM SAHADEV INGOLE
42.	RUTUJA GANESH GAWANDE
43.	SAKSHI VILAS SUKODE
44.	SAKSHI VITTHAL KALE
45.	SAMRUDDHI GAJANAN KATHALE
46.	SANIYA BHIKA GALLAKATU
47.	SHANTANU DNYANESHWAR WANKHADE
48.	SHILPA SUBHASH BHAGAT
49.	SHIVAM DATTA MORE
50.	SHIVAM SUDHAKAR SARKATE
51.	SHYAM GOVIND VANJARI
52.	SOYAL SULEMAN KHAN
53.	SUSHIL PUNDALIK SAWALE

54.	TABBU ABDUL TAWAR
55.	TANVI VIJAY SAWAD
56.	TAUSIK ZARIF KHAN
57.	TUSHAR DIPAK CHAURE
58.	VAIBHAVI JITENDRA DATIR
59.	VAISHNAVI PRAMOD GUGHANE
60.	VAISHNAVI SANDIP WANKHADE
61.	VIKAS VIJAY RATHOD
62.	VISHAL VINOD CHAVHAN
63.	VIVEK MANOJ DAKARE

List of Students B Sc. I Semester I & II Students who take project on Environmental Studies.

S.NO.	Name of Students
1.	AAYESHA SIDDIQUA SAYYAD AYAZ
2.	ABHIJIT JAYSING JADHAO
3.	ACHAL CHANDRAKANT KAMDAR
4.	ADITYA GAJANAN BHOKARE
5.	AJAY VIJAY DAWARE
6.	AKANSHA SANTOSH KATHALE
7.	MALNAS M ALI SALIM
8.	ALMAS MOBIN SHEIKH
9.	ALTAMASH KHAN MUJAHED KHAN
10.	GONDIL MO ANAS MO ASIF
11.	ANUP UMESH RATHOD
12.	ARATI VINOD JADHAO
13.	ARSHIYA ZAREEN ZAKIR HUSAIN
14.	ASHAMIRA ANAM SHEIKH ANIS
15.	ASHLESHA SHYAM WANKHADE
16.	BAZIL ABSAM ABDUL RAFIK

17.	BHAGYASHRI ARUNRAO GAWANDE
18.	BHAGHYASHREE RAVI CHAVHAN
19.	BHUMI RAMESHWAR DANGE
20.	CHANCHAL SANJAY AWAZADE
21.	CHANCHAL SHEKHAR MALANI
22.	DEVANSH ANIL NILE
23.	DIPTI PANDURANG CHAVHAN
24.	DISHA SANJAY BANDGAR
25.	DNYANESHWARI GAJANAN VILAYATKAR
26.	MUNAWWAR FATEMA A MANNAN
27.	GAURI WAMANRAO JARANDE
28.	GAYATRI VINAYAK JAWAKE
29.	GHANSHYAM SANTOSH JADHAV
30.	HARSH SHALIK RATHOD
31.	JAHID JALIL LANGE
32.	JANHVI ANIL CHAUDHARI
33.	KAZI ZAID SYED NASIRUDDIN
34.	KRISHNA NILESH MUNDE
35.	KRUSHNAI VIJAY RAYKE
36.	KUNDAN PRAVIN RATHOD
37.	MADHURI KISAN CHAVHAN
38.	SHEIKH MAHEWISH KHANSA A HAQUE
39.	MANISHA SUDAM INGOLE
40.	MAYUR VINOD JADHAO
41.	MISBA ANJUM ZAREEF KHAN
42.	MISBA PARVEEN SHEIKH SHAFI
43.	MITALI AJAY SHARMA
44.	MUSKAN PARVEEN AHMAD KHAN
45.	NAFIYA SADAF SK BADRODDIN
46.	NANDINI PRADIP TAYDE

47.	NANDINI SANJAY RATHOD
48.	NANDINI VINOD BHOYAR
49.	NISHANT GANESH JADAHO
50.	OM MANOHAR NIKAM
51.	OM RAJESHWAR GADGE
52.	OM VISHNU PAWAR
53.	PALAK PRAMOD KHODAKE
54.	PUNAM GAJANAN PATIL
55.	PRACHI UMESH GORAKH
56.	PRANJALI SHYAM WAKODE
57.	PRATIK PRAKASH CHAVHAN
58.	PRATIMA SUBHASH RATHOD
59.	PRATISH TANAJI JADHAO
60.	PURVESH SACHIN ALONE
61.	RAKHI PANKAJ BHAGANAGARE
62.	RAM DNYANESHWAR DAHAKE
63.	RAM MANOHAR RATHOD
64.	RAVIRAJ SUDHAKAR INGALE
65.	RESHAM SADASHIV KAMBLE
66.	RITESH KISHOR RATHOD
67.	ROHIT DATTARAM RATHOD
68.	ROHIT VISHNU RATHOD
69.	ROSHANI NARAYAN JADHAV
70.	ROSHANI PURUSHOTTAM BAJARE
71.	RUTIK RAMESH CHAVHAN
72.	RUTIKA KISHOR DHANVE
73.	RUTUJA PRAVIN REWANE
74.	SHEIKH AANAM VAJIR
75.	SYED SAAD SYED SAJID
76.	SAGAR DINESH JADHAO

77.	MOHAMMAD SOHAIL AJGAR
78.	SAKSHI RAJESH SAKHARKAR
79.	SAKSHI UMESH BAWANE
80.	SALONI RAJUSING JADHAV
81.	SANIYA MAHEK MOHD AYYUB
82.	SANJIWANI PRALHAD SHELKE
83.	SAURAV MURLIDHAR SHASTRAKAR
84.	SAVALI GOPAL CHAVHAN
85.	SAYED UZAIR ALI SAYED MUJAHID ALI
86.	SHAHID JAMIL LANGE SK
87.	SHEIKH AFNAN SHAHID ABDUL ATIQUEE
88.	SHEIKH SANA RUSHADA MO ANIS
89.	SHEKHAR GAJANAN CHAVHAN
90.	SHILPA DEVIDAS JADHAO
91.	SHIVAM VIJAY PAWAR
92.	SHIVANI ASHWATHAMA CHAVHAN
93.	SHIVANI SOMRAO RATHOD
94.	SHRUTI CHAKRADHAR BOROKAR
95.	SHRUTI GANESH JADHAO
96.	SHUBHAM VIVEK INGOLE
97.	SHAMALI ANIL RATHOD
98.	SIMRAN RAM RATHOD
99.	SNEHA RAJU GIRI
100.	SNEHAL ANIL RATHOD
101.	SNEHAL KAILAS RATHOD
102.	SOHAM BABARAO GAWANDE
103.	SOHAN BALASAHEB DESHMUKH
104.	SOHEL NAVAB KURESHI
105.	SPRUHA SUBHASH INGOLE
106.	SUMERA SHAHEEN HAJI SAYYAD MUSHRIF

107.	SUSMITA ANIL RATHOD
108.	SUYOG SUNIL GAWANDE
109.	MOHD SAAD TAAJ MOHAMMAD
110.	TAHENIYAT NASIR NAURQANGABADE
111.	TANMAY PRAMOD DURGE
112.	TANUJA DIGAMBAR JARANDE
113.	TEJASWINI TULSHIRAM PAWAR
114.	UZAMA PARVEEN MOHD NASIR NAURANGABADE
115.	VAIBHAV VASANTRAO SHELKAR
116.	VAISHNAVI ANAND SARSAR
117.	VAISHNAVI PRAKASH PUSANDE
118.	VED VIVEK SHENDE
119.	VIVEK KESHAV MASKE
120.	VRUNDA BHARAT SONTAKKE
121.	YASH NANDKUMAR GIRI
122.	YASH VIJAY UDAKHE
123.	ZOYA FIRDOUS SHEIKH ISHAQUE

List of Students B Sc. II Semester III & IV Students who take project on Environmental Studies.

S.NO.	Name of Students
1.	AACHAL NAGESH GITE
2.	ADEEBA AANAM SAYYAD LATIF .
3.	ADITI BALKRUSHNA RAYKE
4.	ADITI RAVIBHUSHAN KADAM
5.	ADITYA RAMESH KALBANDE
6.	AJIT MANOHAR RATHOD
7.	AKANKSHA NARESH KARALE
8.	AKASH SUNIL DALWATE

9.	AKSHITA PRAVIN BHELONDE
10.	AMRUTA KISHOR LOKHANDE
11.	ANAND SUKHADEV DUTHADE
12.	ANJALI CHANDRASHEKHAR DOLAS
13.	CHETAN VILAS ADE
14.	DHANANJAY SHANKAR GUGHANE
15.	DHANSHRI NANDKISHOR DHOLE
16.	DIGVIJAY RAMESHWAR GAWANDE
17.	DURGA MAROTI RAJANE
18.	GAURAV GAJANAN KATEKAR
19.	HARSHADA ANIL KAMBLE
20.	HEEBAIRAM SHAIKHANIS .
21.	JAWERIYA SADAF SAYYED AIJAZ .
22.	JAY BHARAT SARODE
23.	KOMAL ATISH KHARATE
24.	KUNAL NIRANJAN PAWAR
25.	LEENA PRUTHVIRAJ RATHOD
26.	MANSI PRALHAD CHAVHAN
27.	MANSI PRALHAD RATHOD
28.	MISBAH FATEMA MUHAMMAD ISMAIL .
29.	MO NOMAN MO YUSUF MEMON
30.	MO SIBTAIN MO SALIM .
31.	MOHAMMAD MUSADDIQUE MOHAMMAD SALIM .
32.	NAGAMA PARVEEN RAMZAN .
33.	NANDINI SANTOSH THAKARE
34.	NEHA NIRANJAN PAWAR
35.	NIRJALA SAHEBRAO BELE
36.	OM SHAM INGOLE
37.	OM TULSHIRAM THAKARE
38.	PRANJALI ASHOK ADE

39.	PRATHMESH SHRIRAM DUDHE
40.	PRATIKSHA DNYANESHWAR BHALERAO
41.	PRIYANKA MANOJ VITHALKAR
42.	RADHIKA GAJANAN SALUNKE
43.	RAM GHANSHYAM TIWARI
44.	RAWISH JABIR SHEIKH
45.	RESHMA PARVEEN SK.RAMZAN MIRAWALE
46.	RITU SURESH CHAVHAN
47.	ROHIT VASANTA RATHOD
48.	ROSHAN NARAYAN WANKHEDE
49.	RUTANSHU GAJANAN BHAGAT
50.	RUTUJA SANJAY NIMKAR
51.	SAKSHI DINESH MAHIPAL
52.	SAKSHI GANESH GAWANDE
53.	SAKSHI JITENDRA DUDHE
54.	SALEHAFIRDOUS HAIDER KHAN
55.	SAMIKSHA NILKANTH PAWAR
56.	SARITA RAJU KHANDARE
57.	SAYYED ARSHAN SAYYED YUNUS.
58.	SHIFA NAAZ SHAIKH NASIR.
59.	SHREYA GAJANAN RODE
60.	SHREYA SHRIKANT KHOLKUTE
61.	SHRUTI YADAORAO NAPTE
62.	SHYAM RAMESH ADE
63.	SOURABH ARUN RATHOD
64.	SUHANA SADAF SHAIKH SABIR.
65.	SUHANA TABASSUM MUJEEB KHAN.
66.	SUMIT MURLIDHAR SHASTRAKAR
67.	SWARAJ SANJAY RATHOD
68.	SWATI BHIKA CHAVHAN

69.	TEJASWINI ARVIND DONGARE
70.	TEJASWINI SUBHASH PAWAR
71.	TUSHAR GOPAL GAWALE
72.	TUSHAR SUKHADEV RATHOD
73.	VAISHNAVI DIGAMBAR THAKARE
74.	VAISHNAVI RAJESH VYAWHARE
75.	VAISHNAVI SAGAR BHAGAT

List of Students M Sc. II Semester III & IV Students who take project on Environmental Studies.

S.NO.	Name of Students
1.	GAURAV SUDHAKAR PAWAR
2.	MAYURI SUBHASH RATHOD
3.	NEHA UMESH RATHOD
4.	PRITI SHANKAR RATHOD
5.	RASHAMI BHALCHANDRA BHANKHEDE
6.	ROSHANI PREMSING CHAVHAN
7.	SNEHA MANOJ CHORE
8.	SAKSHI GAJANAN WANKHADE
9.	VAISHNAVI GANESHRAO THAKARE
10.	VAISHNAVI YADAORAO NAPTE

DIGRAS
Pin Code-445203
Dist. Yavatmal
(M.S.)

