DEPARTMENT OF GEOGRAPHY

GEOGRAPHICAL EXCURSION (2023)

CHANDIPUR, BALASORE DISTRICT, ORISSAFIELD BOOK

FIELD BOOK

South Calcutta Girls' College

72, Sarat Bose Road

Kolkata 25

DEPARTMENT OF GEOGRAPHY

To Whom It May Concern

This is to certify that Smt. Sk. Suhana Roll No 213035-11-0026 and Registration No 035-1211-0218-21 a student of 5th semester (Geography Hons CBCS) of South Calcutta Girls' College, has completed her field work at Srikona Mouza, Chandipur, Balasore district, Orissa from 29th November to 3rd December 2023 under our supervision.

Chandana Chatterjee 19.1.24.

Prof Chandana Chatterjee

SOUTH CALCUTTA GIRLS' COLLEGE ESTD.- 1932

Susmita Mandal 19.01.24.

Prof Susmita Mandal

Sumit Kumar Mukherjee 19.1.24.

Prof Sumit Kumar Mukherjee

Department of Geography
South Calcutta Girls' College

CONTENT

UNIVERSITY OF CALCUTTA

B.Sc SEMESTER -V (HONOURS) EXAMINATION 2023

(UNDER CBCS)

GEOGRAPHY FIELD REPORT

C.U ROLL NO: 213035-11-0026

C.U REGISTRATION NO: 035-1211-0218-21

Examined
10.02.2024

A STUDY OF THE SOCIO-ECONOMIC
AND LIVELIHOOD PATTERN OF THE
FISHERMEN
OF SRIKONA MOUZA, CHANDIPUR,
BALASORE DISTRICT, ORISSA

LIST OF MAPS AND DIAGRAMS

MAPS

1. Location Map of Srikona Mouza
2. Toposheet of Chandipur.
3. Route map of Chandipur.
4. Relief map surrounding Chandipur; Orissa.
5. Distribution of Rocks and Minerals surrounding Chandipur; Orissa.
6. Variation of slopes surrounding Chandipur; Orissa.
7. Climatic condition surrounding Chandipur; Orissa.
8. Distribution of Soil types surrounding Chandipur; Orissa.
9. Land use and cropping pattern surrounding Chandipur; Orissa.

DIAGRAMS

1. Longitudinal Profile by Dumpy Level survey plotted by Collimation Method
2. Contouring by dumpy Level and prismatic compass survey plotted by collimation method.
3. GNSS survey along the coast and high tide line of Chandipur, District: Balasore, Orissa.
4. Pie Diagram showing male and female population of Srikona mouza
5. Age-sex pyramid showing male and female population of different age-group of Srikona mouza.
6. Bar graph showing Educational structure of Srikona Mouza
7. Conical Bars showing engagement in types of fish marketization of Srikona mouza.
8. Pie diagrams showing categorisation of fishing allied activities of Srikona mouza.
9. Bar graphs showing seasonal variation in fish catch of Srikona mouza.
10. Pie diagram showing respondants engaged in catch of different species of fish of Srikona mouza.
11. Bar graphs showing different kind of net used by fishermen in Srikona mouza.
12. Pie diagram showing different craft used for fishing by fishermen in Srikona Mouza.
13. Bar graphs showing average fishing hours of fishermen in Srikona Mouza.
14. Pie diagram showing engaged organisation in the preservation of excess catch of Srikona Mouza.
15. Pie diagram showing occupational pattern of Srikona Mouza
16. Annual Income profile of Srikona mouza.
17. Annual Expenditure of Srikona Mouza.
18. Square diagram showing different type of houses in Srikona Mouza
19. Conical Bars showing sanitization facilities of Srikona Mouza.

LIST OF PHOTOGRAPHS

1. Our whole group, in the hotel Lawn.
2. Remnant of sand dune in the chandipur beach.
3. Two misfit Rocky chunks on the flank of a dune surrounded by bushes and shrubs.
4. Ripple marks are found prominently as the sea water resides towards the deep sea.
5. Close view of the ripple marks.
6. River Burhabalanga forms a prominent meander where the fishing boats find a shelter on its one side.
7. Casuarina extension in the coastal periphery of chandipur beach.
8. Rare occurrence of green grass in the chandipur beach.
9. Away from Chandipur, there is a change in relief and natural vegetation.
10. Our student engaged in household survey at Srikona Mouza.
11. Primary school at Srikona mouza.
12. Children are moving towards their school.
13. A typical classroom of the primary school
14. Fishing trawlers at the small river port of Burhabalanga
15. The catch has been sorted and distributed in the containers
16. Unloading of the catch from the trawlers are going on promptly
17. Catch (fish) being collected and kept in separate containers for marketization.
18. Fishing net kept in the courtyard of a fisherman family.
19. Fishing net are also cared by household woman in Srikona mouza.
20. Heavy and wide spread net are carried by a fisherman for fishing purpose, found in Chandipur beach.
21. Weaving of fish nets by fisherman at srikona mouza

CHAPTER 1

INTRODUCTION

In geography field work is very important it involves the minute observation of landscape - both natural and