Principal
Bapurajji Butle Arts,Narayanrao Jhat Commerce
& Bapusaheb Patil Science College,Digras

B.B. Arts, N.B. Commerce & B.P. Science College, Digras

Department of Zoology

B.Sc. - I Semester II

2023-2024

Project Assignment

No.	Name of Student	Name of Topic	Date of Issue	Signature	Date of Submission	Signature
1	Ku. Arshiyazareen Zakir Husain	Study on edible fishes from the local region	14-03-24	Arshiya	30-3-24	Arshiya
2	Ku. Resham Sadashiv Kamble			Kamble	30-3-24	Kamble
3	Mr. Saad Sajid Syed					
4	Ku. Manisha Sudam Ingole			Ingole	1'4/24	[redacted]
5	Ku. Misba Shafi Sheikh		11.F 3-24	Misba	30-3-24	[illegible]
6	Ku. Munawwar Mannan Sheikh	Case study on diversity of frogs from surrounding area	14-03-24	Munaw	30-3-24	[illegible]
7	Ku. Punam Gajanan Patil			Patil	30-3-24	Patil
8	Ku. Shivani Ashwathama Chavhan					
9	Ku. Tejaswini Tulshiram Pawar		14-03/24	[illegible]	30-3-24	[illegible]
10	Mr. Nishant Ganesh Jadhao		14/03/24	[illegible]	30-3/24	[illegible]
11	Mr. Ritesh Kishor Rathod	Study on edible fishes from the local region	14/3/24	Rathod	— 11 —	Rathod
12	Ku. Madhuri Kisan Chavhan		— 11 —			
13	Ku. Nafiyasadak B. Sheikh		— 11 —	[illegible]	30/3/24	[illegible]
14	Ku. Sanarushada Anis Sheikh		— 11 —	[illegible]	— 11 —	[illegible]
15	Ku. Saniyamahek Ayyub Mohd			Soniya	— 11 —	Soniya
16	Mr. Ved Vivek Shende	Case study of migratory wetland birds from local reservoir	14/03/24	[illegible]	1/4/24	[illegible]
17	Ku. Akansha Santosh Kathale		14/03/24	[illegible]	30-3-24	[illegible]
18	Ku. Misba Anjum Zareef Khan			[illegible]	1/4/24	[illegible]
19	Ku. Mitali Ajay Sharma			[illegible]	1/4/24	[illegible]
20	Ku. Sneha Raju Giri		14/3/24	S.R.Giri	30-3-24	S.R.Giri
21	Ku. Achal Chandrakant Kamdar	Survey of Migratory Birds in the Grassland				
22	Ku. Gauri Wamanrao Jarande		14-03-24	[illegible]	3-04-24	[illegible]
23	Ku. Roshani Narayan Jadhav		14-03-24	[illegible]	30/3/24	[illegible]
24	Mr. Aditya Gajanan Bhokare		14-03-24	[illegible]	3-4-24	[illegible]
25	Ku. Bhaghyashree Ravi Chavhan		14-3-24	Bhaubari	30/3/24	Bhaubari
26	Ku. Chanchal Shekhar Malani	Prepare the model on evolution of Man				
27	Ku. Muskan Parveen Ahmad Khan		14-03-24	Muskan	30/3/24	Muskan
28	Ku. Rutika Kishor Dhanve			Rutika	30-3-24	Rutika

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Bapurajji Butle Arts,Narayanrao Bhat Commerce & Bapusaheb Patil [illegible] College,Digras

29	Ku. Shruti Chakradhar Borokar					
30	Ku. Vaishnavi Anand Sarsar					
31	Mr. Sohel Navab Kureshi	Case study of migratory wetland birds from local reservoir				
32	Mr. Yash Devidas Bhatarmare					
33	Ku. Sakshi Umesh Bawane					
34	Mr. Anup Umesh Rathod					
35	Mr. Om Manohar Nikam					
36	Ku. Susmita Anil Rathod	Prepare the model on evolution of Man				
37	Mr. Pratish Tanaji Jadhao					
38	Mr. Saad Taaj Mohammad					
39	Ku. Bhagyashri Arunrao Gawande					
40	Ku. Nandini Pradip Tayde					
41	Ku. Sanjivani Prahlad Shelke	Study on edible fishes from the local region				
42	Ku. Janhvi Anil Chaudhari	Study on edible fishes from the local region				
43	Ku. Dipti Pandurang Chavhan					
44	Ku. Tanuja Digambar Jarande					
45	Ku. Nandini Vinod Bhoyar					
46	Ku. Spruha Subhash Ingole	Study on edible fishes from the local region				
47	Mr. Devansh Anil Nile					
48	Mr. Shubham Vivek Ingole					
49	Mr. Jahid Jalil Lange					
50	Mr. Vaibhav Vasanrao Shelkar					
51	Ku. Pratima Subhash Rathod	Survey of Migratory Birds in the forest				
52	Ku. Snehal Kailas Rathod					
53	Ku. Palak Pramod Khodake					
54	Mr. Sohan Balasaheb Deshmukh					
55	Ku. Ashlesha Shyam Wankhade					
56	Ku.Ashlesha sanjay Jddhav	Study on edible fishes from the local region				
57	Mr. Yash Vijay Udakhe					
58	Ku. Saloni Rajusing Jadhav					
59	Ku. Savali Gopal Chavhan					
60	Ku.Rajnandini Datta Ade					
61	Mr. Anas Asif Gondil	Case study of migratory wetland birds from local				
62	Ku. Shruti Ganesh Jadhao					

Bapuraoji Butle Arts,Narayanrao Bhat Commerce & Bapusaheb Patil Science College DIGRAS Pin Code-445203 Dist. Yavatmal (M.S.)

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& Bapusaheb Patil Science College,Digras

63	Ku. Snehal Anil Rathod	reservoir				
64	Ku. Shivani Somrao Rathod					
65	Ku. Almas Mobin Sheikh		Almas	14/03/24	30/03/24	Almas
66	Mr. Rohit Vishnu Rathod	Case study on diversity of frogs from surrounding area				
67	Mr. Uzair Ali Mujahid Ali Sayed		Uzair	14/03/24		
68	Mr. Sohail Ajgar Mohammad		Sohail	14/03/24		
69	Ku. Dnyaneshwari G. Vilayatkar		Dnyaneshwari		30/03/24	Dnyaneshwari
70	Ku. Nandini Sanjay Rathod		Nandini	14/03/24	30/03/24	Nandini
71	Mr. Bazil Absam A. R. Sheikh	Prepare the model on evolution of Man				
72	Ku. Bhumi Rameshwar Dange			Bhumi		
73	Ku. Shamali Anil Rathod					
74	Mr. Ali Salim Malnas		Malnas	14/3/24	1/4/24	Malnas
75	Ku. Pranjali Shyam Wakode			Pranjali	Pranjali	
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Submitted to

DEPARTMENT OF ZOOLOGY

Submitted by

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Class: B.Sc. - I (Semester II)

SEM Topic: Migration of Birds

Session: 2023 – 2024

Guided by –Dr. Narendra Manwar

Migration of birds

Introduction

Every year, after the onset of the winter season in most parts of the Northern Hemisphere, a large number of avian species move towards the south for wintering. After spending the winter season at their respective destinations, they return back to their native ground in the spring season (Alerstam, 1990; Berthold, 2001; Newton, 2003; Somveille *et al.*, 2013). This regular two-way seasonal movement is termed as bird migration and over 2000 species of birds are known to participate in this worldwide phenomenon (BNHS, 2020). These birds are known as migratory birds. It has been observed that migratory birds use certain routes due to some natural barriers such as the Mediterranean Sea, Caribbean Sea, and high-altitude Himalayan peaks, and these movements are known as migratory flyways (Stroud *et al.*, 2006). Most migratory birds are aquatic species, and their wintering destinations are comprised of terrestrial water bodies ranging from small ponds to large-sized lakes and wetlands (Figure 1).

Due to various anthropogenic factors like habitat destruction and degradation, pollution and climate change, illegal and unsustainable hunting, infrastructure development, and disease, most migratory birds are facing a number of threats, and their species diversity and populations are declining in most parts of the world (Biber and Salathé, 1991; Baker *et al.*, 2004; Trouwborst, 2012). Their conservation depends on coordinated efforts on a multi-lateral, international scale. To ensure the sustainability of migratory birds, a large number of conservation measures have been adopted at the inter- governmental level, and multi-lateral treaties/cooperation have been enforced, such as Convention on Migratory Species (https://www.cms.int/en/legali nstrument/ cms), Ramsar Convention (https://www.ramsar.org), Convention for the Protection of Migratory Birds, State of the World's Birds, and Neotropical Migratory Bird Conservation Act (https://www.fws.gov/law/migratory- bird-treaty-act-1918). Flyways provide a framework that can help forge international collaboration and focus

attention on the strategic needs of migratory birds. Bird migration and migratory species were highlighted by Shri Narendra Modi, Honourable Prime Minister of India, in 'Mann Ki Baat' in Feb. 2020, which motivated and encouraged a number of behavioural biologists and conservationists to take up the subject for further studies and exploration. It prompted us to review the subject, especially in the Indian context and consolidate the information in the form of an article. Present review is based on the survey of literature and studies conducted by authors and other scientists of the Zoological Survey of India on migratory birds and their habitats in India.

What is bird migration?

The term 'migration' is derived from the Latin word 'migrara' which means movement from one place to another. In birds, many species have evolved to move from one place to another (two-way seasonal journeys) to gain the benefits of favourable conditions in terms of food and shelter. Due to the scarcity of food and unfavourable seasonal conditions such as low temperatures and snowfall (onset of winter season) at home grounds, birds move to other warmer places (known as wintering ground) for better survival conditions, and after spending a few months, once the conditions become favourable for life (due to seasonal changes and the onset of spring season), they return back to home grounds (Kirby *et al.*, 2008). It is interesting to note that all species of birds do not migrate, but most species are subject to seasonal movements of varying extents. This seasonal movement of birds is known as 'bird migration' and it can be categorised into several types mostly based on the season and distance of migration

Figure 1. Large congregations of migratory birds at Patna Bird Sanctuary, Uttar Pradesh. (Photo Credit: Anil Kumar)

The birds which live in the northern hemisphere are mostly migratory and cover long distances during migration, which is known as 'latitudinal migration'. It refers to the movement from north to south, and vice versa (Kirby *et al.*, 2008). The birds native to the northern temperate and subarctic zones where they breed during summer, move towards the south during winter. Species such as Northern Pintail *Anas acuta*, Eurasian Teal *Anas crecca*, Eurasian Wigeon *Mareca penelope*, Bar-tailed Godwit *Limosa lapponica*, Pallid Harrier *Circus macrourus*, Marsh Sandpiper *Tringa stagnatilis*, Common Greenshank *Tringa nebularia*, Ruddy Turnstone *Arenaria interpres*, Eurasian Whimbrel *Numenius phaeopus*, and Pallas's Gull *Ichthyaetus ichthyaetus*, are known to cover a long distance (Rasmussen and Anderton, 2005). However, some species migrate over short latitudinal distances, such as Himalaya to peninsular India and vice versa (Figure 2).

Some notable examples are Indian Blue Robin *Larvivora brunnea*, Rusty-tailed Flycatcher *Ficedula ruficauda*, and Blue-throated Blue Flycatcher *Cyornis rubeculoides*. Some species moves from the Himalaya to the plains of India, such as Verditer Flycatcher *Eumyias thalassinus*, Blue- capped Rock Thrush *Monticola cinclorhyncha* and Scaly Thrush *Zoothera dauma* (Rasmussen and Anderton, 2005). Some species cover a very short distance, such as Himalayan Black Bulbul *Hypsipetes leucocephalus*, where some individuals move southwards less than 100 km, while larger populations remain in the breeding areas as residents. The same trend can be seen in Blue Whistling

Thrush *Myophonus caeruleus*. When some of the birds travel a short distance for safety and food without any specific direction, it is called vagrant or irregular migration. Herons may be the example of vagrant or irregular migration, including a few more examples such as Black Stork *Ciconia nigra*, Glossy Ibis *Plegadis falcinellus*, Spotted Eagle *Aquila clanga*, and European Bee-eater *Merops apiaster*.

A less frequent opposite movement also occurs in the southern hemisphere. For example, cuckoos breed in India and spend the summer at South-east Africa (Thorup *et al*., 2020). Some tropical birds are known to migrate during the rainy season to the outer tropics to breed and return to the central tropics after breeding. Many marine avian species also make considerable migrations. The Arctic Tern *Sterna paradisaea* breeds in the northern temperate region and migrates to the Antarctic zone along the Atlantic, covering a distance of 22,500 km (Duffy *et al*. 2013; Fijn *et al*. 2013). The Bar-headed Goose *Anser indicus* is one of the world's highest-flying birds (Hawkes *et al*., 2011), and winters in many wetlands of India (Figure 3). Some species of birds are known to possess longitudinal migration, occurring when they migrate from east to west and vice-versa (Figure 4). The Starlings *Sturnus vulgaris*, a resident of East Europe and West Asia has been reported to migrate towards the Atlantic coast. Another notable example is the Hooded Pitta *Pitta sordida*, which is common and widespread in Eastern and Southeast Asia, where it lives in various types of habitats. During the summer months, it migrates to the Himalayan foothills. Some scientists consider the daily movements of birds as 'daily migration'. Based on the time of travel, migratory birds can further be classified as diurnal migrants and nocturnal migrant

...ational strategies for migratory bird ...nation

...or the conservation of migratory birds ...nd their habitats, a number of strategies ...ave been adopted and these are framed, ...etworked and enforced at the ...nternational level by United Nations.

...Convention on Migratory Species: It is a treaty of the United Nations that provides a global platform for the conservation and sustainable use of migratory animals, their habitats, and migration routes. It is also known as 'Convention on the Conservation of Migratory Species of Wild Animals' or 'Bonn Convention'(https://www.cms.int/en/legalinstrument/ cms). It was signed in 1979 in Bonn, West Germany, and became effective in 1983. So far total 133 countries are the parties to this convention. It works with a number of international organizations, NGOs and partners. It is a legal foundation for internationally coordinated conservation measures throughout a migratory range. It is mainly focused on migratory birds as the largest proportion of migratory animals is birds. The convention brings together the countries through which migratory animals pass. The appendices of the convention include mammals, birds, fish, reptiles and one insect. Migratory species threatened with extinction are covered in Appendix I of the convention. The parties of the convention adopt a legal framework to protect these animals through the conservation and restoration of their habitats, mitigating threats to migration and controlling other factors. Migratory species that are likely to be significantly benefited from international cooperation are listed in Appendix II of the Convention. On the basis of information collected from various sources, in India, a total of 128 species are listed in the appendices of the convention. A total of 7 species are covered in appendix-I and 103 species in appendix-II, while 18 species are covered by both appendices.

...World Migratory Bird Day: It is an annual awareness-oriented campaign to publicise the need for the conservation of migratory birds and their habitats. It is a global instrument to support the conservation of migratory birds, to address the threats faced by migratory birds, their ecological importance, and

the need for a joint venture and cooperation at the international level. Every year people around the world actively participate and organize various outreach activities such as bird festivals, awareness events, exhibitions and bird-watching excursions (https://www.worldmigratorybirdday.org).

World Migratory Bird Day was initiated in 2006 by the Secretariat of the Agreement on the Conservation of African- Eurasian Migratory Waterbirds in collaboration with the Secretariat of the Convention on the Migratory Species. The idea to designate a day for migratory birds was initiated in the United States in 1993, when the US Fish and Wildlife Service, the Smithsonian Migratory Bird Center and the Cornell Laboratory of Ornithology celebrated 'International Migratory Bird Day'. Later on, this event was adopted in the African-Eurasian region, and it was decided to expand the scope into an honouring day that celebrates all migrating birds at the international level. In 2018, the joint campaign adopts the single name of 'World Migratory Bird Day' and major events to celebrate the day will be organized twice a year, on the second Saturday in May and in October.

Management and protection of wetland habitats is a prerequisite to the conservation of migratory birds. Wetlands are among the most diverse and productive ecosystems, known to provide a wide range of ecosystem services. However, they continue to be degraded and converted extensively for other uses. The 'Convention on Wetlands' is one of the oldest intergovernmental environmental agreements. The treaty was negotiated through the 1960s by countries and non - governmental organizations and was adopted in the Iranian city of Ramsar in 1971 and came into force in 1975 (https://www.ramsar.org). The major mission of the convention is the 'wise use' of wetlands. It defines the wise use of wetlands as 'the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development'. Wetlands are indispensable for the wide range of benefits that they provide such as freshwater supply, food and building materials, biodiversity, flood control, groundwater recharge, and climate change mitigation. To achieve the targets of the convention, it was decided that each party (to the convention) must designate at least one wetland site within their territory for inclusion in the List of Wetlands of International Importance (known

Conclusion

Studies showed that India is one of the most important destinations for migratory birds in South Asia, owing to the occurrence of wide array of wetlands ranging from coastal wetlands to inland lakes and dames. Strategic locations of some major wetlands such as Pong Dam, Asan Barrage, Harike Barrage and marshy depressions/ waterlogged areas in Gangetic plains are not only host a large number of migratory birds but also act as a stop- over for passage migrants going further southwards. A number of treaties have been enforced by United Nations for the conservation of water birds and India is a major contributor, is working for the conservation of migratory birds and their habitats in India mediated through the country-wide implementation of a number of programmes under the umbrella of Ministry of Environment Forest and Climate Change.

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ASSIGNMENT / PROJECT ASSIGNMENT / PRACTICAL ASSIGNMENT / SEMINAR

Session - 2023 -2024

Class: Bsc 1st Semester 2nd

Subject: Zoology

Topic: Survey of migratory birds in Grassland.

-: Submitted By :-

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Study of Migratory birds in grassland

Principal

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& Bapusaheb Patil Science College,Digras

Date
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Grassland and birds Survey protocols

Introduction :-

The Survey protocol provides instruction on Conducting data for the occupancy (presence / not detected) of Grassland bird species in a given Survey area during the breeding season. It also provides information on using behavioural observation to solisty evidence of breeding behaviour so can be aplied. many birds in Saskatchewan are protected by the federal Species at Risk Act, The Migratory Birds Conversion Act and or The Wildlife Act, 1998. The wild species at Risk Regulations Refer to the Government of Canada - Avoiding harm to migratory birds Search migratory Birds policy Grassland breeding birds are a large & diverse geoup that includes any birds that live or breeds in the grassland of Saskatchewan. However, certain species require methods that are not covered by this Survey protocol.

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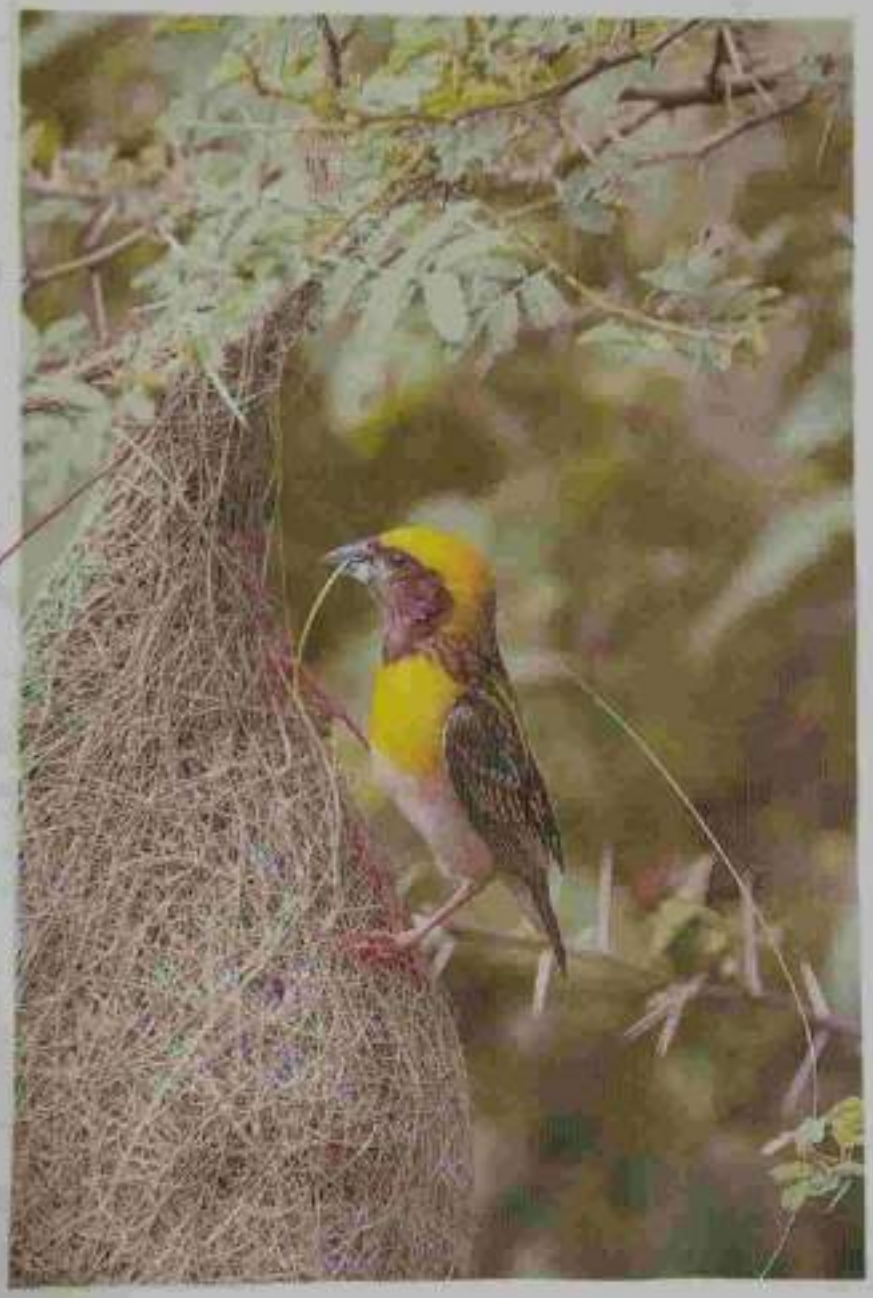
Status and Distribution :-

Historic losses of more grassland habitat likely produced staggered losses of grassland birds. Since monitoring began in 1970 grassland birds have decreased more than any other group with the exception of aerial insectivores. on average, the decline is about 40 per cent / NABBCI 20b)
Habitat loss is continuing and other threats, including pesticides, are affecting grassland birds (NABBCI) 20k the very widely distribution.

Biology :-

grassland are see in influx of avian migrants each Spring come to take Maharashtra is the home to migrating birds travelling via the CAF with both Natural & man-made wetlands, it Serves as stagging places & wintering grounds. Fly way are utilised by birds to teach breeding, stopover and wintering grounds during three annual cycle.



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Birding Maharashtra

Maharashtra (abbreviation MH) is a state in the Western region of India & it is India's second most populous state & third-largest state by area. Spread over 307,713 km² (118,809 square miles). It is bordered by the Arabian Sea to the west and the Indian States of Karnataka, Telangana, Goa, Gujrat, Chattisgarh, Madhya-pradesh, and the union territory of Dadra & Nagar Haveli. It is also the World's second most populous subnational entity. It has over 112 million inhabitants. Capital: Mumbai, has a population of approximately 18 million. Nagpur of Maharashtra's second capital as well as its winter capital. It is one of the most industrialised States of Indian union. The east-west length about 800 km (72°6 to 80°9 E) and North to South length about 700 km.

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Maharashtra can be divided 5 areas Coastal maharashtra is a narrow coastal belt Covering about 720 km form north to South and about 50 km wide. The strip of Sandwitched between the Arabian Sea in the West & the Sahyadri or Western ghats range to the east. The area recieves up to 3,000 mm of rainfall annually. Its Six districts are Thane, mumbai Suburb, Raigad and Sindhudurg. Desh is the rain-shadow belt adjoining the eastern slopes of the western ghats It is the Western uplands of maharashtra with an average heigh of 500 km to 600 m above Sea level.

Interspaced with river valleys up to The ghat country gets up to the 6,000 mm of yearly rainfall Marathwada is the hot and dry region of central maharashtra and is made up of 8 districts of Aurangabad. Jalna, beed, Osmanabad, latur Nanded, parbhani, Hingoli. The Average rainfall upto Vidharbha is the easternmost division of comparing,

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The Avifauna of Maharashtra the State has very rich avifauna with more than 500 species recorded from the state so far. If the subspecies are taken into account then the list is more than 540. Prakash gole Classified them as International migrant - 245, Stragglers or irregular visitors 40; species known to be breeding 168; Species that breed in Specific areas only 56; Species about which very little is known 81; Species which about knowledge is fairly good (eg. Sparrows, crows) 25 Most of the migrants & stragglers are marine species that are storm driven to the Coast during the monsoon months. Most of the migrants are winter visitors aquatic birds like ducks, geese, gulls, terns, cranes flamingos, sandipipers etc. A no. of harriers, cukoos, shrikes, warblers, Chats, pipits, and wagtails also arrive here in the cold season. few species like Asian quail, pied Crested, cukoo and Indian pitta

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Visit us at the begining of rainy season Most of our bulbuls, babblers, sumbirds, hornbills and owls are resident birds Some birds are rare in the State being Sighted only a few times (Ashy minivet) Imperial Eagle, Scaup Duck, pelican sp etc) These are birds that were thought to be extinct Such as forest Spotted Owlet Athene blewitti. Jerdons Courser, Cursorius bitorquatus & pinkheaded duck Rhodonessa Caryophyllacea, Jerdons Courser was rediscovered in the adioining Andhra pradesh (1986) In forest Spotted Owlet was rediscovered in the Melghat forest (1999).

The Commonest bird in the state is the Ubiquitous Jungle Crow Corvus macrohynchos which is found in remotest forest patches in Gadchiroli distrct to the heart of the mumbai city. other commone and abundant birds are the House Crow, House Sparrow, Blue rock pigeon Common Myna common black peafowl

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peafowl para cristatus is a more fortunate bird because of the protection it has recieved in Someplaces, thanks to Religious Sentiments.

Birding Areas the main birding Habitats in the state Can be broadly classified into forest, Scrub & grass country, Fresh water bodies seashore cultivated Counteies and Urban areas About 22% of the total State area is under forest through true forest Cover is hardly half of this area. Tropical Dediduous forest is the dominant vegetation type in the state it is found in the western ghats supposed Evergreen and SemiEvergreeen type Eg. Bhimashankar, matheran, mahabaleshwar, chandoli etc. Thropical thorn forest is the dominant type throughout the plateau area Great Indian Bustard Sanctuary is located within this belt.

Home of the popular birding Spots for Unique birds Cultivated Countey has its own Unique bird fauna which is mostly granivores and Insectivores. In Spite of being most Urbanized State ies in maharashtra Supports gh bird diversity.

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5.	Ku. Akansha Naresh Karale	ANKaale 30-03-24
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7.	Ku. Amruta Kishor Lokhande	2-04-24
8.	Ku. Anjali Chandrashekhar Dolas	Adolas 30-3-2024
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20.	Ku. Neha Niranjan Pawar	28/03/24
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29.	Ku. Rutuja Sanjay Nimkar	
30.	Ku. Sakshi Dinesh Mahipal	
31.	Ku. Sakshi Ganesh Gawande	
32.	Ku. Sakshi Jitendra Dudhe	
33.	Ku. Salehafirdous Haider Khan	28-3-24
34.	Ku. Sanjivani Subhash Pawar	30/03/24
35.	Ku. Sarita Raju Khandare	
36.	Ku. Shifanaaz Nasir Shaikh	
37.	Ku. Shreya Gajanan Rode	30/03/24
38.	Ku. Shreya Shrikant Kholkute	28.3.24
39.	Ku. Shruti Yadaorao Napte	30/3/24
40.	Ku. Suhana Sabir Shaikh	30/03/24
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44.	Ku. Tejaswini Subhash Pawar	30.3.24
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49.	Mr. Ajit Manohar Rathod	
50.	Mr. Akash Sunil Dalwate	
51.	Mr. Anand Sukhadev Duthade	30.3.24
52.	Mr. Arshan Yunus Sayyed	30.3.24
53.	Mr. Chetan Vilas Ade	28-3-24
54.	Mr. Dhananjay Shankar Gughane	
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57.	Mr. Jay Bharat Sarode	
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59.	Mr. Musaddique Salim Mamdawale	
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61.	Mr. Om Sham Ingole	
62.	Mr. Om Tulshiram Thakare	
63.	Mr. Prathamesh Shriram Dudhe	
64.	Mr. Ram Ghanshyam Tiwari	
65.	Mr. Rohit Vasanta Rathod	
66.	Mr. Roshan Narayan Wankhede	
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69.	Mr. Sibtain Salim Mohammad	
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72.	Mr. Swaraj Sanjay Rathod	
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STUDY ON EDIBLE FISHES FROM THE LOCAL REGION

BAPURAOJI BUTLE ARTS, NARAYANRAO BHAT COMMERCE AND BAPUSAHEB PATIL SCIENCE COLLEGE DIGRAS DIST. YAVATMAL

PROJECT ASSIGNMENT

Submitted to

DEPARTMENT OF ZOOLOGY

Submitted by

Name students:

1. Mr. Shubham Vivek Ingole.
2. Mr. Vaibhav Vasantrao Shelkar.
3. Mr. Zahid Jalil Lange.
4. Mr. Devansh Anil Nile.
5. Ku. Spruha Subhash Ingole.

Class: B.Sc. – I (Sem- II)

SEM Topic: STUDY ON EDIBLE FISHES FROM THE LOCAL REGION

SESSION : 2023 – 2024

Teacher In-charge

Dr. Narendra Manwar

Head, Department Of zoology

Dr. Nita Labhsetwar

STUDY ON EDIBLE FISHES FROM THE LOCAL REGION

➢ INTRODUCTION

The Yavatmal district, nestled in the heart of Maharashtra, India, boasts a rich tapestry of aquatic ecosystems, including rivers, lakes, and reservoirs, which harbor diverse species of fish. These aquatic resources not only sustain local livelihoods but also play a pivotal role in providing a significant protein source and contributing to the culinary heritage of the region.

The study on edible fishes from the Yavatmal region endeavors to explore and document the wealth of piscine diversity present in its water bodies. This endeavor is driven by the recognition of the crucial nexus between food security, nutrition, culture, and environmental sustainability, all of which are deeply intertwined with the utilization and management of local fisheries resources.

1. Fishes form one of the most important group of vertebrates for man.
2. Fishes have formed an important item of human diet from the man
3. Appeared on earth.
4. Fishes form a rich source of food and provide a means to tide over the nutritional difficulties of man.

Fresh water edible fishes.

- The fish should be tasteful.
- It should be having high nutritive value.
- Species that can be culture together without competing with each other.
- It is able to highly preferable for maximum utilization of water.

➢ HABIT AND HABITAT

- Rohu (Labeo rohita):

Habit: Rohu is a bottom-dwelling fish species that typically feeds on detritus, algae, and small invertebrates. It is known for its omnivorous diet, consuming both plant and animal matter.

Habitat: Rohu prefers freshwater habitats such as rivers, lakes, and reservoirs with moderate to fast-flowing water. It thrives in habitats with

abundant vegetation and submerged structures where it can find shelter and food.

- Catla (Catla catla):

Habit: Catla is a surface-feeding fish species known for its herbivorous diet, primarily feeding on phytoplankton and aquatic plants. It often congregates in large shoals near the water's surface.

Habitat: Catla prefers large freshwater habitats with ample vegetation and phytoplankton. It is commonly found in rivers, lakes, and reservoirs with relatively clear and oxygen-rich water.

- Murrel (Channa species):

Habit: Murrel, also known as snakehead fish, are carnivorous predators with a diverse diet, including fish, crustaceans, and insects. They are known for their aggressive hunting behavior and ability to breathe air.

Habitat: Murrel species inhabit various freshwater habitats, including rivers, streams, ponds, and marshes. They are often found near submerged vegetation, root systems, and other structures where they can ambush prey.

- Tilapia (Oreochromis species):

Habit: Tilapia is a versatile fish species with an omnivorous diet, feeding on algae, detritus, and small invertebrates. It exhibits territorial behavior and can adapt to a wide range of environmental conditions.

Habitat: Tilapia species inhabit diverse freshwater habitats, including rivers, lakes, ponds, and reservoirs. They are often found in warm, shallow waters with abundant vegetation and organic matter.

- Mahseer (Tor species):

Habit: Mahseer is a prized sport fish known for its powerful swimming abilities and voracious appetite. It is primarily a piscivorous species, feeding on smaller fish, insects, and crustaceans.

Habitat: Mahseer species inhabit fast-flowing rivers and streams with rocky substrates and clear water. They prefer habitats with riffles, rapids, and deep pools where they can find prey and shelter.

STUDY ON EDIBLE FISHES FROM THE LOCAL REGION

➢ EXTERNAL FEATURE

- Body Shape and Size:

Fish exhibit a wide range of body shapes, including fusiform (torpedo-shaped), elongated, compressed, or laterally flattened.

Size varies greatly among fish species, ranging from a few centimeters to several meters in length, depending on the species.

- Fins:

Fins are prominent external features that aid in locomotion, stability, and maneuverability.

Common types of fins include dorsal fins (on the back), anal fins (near the anus), pectoral fins (on the sides), pelvic fins (near the abdomen), and caudal fins (tail fins).

- Scales:

Most fish species are covered in scales, which provide protection and reduce friction while swimming.

Scales vary in size, shape, and arrangement depending on the species. They may be cycloid, ctenoid, ganoid, or placoid in structure.

- Coloration and Patterns:

Fish exhibit a wide array of colors and patterns, which often serve adaptive functions such as camouflage, warning signals, or species recognition.

Coloration may vary based on habitat, age, sex, breeding status, and environmental factors.

- Mouth and Teeth:

The shape and position of the mouth vary among fish species and are often adapted to their feeding habits and diet.

Some species have specialized teeth for grasping, tearing, crushing, or grinding food items.

- Eyes:

STUDY ON EDIBLE FISHES FROM THE LOCAL REGION

Fish have well-developed eyes adapted for underwater vision, which may vary in size and shape among species.

Eye position and structure may indicate the fish's feeding behavior, habitat preferences, and activity patterns.

- Gills:

Gills are respiratory organs responsible for extracting oxygen from water and eliminating carbon dioxide.

They are located on the sides of the fish's head and are protected by a bony or cartilaginous gill cover (operculum).

- Fins and Fin Rays:

Each fin typically consists of fin rays supported by bony or cartilaginous structures.

The number of fin rays and their arrangement can be diagnostic for species identification.

➢ REPRODUCTION

Sexual Dimorphism:

Many fish species exhibit sexual dimorphism, with males and females differing in external appearance, size, or coloration.

In some species, males may develop specialized reproductive structures such as enlarged fins or bright colors during the breeding season to attract mates.

Reproductive Behaviors:

Fish display a wide range of reproductive behaviors, including courtship rituals, territorial displays, and nest building.

Courtship behaviors may involve elaborate displays, movements, or vocalizations to attract mates and establish breeding territories.

Breeding Seasons:

STUDY ON EDIBLE FISHES FROM THE LOCAL REGION

Fish species typically have specific breeding seasons dictated by environmental cues such as water temperature, photoperiod (day length), and food availability.

Breeding seasons may vary among species and are often synchronized with favorable conditions for larval survival and growth.

Spawning:

Spawning is the process of releasing eggs (by females) and milt or sperm (by males) into the water for external fertilization.

Fish species exhibit various spawning strategies including broadcast spawning (release of gametes into the water), nest spawning (deposition of eggs in nests or substrate), and mouthbrooding (incubation of eggs in the mouth).

Egg Development:

Fertilized eggs undergo development, progressing through stages such as cleavage, gastrulation, and organogenesis.

Egg development is influenced by water temperature, oxygen levels, and predation pressure, with optimal conditions varying among species.

Larval Development:

After hatching, fish larvae undergo a period of development during which they may exhibit distinct larval characteristics and behaviors.

Larval development is critical for survival and dispersal, with larvae often exhibiting adaptations for feeding, swimming, and avoiding predators.

Catla catla

The species has the fastest rate of growth among the Indian major carps.

►In good nursery ponds, hatchlings of catla stocked at the rate of 10,00000 to 12,50000 per hectare, grow to a length of 20-25 mm in 15 days.

►Catla attains maturity when about 2 years old.

►In 5 kg female, a total number of 40,00000 ova were found which gives the fecundity to be 80 eggs/g body weights.

Nutretive value of catla catla

S.N.	NUTRITIONAL COMPONENT'S	VALUE for 100 gm FISH
1.	Energy (cals)	111
2.	Moisture (gm)	74
3.	Protein (gm)	19
4.	Fat (gm)	02
5.	Mineral (gm)	01
6.	Fibre (gm)	-
7.	Carbohydrates (gm)	03
8.	Calcium (mg)	530
9.	Phosphorous (mg)	235
10.	Iron (mg)	01

Labio rohita

►Rohu also grows very fast but is relatively little slower than Catla. They become mature in 1 year.

►The hatchings of Rohu when stocked at the rate of 10,00000 to 12,50000/ha grow to a length of 25-30 mm in 15 days, and the survival rate is 50%.

►In Rohu the average ret of egg is 1258/gbw.

►The weight of Rohu is (33-45cms) 900 g in one year, 2-3 kg in second year and 5-6 kg in third year.

Nutritive Value of Labeo rohita

ROHU - Nutritive Value Of Common Foods	Value Per 100 grm. Foods
Energy (Kcals)	97
Moisture(gm)	77
Protein(gm)	17
Fat(gm)	1
Mineral(gm)	1
Fibre(gm)	-
Carbohydrates(gm)	4
Calcium(mg)	650
Phosphorous(mg)	175
Iron(mg)	

Cirrhinus mrigala

► This species is widely cultured in India along with other carps.

It grows fast and fry when stocked at 10 lack to 12.5 lack/ha grow to 25-30 mm in length in 15 days.

► Both the sexes mature when they are two years old.

► For induced breeding, they are mature in one year.

Wallago attu

▶Wallago attu is a species of catfish in the family Siluridae.

It is locally known as Padhin and commonly called Wallago.

It can reach maximum 2.4 m (8 feet) total length.

▶This south Asian fish is found from India, Bangladesh,

Pakistan, Vietnam, Indonesia etc.

It is not good for culture because they consuming more time.

It is mature in minimum 2 years for breeding.

Taxonomical Classification	
Kingdom	: Animalia
Phylum	: Chordata
Subphylum	: Vertebrata
Class	: Actinopterygii
Order	: Siluriformes
Family	: Siluridae
Genus	: *Wallago*
Species	: *attu*
Binomial Name	: *Wallago attu* (Bloch and Schneider, 1801)

List of fresh water fishes of Maharashtra

Family 1: notopteridae

1) Notopterus notopterus

2) Notopterus chitala

Order 2: Anguilliformes

Family 2: anguillidae (freshwater eels)

3 Anguilla bengalensis bengalensis

Order 3: Cypriniformes (Carps and minnows)

Family 3: cyprinidae

SUB - FAMILY: CYPRININAE (Barbs)

4 Catla catla

5 Cirrhinus cirrhosus

6. Cirrhinus fulungee

7. Cirrhinus macrops

8. Cirrhinus mrigala mrigala

9. Cirrhinus reba

10. Ctenopharyngodon idellus

11. Cyprinus carpio

12. Gonoproktopterus kolus

13. Gonoproktopterus lithopidos

14. Gonoproktopterus thomassi

15. Labeo ariza

16. Labeo bata

17. Labeo boga
18. Labeo boggut
19. Labeo calbasu
20. Labeo fimbriatus
21. Labeo gonius
22. Labeo kawrus
23. Labeo pangusia
24. Labeo porcellus
25. Labeo potail
26. Labeo rohita
27. Labeo sindensis
28. Neolissochilus wynaadensis
29. Oreichthys cosuatis
30. Osteobrama cotio cunma
31. Osteobrama cotio peninsularis
32. Osteobrama dayi
33. Osteobrama neilli
34. Osteobrama vigorsii
35. Osteochilus (Osteochilichthys) godavariensis
36. Osteochilus (Osteochilichthys) nashii
37. Osteochilus (Osteochilichthys) thomassi
38. Puntius amphibius
39. Puntius chola
40. Puntius carnaticus

41. Puntius deccanensis
42. Puntius dorsalis
43. Puntius fraseri
44. Puntius jerdoni
45. Puntius sahyadriensis
46. Puntius sarana sarana
47. Puntius sarana subnasutus
48. Puntius sophore
49. Puntius ticto
50. Rohtee ogilbii
51. Schismatorhynchos (Nukta) nukta
52. Thynnichthys sandkhol
53. Tor khudree
54. Tor mussulah
55. Tor tor

SUB-FAMILY: CULTRINAE

56. Chela cachius
57. Chela laubuca
58. Salmostoma acinaces
59. Salmostoma balookee
60. Salmostoma boopis
61. Salmostoma clupeoides
62. Salmostoma horai

STUDY ON EDIBLE FISHES FROM THE LOCAL REGION

Table1: Seasonal representation of upstream fishes in Arunavati dam.

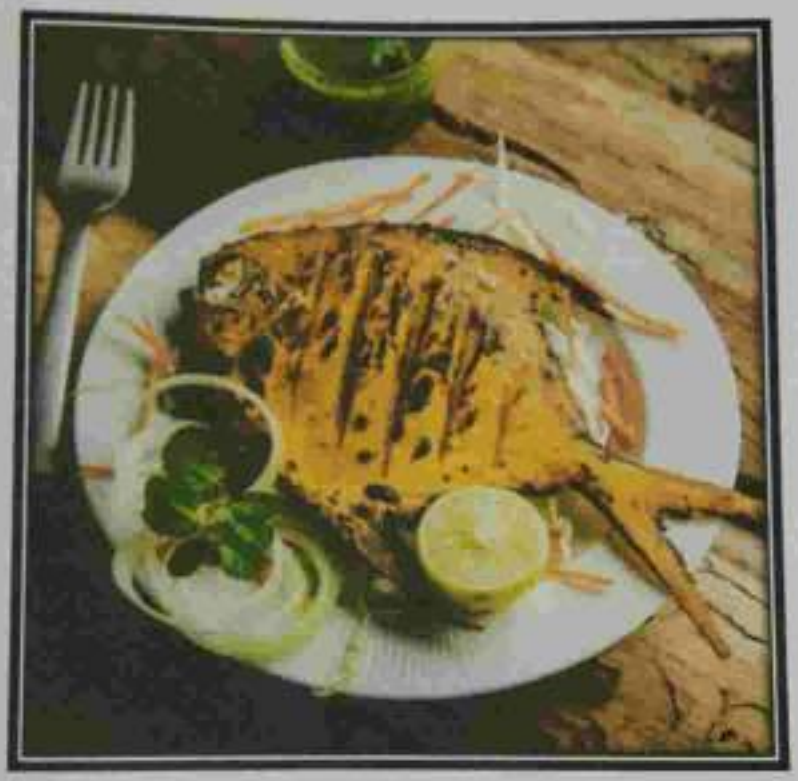
Sr. No.	Species Name	Rainy season	Summer season
1	*Channa sp.*	+	–
2	*Cirrhinus mrigala*	+	–
3	*Cyprinus carpio*	+	–
4	*Etrophus surotensis*	+	–
5	*Fistularia sp.*	+	–
6	*Hypophthal sp.*	+	–
7	*Labeorohita sp.*	+	–
8	*L. bata*	+	–
9	*L. pangusta*	+	–
10	*L. fimbriatus*	+	–
11	*L. kontitus*	+	–
12	*L. boggnt*	+	–
13	*Notoptenus chitala*	+	–
14	*Anguill bengalensis*	–	+
14	*Mastocembulus armata*	–	+

+ Sign indicate the availability status of fishes

Sr. No.	Species Name	Rainy season	Summer season
1	*Catla catla*	+	–
2	*Mystus seenghala*	+	–
3	*Notopterus notopterus*	+	–
4	*Pangasius pangasius*	+	–
5	*Tilapia mossombica*	+	–
6	*Wallago attu*	+	–
7	*Amphipnous cuchia*	–	+
8	*Clarias batrachus*		
9	*Tinca tinca*		

Sr. No	Characteristics	Values
1.	Dissolved oxygen	10.2 mg/lit
2.	pH	8.2 ± 0.2 s.u.
3.	Temperature	25± 20C
4.	Alkalinity	85 ppm
5.	Total Hardness	64.8 ppm
6.	ParmenantHardness	43.2 ppm
7.	Temporary Hardness	21.6 ppm
8	Salinity	0.01 ppm

STUDY ON EDIBLE FISHES FROM THE LOCAL REGION



FISH DISH

BAPURAOJI BUTLE ARTS, NARAYANRAO BHAT COMMERCE AND
BAPUSAHEB PATIL SCIENCE COLLEGE
DIGRAS DIST YAVATMAL

Skill Enhancement Module Activity (SEM) Report

Submitted to

DEPARTMENT OF ZOOLOGY

Submitted By

Name of Students:1. Munawwar Fatema Abdul Mannan
2.Tejaswini Tulshiram Pawar
3.Nishant Ganesh Jadhao

Class: B. Sc. – I (Sem. II)

SEM Topic : Diversity of Frog From Local Area

Session: 2023-2024

Teacher In-charge
Dr.N.A.Manwar
Dr.Ku.S.K Parate

Head,
Department of Zoology
Dr.Ku.N.S.Labhsetwar

Indroduction :-

There are over 5,000 species of known frogs, and scientists continue to discover new species. Frog species come in a variety of sizes and colors. They can be found in a variety of habitats on every continent except Antarctica. Frogs are amphibians, which are cold-blooded vertebrates, meaning they have backbones, that don't have scales. Amphibians live both on land and in water. Other amphibians include salamander, newt, and

General Classification

Frog: any member of a diverse group of short-bodied, tailless amphibians.

Kingdom: | Animalia
Phylum: | Chordata
Class: | Amphibia
Order: | Anura

There are over 5,000 species of known frogs, and scientists continue to discover new species. Frog species come in a variety of sizes and colors. They can be found in a variety of habitats on every continent except Antarctica. Frogs are amphibians, which are cold-blooded vertebrates, meaning they have backbones, that don't have scales. Amphibians live both on land and in water. Other amphibians include salamander, newt, and caecilian.

What's the difference between frogs and toads? There isn't a difference, the word "frog" includes both frogs and toads. While toads are frogs, toads tend to reference a frog that has particularly dry and warty skin. Toads also tend to have shorter legs and are more heavy-set. Frogs are more likely to live in or near water than toads.

Size and Weight:

Frogs vary widely in size and weight depending on species. For example, the West African goliath frog can grow to 15 inches and weigh as much as 7

pounds. Meanwhile, the Cuban tree frog grows to only half an inch and weighs approximately 2 ounces.

Appearance:
Frogs and toads have almost non-existent necks. However, most species have large, protruding eyes so they can see in most directions without needing to turn their head. Most species are also great at hopping in any direction. They have powerful muscles in their back legs, allowing them to hop great distances. Some frogs can jump over 20 times their own body length, which is similar to a human jumping 30 meters. In comparison, Olympian Mike Powell holds the long jump record of 8.95 meters.

Diet:

Most species eat insects, spiders, worms, and slugs. However, some of the larger species are able to eat larger prey like mice, birds, and small reptiles. Their skin absorbs water so they don't need to drink water. Frogs help keep a large part of the world's insect population under control.

Habitat

Frogs thrive in a large number of environments from tropical forests to frozen tundras to deserts. Their skin requires freshwater, so most frogs live in aquatic and swampy habitats. There are a number of exceptions, including the waxy tree frog, which can be found in the arid region of Gran Chaco of South America. Waxy tree frogs produce a waxy substance that they rub all over their skin to prevent evaporation.

Geography:

Frogs can be found on every continent except Antarctica

Review Of Literature International Study of Spiders

SR NO	Name of Observer	Species	Year	International
1	Frost Darrel R	Duttaphrynus Melanostictus	1998	✔
2	Cannatella David C	Polypedates Maculatus	1997	✔
3	Badger D Netherto J	Euphlyctis Cyanophylatis	1995	✔
4	Kuzmin Sergius L	Polypedates Leucomistax	1999	✔

Material &Methods

Sampling method

- Transect method of sampling is done for finding the different species of Frog .
- Transect sampling is a distance sampling method for estimating the abundance of wild animal population.

Photography

- Device used to take photographs of Frog - mobile phone (realme X2 and other)

Identification

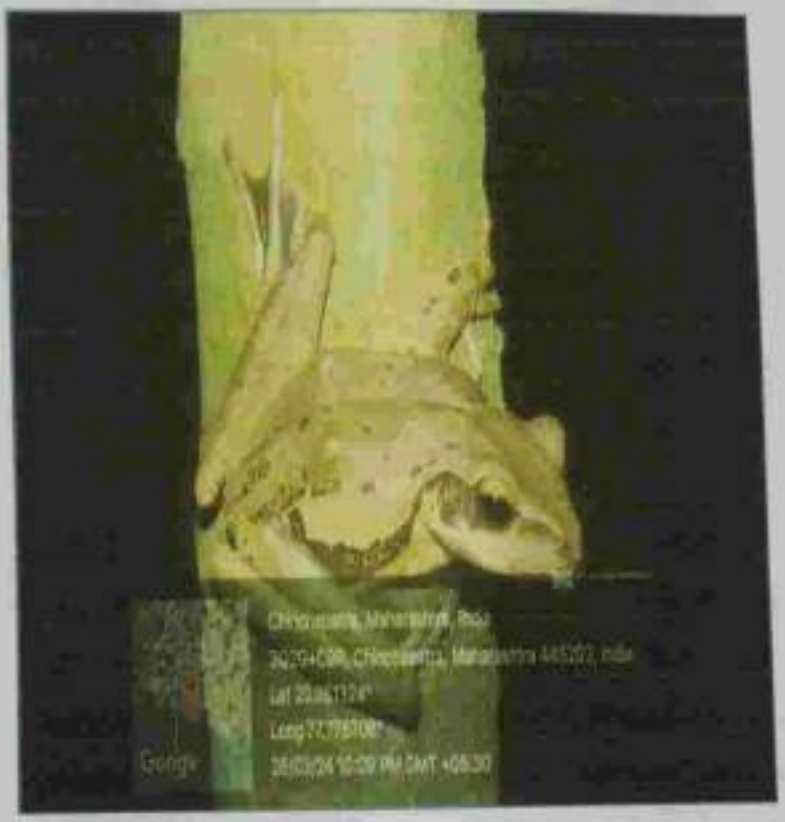
- By uploading photographs of Frog on Google and then identifying the species.

Method

- There are two methods of sampling, one is quadrant method and another is transect method.
- Transect method is used for finding different species of spider web

Photography

EUPHLYCTIS , CYANOPHYLCTIS



COMMON TREE FROG

DUTTAPHRYNUS MELANOSTICTUS

POLYPEDATES LEUCOMYSTAX

POLYPEDATES MACULATS

Morphology

Duttaphrynus melanostictus is commonly called Asian common toad, Asian black-spined toad, Asian toad, black-spectacled toad, common Sunda toad, and Javanese toad. It is probably a complex of more than one true toad species that is widely distributed in South and Southeast Asia.[1]

Duttaphrynus melanostictus

Conservation status

Euphlyctis cyanophlyctis is a common dicroglossid frog found in South Asia.[1] It is known under numerous common names, including Indian skipper frog or skittering frog.[2] They are often seen at the edge of bodies of water with their eyes above the water. They noisily move away from the shore when disturbed, giving them their common name. They are rarely seen outside water.

Polypedates leucomystax is a species in the shrub frog family Rhacophoridae. It is known under numerous common names, including common tree frog, four-lined tree frog, golden tree frog[2] or striped tree frog. Many past authors have united it with the common Indian tree frog in P. maculatus (or Rhacophorus maculatus, as was common in older times), but today they are generally considered distinct species. In its native range, it is also called "white-lipped tree frog", but this name is otherwise applied to a species of true tree frogs (family Hylidae).

Polypedates maculatus, the Indian tree frog,[1] or Chunam tree frog, is a common species of tree frog found in South Asia. It was described by John Edward Gray in 1830.[2]

Polypedates maculatus

Observation &Results

Common name	Scientific name	Numbers of species	Common	Rare
Asian commontoad	Duttaphyrnus	2		✔
The Indian Frog	Polytedates	2		✔
Indian Skipper Frog	Euphlyctis	2		✔
Common tree Frog	Polytedutes Lucomystax	4	✔	

Conclusion and Discussion

Four different species of Frog are collected from different areas. These Four species of Frog are,

- Asian commontoad Duttaphyrnus
- The Indian Frog Polytedates
- Indian Skipper Frog Euphlyctis
- Common tree Frog Polytedutes Lucomystax

They live in a different variety of habitat most of species are found in house and some of them are found from forest and farms. some species of

Acknowledgement :-

Thanking to the principal and subject teacher of zoology Narendra Manwar sir for giving such an interesting and amazing project to us and for giving their valuable guidance.

Reference :-

- Frost Darrel R — Duttaphrynus Melanostictus — 1998
- Cannatella David C — Polypedates Maculatus — 1997
- Badger D Netherto J — Euphlyctis Cyanophylatis — 1995
- Kuzmin Sergius L — Polypedates Leucomistax — 1999

Digras Vibhagiya Shikshan Prasarak Mandal's

Bapuraoji Butle Arts, Narayanrao Bhat Commerce & Bapusaheb Patil Science College, Digras Dist.Yavatmal

Affiliated to

Sant Gadge Baba Amravati University, Amravati

Department of Zoology

ASSIGNMENT / PROJECT ASSIGNMENT / PRACTICAL ASSIGNMENT / SEMINAR

Session - 2023 -2024

Class: B.Sc II Semester IV

Subject: Zoology

Topic: Study tour Report
Sohal Wildlife Sanctuary "Karanja"

-: Submitted By :-

Name: Ku. Vaishnavi Rajesh Vyawahare.

Roll No. :

Date: 30 - 03 - 2024

:: Guided by :-

1) Prof. Dr. N.A. Manware

2) Prof.

Principal
Bapuraoji Butle Arts,Narayanrao Bhat Commerce
& Bapusaheb Patil Science College,Digras

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Page No.

Sohol Wildlife Sanctuary "Karanja"

As a part of B.Sc II, Semester - IV Study tour has been Oreganized to "Sohol wildlife Sanctuary" Maintained and managed by forest Department Gouerment of Maharashtra.

All students gathered in campus at 8.00 am. Principal sir addressed students before the beginig of study toue at collage and after that we all students of 2nd year and our teaching staff had started our Toueney towards a Sanctuary at 9:00 am. The Study toue was organized by Department of Zoology and botany so we after travelling a journey of 15 min arrived to fishery project and study toue was started and we move away to wildlife Sanctuary.

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A wildlife sanctuary is an area where animals, habitats and their surroundings are protected from any short of disturbance. The capturing, killing and poaching of animals is strictly prohibited in these region. The main objective of establishing a wildlife sanctuary is to educate human as to known them and make them learn how to treat the animals. The animals are taken care of and allow to live peacefully in their natural habitat.

The study tour was under the guidance of prof. Dr. Narendra Manwar Sir. It was a memorable experiance for all of us. As we entered the sanctuary the beautiful greenery of the place made us speechless and memorized. The big trees, the dense foliage different invertebrates and vertebrates the silence of that place, the real beauty of Nature thrilled us.

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We all visited a part of Sohol-wildlife sanctuary water reservior through tracking downwards from the sanctuary resting spot. They provide their boat too but only in oct to june months. Then we back by the gate of sohol - wildlife sanctuary clicked a lot of photos with classmates, friends in group with teachers staffs.

Many sanctuarys are involved in ecotourism. They offer accomodation, tour guides, nature walks etc. and sohol wildlife sanctuary comes under ecotourism. Birds are environmental indicators and slight change in environmental conditions can impact their behavior pattern, population, reproduction and migration. Ecologically birds are very important creatures because they help in pollination and perform crucial roles in seed dispersal.

The Kamanja-sohol wildlife sanctuary is notified by Govt of Maharashtra vide notification dated 07 Dec 2000. During the authorial assessment of Kamanja sohol wildlife sanctuary a total of 191 bird species from 55 different families and 17 different orders were recorded.

"Perching birds" Compraises a maximum of 41 % of birds with 62 species while charadriiformes shares 12.4% with 18 bird species.

In India Muscicapidae is the largest family of birds with 370 species but in the present investigation Anatidae (11 species) showed dominance over Muscicupidae (10 species) followed by Accipitridae (08 species). The reason behind the maximum number of species occurance could be the forest type as it contains grassland, water body and mixed tree forest. On the northern side of Maharashtra the largest protected area i.e Melghat Tiger Reserve (MTR) i.e 276 bird species. When compaxing the two areas, the Karanja sohol Wildlife Sanctuary has a higher density of avifauna than the MTR.

The main objective of study tour is to understand importance of wildlife sanctuary and protection of Endangered species many species of plants and animals are on the verge of extinction such creation are conserved in wildlife Sanctuary. The visit to Sanctuary was not only a new experience for us but also very enriching.

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I would like to thank college and Department of Botany and zoology for such a good opportunities and hope to have some more curriculum activities like this in future.

Principal
...ji Butle Arts,... Bhat Commerce ... Patil Science College,Digras

DIGRAS VIBHAGIYA SHIKSHAN PRASARAK MANDAL'S

Bapuraoji Butle Arts, Narayanrao Bhat Commerce & Bapusaheb Patil Science College, Digras Dist.Yavatmal

PROJECT BOOK

Session 2023 -2024

Student's Name : Dnyaneshwari G. Vilayatkar, Nandini Punam Gajanan Patil Rathod

Class : B.Sc. I Sem II Roll No.:

subject Zoology

Project Subject : Study on diversity of Frogs from Surrounding area.

Diversity of Frog

Date
Page No. 1

Introduction

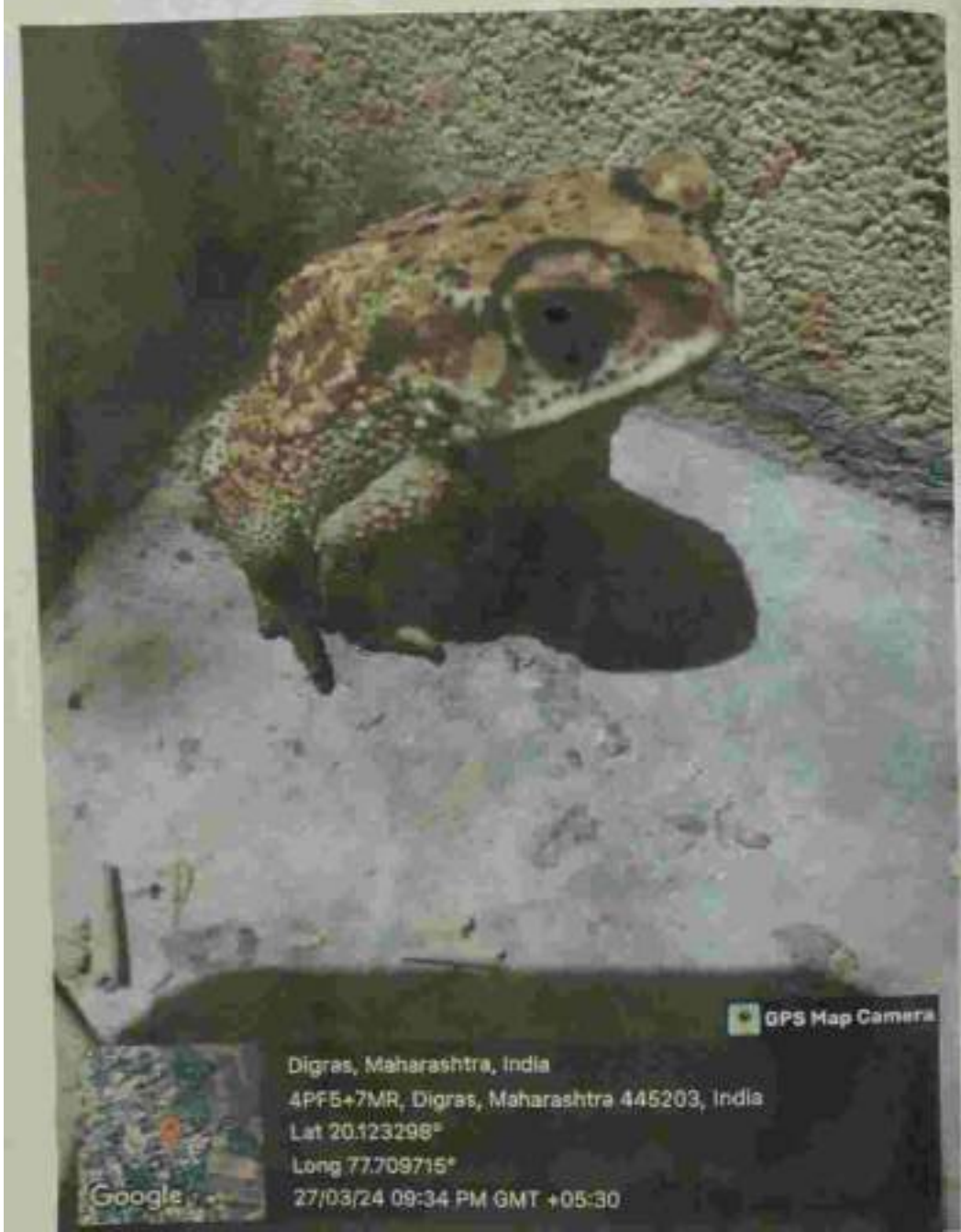
There are over 5,000 species of known frogs, and Scientists Continue to discover new species. frog species Come in a Variety of Size and Colour. They Can be found in a Variety of habitats on every Continent Accept Antarctica. frogs are amphibians which are Cold-blooded Vertibrates meaning they have backbones, that don't have scales Amphibians live both on land and in water other amphibians include Salamander, a newt Caecilian

What's the difference between frogs and toads?
There isn't difference the word 'frog' includes both frogs and toads, while toads are frogs, toads tend to reference a frog that has particularly dry and wordy Skin. Toads also tend to have shorter legs and are more heavy-set. frogs are more likely to live in or near water than toads.

Size and Weight:

frogs vary widely in Size and weight depending on species for example, the West african goliath frog Can grow to 15 inches and weigh as much as 7 pounds meanwhile, the Cuban tree frog grows to only half an inch and weighs approximately 2 ounces.

Appearance: frogs and toads have almost non-existent necks. However, most species have large protruding eyes so they Can see in most direction without needing to turn their head. Most species are also great at hopping in any direction. They have powerful muscles in their back legs allowing them to hop great distances.



Date
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Some frogs can jump over 20 times their own body length, which is similar to a which jumping to mete
In comparison, olympian ~~Mike~~ Mike powell holds the long jump record of 8.95 meters.
frogs come in a variety of colours but they have two main color schemes. Both color schemes are used for different survival techniques. the mottled green and brown colors are used for camouflage so predators have a more difficult time spotting them meanwhile the bright colors, like those of the poison frogs sing signal a warning sign to predators that their skin is toxic. Some South African frogs are so poisonous that you can die from them other frogs like the smooth soled toad have glands behind the eyes that produce powerful toxins that kill anything that tries to eat them.
As their skin, frogs and toads have a moist and permeable skin layer covered with mucous glands. They are able to breathe through their skin in addition to their lungs. the thin layer of mucous keeps their skin moist and protects them from scratches.

3

Diet : Most species eat insects, spiders, worms and slugs. However some of the larger species are able to eat larger prey like mice, birds, and small reptiles. Their skin absorbs water so they don't need to drink water.

Scientific classification	
Domain	- Eukaryota
kingdom	- Animalia
Phylum	- chordata
class	- Amphibia
clade	- Salientia
order	- Anura.

Habitat :
Frogs thrive in a large number of ecol environment from tropical forest to ice frozen tundras to deserts Their skin requires freshwater So most frogs live in aquatic and swampy habitats. There are a number of exceptions including the arrow tree frog which can be found in the amid region of Gran chaco of South America arrow tree frogs produce a waxy substance that they rub all over their skin to prevent evaporation.

Geography :
frog can be found on every ~~habit~~ Continent except Antarctica

Social Structure:
frogs are social creatures and live in groups called armies Colonies · or knots · Similar to fish young frogs will swim together in schools Each species of frog has a unique Call which is used to attract a mate or to warn enemies During the mating season the male frogs croak loudly in a group · Some frog calls can be heard up to a mile away.

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Habitat :-
frogs thrive in a large number of environment from tropical forests to frozen tundras to deserts their skin requires freshwater So most frogs

Breeding :-
Male frogs make calls to attract the females during the mating season. The female will choose a male whose call she releases her eggs in a mating hug called Amplexus. Almost all frog species fertilize the eggs outside the female's body Amplexus can last hours, days, or in some species like the Andean toad, months. the mother will lay hundred the more than 50,000 mother egg. Depending on the species

In many species, the male will guard the eggs. He may transport them on his back in a pouch on his belly, or in his mouth to a safe location until they hatch into tadpoles Although the father is more likely to perform this task, the mother also perform this task the mother also perform this task in some species In some cases, both parents will take Runns. in a pouch in his belly. or in his mouth to a safe location until they hatch into tadpoles. Safe location until they hatch into tadpoles Although the father is more likely to perform this task. the mother also Perform this these taske in some species In Some Cases both parent will take turn babysting the

Date
Page No.

Certain species have different breeding rituals. For example, the marsupial frog keeps her eggs in a pouch, like a kangaroo meanwhile the Surinname toad of south America keeps her young embedded in the skin of her back. The gastric brooding frog Skin of Australia Swallows her fertilized eggs until she releases them when they hatch.

After to abaut two to three weeks, depending on the species. the eggs hatch into tadpoles. Tadpoles also known as pollywogs, have gills and a tail like a fish but a round head. over the Course of a few on the Species, the eggs hatch into tadpoles. Tadpoles, also known as polly wogs, have gills and a tail like fish but a round head. over the Course of a few months the tadpoles will gradually grow legs absorb their tails, lose their gills and turn into frogs that start breathing air and hopping this process is called metamorphosis. in a few months, Some species take longer. For example, the mountain yellow-legged frog takes at least two seasons to morph, due to the cold temperatures and short summer season where it lives.

Lifespan:

The life spans of frogs in the wild are widely unknown; but likely range from one day to 30 years. In captivity, frogs have been known to live more than 20 years.

Threats:

The largest threat a frog species is habitat loss related to human activity and human expansion. For migrating frogs, the increased number of roads and infrastructure through their habitats have increased the number of road kill. Humans have introduced nonative ~~of~~ species like trout and ~~more~~ even other frogs to certain habitats that eat many of the native frogs. ~~population~~ pesticide pollutants from human activity often contaminate the rivers and ponds of frogs, killing local frog and and tadpole populations. Another major threat to frog populations is the spread of a fungus called chytrid. The disease led to the catastrophic decline or extinction of at least 200 species of frogs and other amphibians. The fungus lives in water so frogs are easily infected. The fungus covers their thin skin so the frog can't breathe or get water. Not only does the fungus affect the frog, but it also affects larvae and tadpoles, growing them from eating.

Date
Page No

Conservation status :-

Many species of frogs, nearly 900 species are listed as "Endangered" by IUCN's Red List, over 500 species of frogs have listed as "Critically Endangered." the world is Currently facing an amphibian extinction Crisis. According to IUCN, 41% of the world's amphibians are threatened with extinction.

Conservation Efforts

There are a number of Conservation groups and government agencies working to project amphibian species. National wildlife Federation and Save the frogs are among the Various organisation working toward frog Conservation.
In response to the spread of the chytrid fungus. the panama Amphibian Rescue and Conservation project are working to save frogs through, biosecurity Consultation and educations providing disease testing to over 50 zoos nationwid according to a Se. San Diego zoo wildlife Alliance, 50 amphibian species in central and south America have been reduced and are being maintained in safe Survival assurance Colonies until a time when when it is Safe Safe to return them to their habitat Twelve of the most at risk species have now reproduced in managed Care, including the horned marsupial frog, Crowned tree frog, and limos Harlequin frog.

In the united States, the mountain yellow-legged frog of (Rana muscosa) of Southern California is critically endangered largely as result of habit loss, drought, pesticide pollution, introduced predators, and by chytridiomycosis. The san Diego zoo Wildlife Alliance is working to restore the ecosystem balance in it habitat of the San Jacinto Mountains through managed breeding and reintroduction efforts for the mountains yellow-legged frog.

Since 2010 the zoo has successfully reintroduced zoo-bred mountain yellow-legged frog tadpoles into the wilderness. Radio transmitters have revealed a healthy 95% survival rate the first month and they are now breeding in the wilderness.

बापूरावजी बुटले कला, नारायणराव भट वाणिज्य आणि बापूसाहेब पाटील विज्ञान महाविद्यालय
दिग्रस, ता. दिग्रस, जि. यवतमाळ

Grade A'3.16

प्रकल्प वही (पर्यावरण अभ्यास)
शैक्षणिक सन २०२३ - २०२४

विद्यार्थ्याचे नांव :- कु श्रुती सुनिल बेहेरे

वर्ग :- B.A II

प्रकल्पाचा विषय :- सोहोळ कारेन - काळवीट अन्नग्रहण्य अभ्यासविषयक एकदिवसीय भेटीचा प्रकल्प.

प्रा.डॉ. कु.पी.डी.भट
मार्गदर्शक

डॉ. अरविंद लाडोळे
प्राचार्य

Principal
Bapusaheb Patil Science College, Digras

बापूरावजी बुटले कला, नारायणराव भट वाणिज्य आणि
बापूसाहेब पाटील विज्ञान महाविद्यालय
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शैक्षणिक सत्र 2023-2024

प्रमाणपत्र

प्रमाणित करण्यात येते की,

कु./श्री भूती सुनिल बेहरे

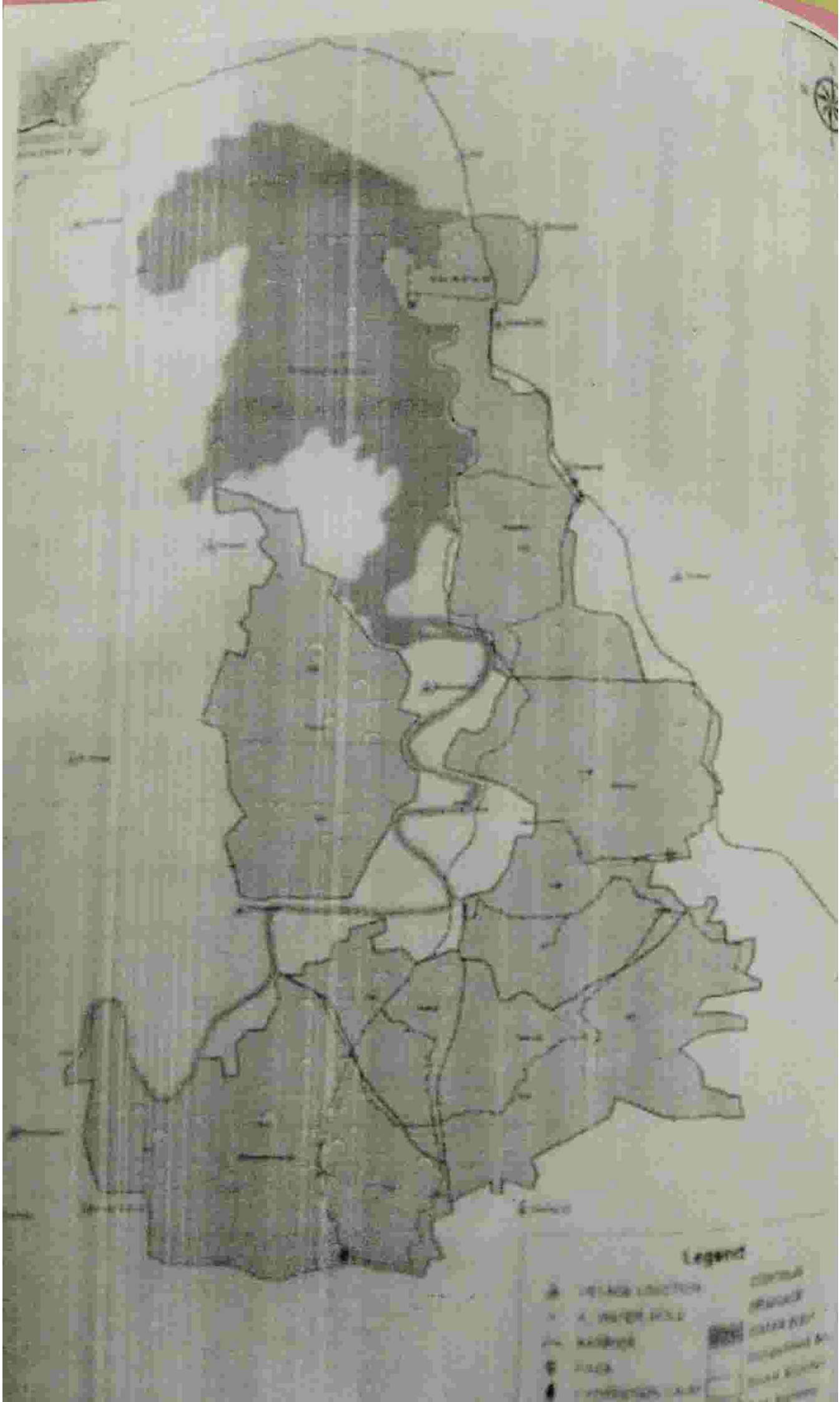
हा / ही बापूरावजी बुटले कला, नारायणराव भट वाणिज्य व बापुसाहेब पाटील विज्ञान महाविद्यालयाचा विध्यार्थी / विध्यार्थिनी असून शैक्षणिक सत्र 2023-2024 साठी त्याने / तिने

फारेज मोहोळ कालवीट अशा विषय

या विषयातील प्रकल्प तयार केला आहे

DIGRAS Pin Code-445203 Dist. Yavatmal (M.S.)

KUPDB
प्रा.डॉ.कु पी.डी.भट
मार्गदर्शक प्राध्यापक


Legend

अनुक्रमणिका

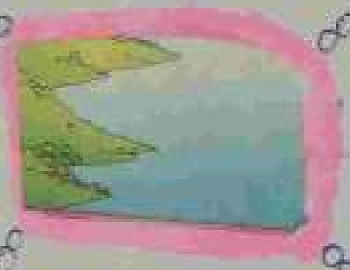
अ.क्र.	प्रकरण	पा.नं.
1)	प्रस्तावना	
२)	पूर्वतयारी	
3)	क्षेत्रभेट अभ्यासक्रम	
4)	वर्णन	
A)	1] महाराष्ट्र राज्य वृक्ष - आंबा	
	2] रानभेंडी	
	3] बेचकुसळ	
B)	1] महाराष्ट्राचे राज्यफुल - ताम्हण	
	2] फुलपाखरे	
	3) बिबळ्या कडवा	
5)	4) फुलपाखराचे जीवनचक्र	
6)	गवताळ प्रदेश	
7)	निशाचर प्राणी	
	1] बिबळ्या / बिबट	
8)	समारोप (निष्कर्ष)	

-ः प्रस्तावना ः-

शैक्षणिक वर्ष 2023-24 साठी मी बी.बी. आर्टस, N.B. Com. & B.P. Sci कॉलेज दिग्रस येथे B.A च्या द्वितीय वर्षाला शिकत आहे. मला पर्यावरण अभ्यास हा विषय अभ्यासक्रमाला असून आमची सोहोळ-कारंजा येथे एकदिवसीय टूर नेण्याचे आयोजन करण्यात आले होते.

कारंजा सोहोळ अभयारण्य हे वाशिम जिल्ह्यातील सुमारे 18 चौ. कि.मी. क्षेत्रावरील छोटेसे अभयारण्य आहे. कारंजा सोहोळ हे काळविटांसाठीचे अभयारण्य म्हणून ओळखले जाते. काळविटांना राहण्यायोग्य जागा तयार करण्यासाठी आणि त्यातून काळविटांची संख्या वाढविण्यासाठी वन विभागाने प्रयत्न सुरू केले. येथे काळवीट, नीलगाय, रानडुक्कर दिसून येते.

कारंजा सोहोळ हे पश्चिम विदर्भातील वाशिम जिल्ह्यात असून कारंजा पासून मानोरा रोड 6.4 km अंतरावर आहे. कारंजा सोहोळ हे अभयारण्य 18.31 km² परिसरात पसरलेला आहे. कारंजा सोहोळ अभयारण्य हे मुख्यत काळविटांसाठी प्रसिद्ध आहे. तसेच 2000 साली या अभयारण्याला [illegible] अभयारण्य घोषित केले



पूर्वतयारी

अभयारण्याला भेट देताना पूर्वतयारी :-

1) अभयारण्याची स्थिती आणि त्याच्या परिसरातील प्राणिजीवन.

2) प्रवेशशुल्क आणि वेळापत्रक

3) पर्यटकांसाठी उपलब्ध आहे किंवा पर्यटक गाडी, इतर गतिविधींसाठी काय आवश्यक आहे.

4) जलद्रव्य आणि खाद्याच्या पाण्याच्या स्रोतांची माहिती.

5) सुरक्षा पालन करण्यासाठी आवश्यक असलेले उपकरण आणि कार्यक्रम

6) प्राणी आणि पक्षीगण्य स्थळांची माहिती. सुरक्षित अनुभवासाठी सूचित ठेवावे वगैरे.

7) सोबत पेन, वही, कॅमेरा, डब्बा, बॉटल इ. तसेच प्रथमोपचार पेटी घेणे आवश्यक.

अभयारण्याला भेट देण्याच्या आनंदाच्या अनुभवासाठी आपल्याला आदर्श आणि सावध तयारी करावी तसेच सर्व नियम आणि विनियमांचे पालन करावे.

-: काटेपूर्णा अभयारण्य :-

महाराष्ट्र शासन अधिसूचना क्रमांक WLP/1028/2/F5 दिनांक 8/02/1988 अनुसये 73.69 चौ.कीमी क्षेत्र हे काटेपूर्णा वन्यजीव अभयारण्याचे क्षेत्र म्हणून घोषित झाले आहे. यामध्ये राखीव वन 98.85 चौ.कीमी. आहे. कारंजा सोहोळ अभयारण्य हे काटेपूर्णा अभयारण्याचाच एक भाग आहे. हे अभयारण्य वनपर्यटनासाठी प्रसिद्ध असून निसर्गशिक्षण प्रदान करण्यासाठी तेथे अधिक सोईसुविधा निर्माण केल्या गेल्या आहे. वनपर्यटन धोरणाप्रमाणे अभयारण्य निसर्गसहलीचे आयोजन मोठ्या प्रमाणात केले जाते. निसर्गशिक्षण प्रदान करण्यासाठी कारंजा सोहोळ अभयारण्याच्या प्रवेशद्वाराजवळ ऑक्टरटॉप नयनरम्य देखावा निरिक्षण मनोरा, निसर्गात बिनात वराण्याची व्यवस्था, बालोद्यान हल्लानेच निर्माण केलेले अल्डा मॉडल निसर्गपरिचय केंद्र ज्यामध्ये पशुपक्ष्यांचे आवाज मुद्रीत केलेले उपकरणे, डिजीटल स्क्रिन, प्रकाशमान होणारे वन्य प्राण्यांचे अनेक चित्र, नयनरम्य वन्य प्राण्यांच्या पुतळ्यांचे प्रदर्शन, निसर्ग पाऊलवाट आदींची निर्मिती केल्या गेली.

तरीच विद्यार्थ्यांची सहल नुसती शैक्षणिक सहल न होता, मनोरंजनात्मक कशी होईल? याचा विशेष प्रयत्न वन्यजीव विभागाने केला. ... फिरून, पशुपक्षी आणि आमचे परिसरात

अनेक विविध रानपुष्पे आणि वनस्पती पाहण्याची संधी पर्यटक विद्यार्थ्यांना मिळेल. वनखाते विभागाच्या तर्फे प्रबलमंगुळशे सुद्धा आयोजित केले जाते. याठिकाणी पिण्याच्या पाण्याच्या व्यवस्थेसोबत विपुल प्रमाणात शौचालयाची उपलब्धता आहे. अशा रितीने युवा विद्यार्थ्यांमध्ये निसर्गप्रेम, निसर्गाबद्दल व निसर्गाचे संवर्धन करण्याची भावना निर्माण करण्याचा प्रयत्न याठिकाणी केला गेला आहे. निसर्गाची प्रचिती हया भेटीमुळे निर्माण झाली. तसेच अनेक नवनवीन वनविषयी सखोल माहिती मिळाली.

आंबा

-: वर्णने :-

① महाराष्ट्र राज्यवृक्ष - आंबा

आंबा हा मध्यम आकाराचा डेरेदार, पर्णसंभाराने शोभिवंत व सदाहार फळे देणारा वृक्ष आहे. हा वृक्ष पूर्ण देशात विपुल प्रमाणात आढळतो. याच्या अनेक जाती आहेत. याच्या फळांच्या अनेक जाती जगप्रसिद्ध आहेत.

② रानभेंडी :- रानभेंडीला हुळी गौरी असेही म्हटले जाते. रानभेंडीचे झुडूप असून, तिला चाकडे काटे असतात. उष्ण कटिबंधात ही रानभेंडी सर्वत्र आढळते. विशेषतः कोल्हापूर जिल्ह्यामध्ये सर्वत्र, कोकण, घाटमाथा इथे ही आढळते. ताप, सर्दी, खोकला, मूतखडा यावर पारंपरिक पद्धतीने आयुर्वेदिक उपचार केला जाते.

③ बेचकुसळ :- Alternanthera sessilis

ही एक जंगली रानवर्गीय वनस्पती आहे. जी जगभर वेगवेगळ्या नावांनी ओळखली जाते. हिची जगभरात काही ठिकाणी भाजी म्हणून लागवड केली जाते. ही एक बारमाही औषधी वनस्पती आहे. ज्यामध्ये टोकदार दांडे असतात. ही वनस्पती उष्णकटिबंधीय आणि उपोष्णकटिबंधीय प्रदेशांमध्ये आढळते. सर्वत्र औषधी म्हणून. वनस्पतीमध्ये लक्षणीय प्रमाण पाचनाशक, शीतकरण, शक्तिवर्धक आणि रेचक गुणधर्म आहेत. मूळव्याधासाठी याचा [illegible] साठी वापरले जाते.

ताम्हण

महाराष्ट्राचे राज्य-फूल : ताम्हण

1) ताम्हण :-

हा फुले देणारा वृक्ष आहे. या वनस्पतीला फुले साधारणपणे एप्रिलच्या सुमारास उन्हाळ्यात महाराष्ट्र दिन काळात येत असल्याने याचे फूल महाराष्ट्राचे राज्यपुष्प आहे. ताम्हणाचे फूल मोलसर जांभळ्या रंगामुळे ओळखले जाते. मूळचे उपखंडातील असणारे हे फूल आपल्या लावण्यगुणांमुळे आता युरोप-अमेरिकेतही पोहचले आहे.

वैज्ञानिक नाव :- Lagerstroemia

फुलपाखरे

फुलपाखरू हे एक आकर्षक रंगाचा पंख असलेला एक कीटक आहे. डोके, पोट, छाती हे अवयव असतात. फुलपाखराला चार जोडीने पंख आणि मिशा असतात. फुलपाखरे मिशांनी वास घेतात तर पायाने चव ओळखतात. फुलपाखराच्या अनेक जाती आहेत. पैकी एक म्हणजे

<u>बिबळ्या कडवा</u> :- बिबळ्या कडवा या जातीच्या फुलपाखरांची मादी रुईच्या पानांवर अंडी घालते. अंड्यामधून सात ते आठ दिवसांनी अळी बाहेर पडते. या अळीलाच सुरवंट म्हणतात. फुलपाखराचा सुरवंट कोषातून बाहेर पडतेवेळी शोकने लपलेला असतो. <u>मोनार्क</u> जातीची फुलपाखरे लांब प्रवासासाठी प्रसिद्ध आहेत.

मोनार्च फुलपाखरू

कोशातील फुलपाखरू

कोशातून फुलपाखरू बाहेर येताना

फुलपाखराचे जीवनचक्र

—: फुलपाखराचे जीवनचक्र :-

फुलपाखराचे जीवनचक्र प्रक्रीया म्हणजे त्याच्या जीवनाची सातत्यीन प्रक्रिया आहे. उत्पन्न झालेल्या प्रकाराची वर्णने करणे. फुलपाखरांचे जीवनचक्र चार टप्प्यात होते. [अंडी, अळी, कोश, पतंग] आणि फुलपाखरू अंडे / अंडी - विशिष्ट जातीची फुलपाखरे ही काही विशिष्ट पद्धतीची प्रकाराच्या आडोशा अंडी घालतात. प्रत्येक जातीच्या फुलपाखरांचे होस्ट प्लांट ठरलेले असते. फुलपाखराची मादी ही मिलनानंतर लगेचच तीन ते पाच दिवसांत घालते व त्यावर अंडी घालते. आणि अळ्या किंवा सुरवंट दोन ते तीन दिवसांत अंड्यातून बाहेर पडतात. नवीन उबवलेली सुरवंट स्वतःची अंडी खातो आणि नंतर वाढण्यास पुरेसा मिळवण्यासाठी पाने खातो. सुरवंट पुरेसा वाढतो आणि खुंटतो आणि सुमारे तीन ते चार आठवड्यानंतर तो प्युपेट होऊ लागतो. एकदा सुरवंट स्थायी आणि वाढणे पूर्ण झाल्यावर, पान संप्रेरकांची कमतरता असते, ज्यामुळे सुरवंट स्वत: भोवती एक रेशीम कोकून किंवा चमकदार क्रिसालिस बनवतो. आणि एक संपूर्ण फुलपाखरामध्ये संपूर्ण रूपांतरित होऊ लागतो. अशाप्रकारे फुलपाखरू तयार होण्याची अळ्यांपासून ते फुलपाखरे तयार होतात.

-ः गवताळ प्रदेश ः-

गवताळ प्रदेशात तृणभक्षक व त्यावर जगणारे मांसभक्षक असे दोन्ही प्रकारचे प्राणी राहतात. प्राण्यांचे रंग व त्यांच्या अंगावरील पट्टे किंवा ठिपके यांमुळे ते गवतात पटकन दिसून येत नाहीत. या रंगसादृश्याचा फायदा संरक्षण पलायन व आक्रमण यासाठी होतो. तृण भक्षकांना बळकट पायांमुळे वेगाने पळून जाऊन शत्रूपासून बचाव करता येतो. पृथ्वीवर उष्ण व समशीतोष्ण कटिबंधात खंडांच्या अंतर्भागात मुख्यत: गवताने आच्छादलेले विस्तृत, सपाट, मैदानी व पठारी गवताळ प्रदेश आढळतात. पृथ्वीवरील जमिनीचा सुमारे २४% भाग गवताळ प्रदेश आहे.

गवताळ प्रदेशात पाऊस इतक्या बेताचा पडतो, की त्याची ओल जमिनीच्या खालच्या थरापर्यंत पोहोचत नाही. ती वरच्या थरातच राहते. ही गोष्ट झाडांपेक्षा गवताच्या वाढीला अधिक पोषक असते. अधूनमधून दिसणाऱ्या व फुलांनी बहरलेल्या डेरेदार वृक्षांमुळे हा प्रदेश खुलून दिसतो. नैऋत्य मान्सून पावसाच्या आगमनाच्या बरोबर गवताला फूट येते, आणि उन्हाळ्यातील शुष्क काळात गवत वाळून जाते. त्यामुळे गवताळ प्रदेशाचे स्वरूप हंगामी असते. महाराष्ट्रातील सोलापूर अहमदनगर ... तसेच कर्नाटकात पहावयास मिळतो.

Leopard - बिबळ्या / बिबट

-: निशाचर प्राणी :-

निशाचर प्राणी हे दिवसा झोपणारे किंवा विश्रांती घेणारे व रात्री जागणारे असतात. निसर्ग परिचय केंद्रातील या भागामध्ये आपल्याला निशाचर कीटक, पक्षी, आणि प्राणी यांची ओळख करून देणार आहेत. निशाचर सजीव हे रात्री शिकार करून आपले जीवन व्यतीत करतात.

बिबळ्या / बिबट :-

बिबट्या हा चपळ, टाकद राहणारा आणि निशाचर प्राणी आहे. कोणत्याही भागात सहजपणे वावरणारा चलाख सस्तनी शिकारी आहे. आपल्या शक्तिमान जबड्यामुळे आणि भक्कम कवटीमुळे आपल्यापेक्षा जास्त वजनाच्या प्राण्यांची शिकार सहजपणे करू शकतो. प्रामुख्याने हरीण, नीलगाय, रानडुक्कर आणि माकडांची शिकार करतो. नर बिबळ्याची लांबी 127 ते 142 सेंमी. व शेपटीची लांबी 80 सेंमी असते. वजन 30 ते 77 किलोग्राम असू शकते. मादीचा आकार नरापेक्षा लहान व वजन नरापेक्षा कमी असते.

समारोप :-

EVS या प्रकल्पाच्या भेटीमुळे निसर्ग बद्दलचे जे प्रेम निसर्गातील भावना व्यक्त होताना दिसताल.

या EVS प्रकल्पाच्या भेटीमुळी वृक्षाची विविध रूप पक्ष्याची कानवाल्य सौंदर्य पहायला मिळाली. नदीकिनारी बसून अनुभवलेली सोरथ्याने अनुभवलेली शांती तिथे अनुभवली. म्हणून आयुष्यात मृत्यूनंतर एकदाच येतो पण जीवनात जन्माला दररोज येत असतो. आणि या दररोजातील काही दिवस या निसर्गातील नंदनवनात घालवले तर हे आयुष्य अधिकच हेतलवेले पुन्हा नव्याने जगावेसे वाटणारे नक्कीच होऊन जाईल.

म्हणून या निसर्गावरती सतत प्रेम करावे. विद्यार्थी एक शतीना एक निसर्ग प्रेमी म्हणून ध्यानी ठरेल.

असाप्रकारे आपण या प्रकल्पामध्ये पर्यावरणीय अभ्यासविषयक भेट या विषयाची सविस्तर माहिती शिक्षकांच्या मार्गदर्शनातून मिळाला. आणि याचा नक्कीच आम्हाला भविष्यात उपयोग होईल.

बापूरावजी बुटले कला, नारायणराव भट वाणिज्य आणि बापूसाहेब पाटील विज्ञान महाविद्यालय

दिग्रस, ता. दिग्रस, जि. यवतमाळ

Grade A'3.16

प्रकल्प वही (पर्यावरण अभ्यास)

शैक्षणिक सन २०२३ - २०२४

विद्यार्थ्यांचे नांव :- कु. पुनम किशोर राठोड

वर्ग :- B.A II

प्रकल्पाचा विषय :- कांरजा सोहळा अथवारण भेट

Seen

प्रा.डॉ. कु.पी.डी.भट
मार्गदर्शक

डॉ. अरविंद लाडोळे
प्राचार्य

DIGRAS Pin Code-445203 Dist.Yavatmal (M.S.)

Principal
Bapurao ji Butle Arts, Narayanrao Bhat Commerce & Bapusaheb Patil Science College, Digras

अनुक्रमणिका

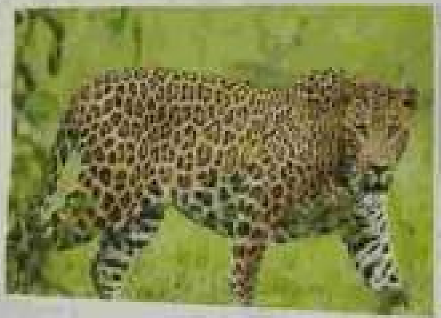
पर्यावरण हा विषय B.A. II Year आपण या वर्षापासून चालू झाला आहे. त्यानुसार आमच्या कॉलेज तर्फे एक सहल आयोजित करण्यात आली होती. ती सहल 14/02/2024 रोजी कारंजा येथे कारंजीट अभयारण्यात येथे नेण्यात आली होती. या सहलीचे मार्गदर्शन करण्यासाठी डॉ. भट मॅडम आणि डॉ. भगत सर. यांनी आयोजित केले होते..

EVS

कारंजपुर्ण अभयारण्य महाराष्ट्र शासन अधिसुचना क्र. WLP/L0287/2/FS दि. 8/2/1988 अन्वय 73.69 चौरस किलो मीटर क्षेत्र हे कारंजपुर्ण वन्य जीव अभयारण्याचे क्षेत्र म्हणून घोषीत झाले आहे. यामध्ये राखीव वन 38.85 चौ. से. कि. मीटर आहे....

कारंजा सोहळ अभयारण्य हे कोरपूर्ण अभयारण्याचाच एक भाग आहे हे अभयारण्य वनपर्यटनासाठी प्रसिद्ध असून निसर्गशिक्षण प्रदान करण्यासाठी तेथे आधिक सोई सुविधा निर्माण केल्या अभयारण्या निसर्ग सहलीचे आयोजन मोठ्या प्रमाणात केले जाते. निसर्गशिक्षण प्रदान करण्यासाठी कारंजा सोहळा अभयारण्याच्या प्रवेशद्वाराजवळ वनकुटीत नयनरम्य असा दखवा निसर्गशिक्षण झालेला. निसर्गात निवांत बसण्याची व्यवस्था आयोजनात. नव्याने निर्माण केलेल्या अशा [illegible] निसर्ग परिचय केंद्र आमहेचे पशुपक्ष्यांचे आवाज मुद्रित केलेले उपकरणे डिजीटल स्क्रीन प्रत्यक्षात [illegible] होणारे पशु पक्ष्यांचे अनेक चित्र नयनरम्य वन्य वन्य प्राण्यांच्या पुतळ्यांचे अद्भुत निसर्ग पायवाट यांची निर्मिती केल्या गेल्या आहे.....

तसेच विद्यार्थ्यांची सहल सुरवती शैक्षणिक सहल न होता मनोरंजनात्मक कशी होईल यांचा विशेष प्रयत्न वन्य-जीव व विभागाने केला आहे.
परिसरात असणारे किटक पशुपक्षी आणि अनेक वनस्पती पाहण्याची संधी पर्यटक विद्यार्थ्यांना आणि पर्यटन मिळाले. वनस्पती व वनजीव विभाग तर्फे प्रश्नमंजुषेचे सुध्दा आयोजन केले होते. त्या ठिकाणी पिण्याच्या पाण्याच्या व्यवस्थेबरोबरच सुंदर व स्वच्छ परिसर सुध्दा पाहायला मिळाला आहे. अशारितीने युवक युवा विद्यार्थ्यांमध्ये निसर्ग प्रेम निसर्ग ओळख व निसर्गाचे संवर्धन संरक्षण करण्याचे भावना निर्माण करण्याचा प्रयत्न याद्वारे केला गेला आहे.



हिम बिबट्या

1. हिम बिबट्या

शास्त्रीय वर्गीकरण

संघ :	पृष्ठवंशी	उपकुळ :	पँथरिने
जात :	सस्तन	जातकुळी :	uncia
वर्ग :	मांसभक्षक		
कुळ :	फेलिडे	जीव :	P. uncia

वैशिष्ट्ये / वर्णन

हिम बिबट्याच्या अंगावरील केस हे पांढरे आणि राखाडी रंगाचे असून डोक्यावर आणि मानेवर काळ्या रंगाचे डाग असलेले पाहायला मिळतात.
त्याच्या शरीरावरील केस हे ५ आणि ५ ते १२ सेमी लांब असतात. हिम बिबट्याचे शरीर हे पँथेरा या जातीच्या इतर मांजरी पेक्षा लहान आहे. त्याचे वजन २२ किलो ते ५५ किलो पर्यंत असते. त्याचे वरचे दात २०८ मिमी असेल तरी पँथेरा जातीच्या प्रजाती पातळ असते. त्याचे पसरट पंजे बर्फावर चालण्यासाठी मदत करतात.

सिंह

२. सिंह....

शास्त्रीय वर्गीकरण

वंश :	पृष्ठवंशी	जात कुळी	पँथेरा
जात :	सस्तन		
वर्ग :	मांसभक्षक	जीव	पँथेरा लिओ
कुळ :	मार्जार कुळ		

वैशिष्ट्ये :

सिंहाच्या शरीरावरील केसाचा रंग पिवळसर, कधी तेथ थोडा राखाडी असतो. प्रकाशामध्ये हा रंग चांदिसारख्या चमकतो. पूर्ण वाढ झालेल्या नर सिंहाचे वजन १८० ते १९० किलोपर्यंत असते. तर सिंहाची उंची ३.५ ते ४ फुटांपर्यंत असते. मादी सिंहाचे वजन १०० ते १५० किलोपर्यंत असते नर सिंहाच्या मानेच्या रंग हा प्रदेशानुसार व वयानुसार बदलत असते.

अधिवास....

सौराष्ट्राच्या गिर जंगलामध्ये सिंह संवर्धनासाठी अभयारण्य म्हणून ५४५२-२ चौ. कि. मी. क्षेत्र घोषित केले आहे.

DIGRAS Pin Code-445203 Dist. Yavatmal

अस्वल

३. अस्वल....

शास्त्रीय वर्गीकरण

वर्ग :	पृष्ठवंशीय	कुळ	Ailuridae
जात :	सस्तन	जातकुळी	Ailurus
वर्ग :	मांसभक्षक	जीव	A. fulgens

वैशिष्ट्ये / वर्णन :

अस्वल हा निशाचर सस्तन प्राणी आहे. त्यांच्या पाठीवरचा रंग तांबूस आहे व पोटाकडून रंग काळा आहे. डोपूर गडद नारिंगी रंगाचे व मोठी जाड असते. शरीराच्या मानाने यांचे डोके मोठे आणि नाक टोकदार असते पाय लहान. पंजे धारदार नखांचे असतात. लाकडाचा पांडा झाडावर चढण्यात पटाईत असतो...

अधिवास :

अस्वली मांजर हे पूर्व हिमालयातील नेपाळ अरुणाचलप्रदेश तसेच उत्तर म्यानमार आणि व दक्षिण चीन प्रांतातील समशीतोष्ण वनात आढळतात...

मोर

4. मोर....

शास्त्रीय वर्गीकरण

जीवसृष्टी :	प्राणी	वर्ग	कुक्कुटाद्या
कुळ :	कणाधारी	कुळ	कुक्कुटाद्या
जात	पक्षी	जीव	क्रिस्टेटस

वैशिष्ट्ये :

नर मोर चमकदार रंगाचा असतो मुख्यत: निळ्या पंखासारख्या स्पेटला [illegible] तारसारख्या पंखांचा शिखर असते. पंखांच्या वरच्या शेपटीच्या गुप्त पंखांनी बनलेल्या लांब देण्यासाठी ओळखला जातो. रंगबिरंगी ठेके असतात. मोर हा मोठ्या आकाराच्या पक्षी आहे. यात नराची लांबी 100-115 सेमी (39-45 इंच) आणि पूर्ण वाढ झालेल्या पिसाऱ्याच्या शेपटी 195-225 सेमी (77-89 इंची) इतकी असते. मोराचा वजन 4-6 किलो पर्यंत असते अंडोर उष्णतेच मादी सुमारे 95 सेमी (37 इंच) लांबीच्या असतात.

अधिवास : मोर हा भारतभरात उपलब्ध सर्वत्र आढळणारा मोर आहे हा प्रौढपणेच्या कोरड्या सखल भागात देखील आढळतो भारतीय हा पक्षी 450 [illegible] उंचीपर्यंत पोहोचता होता...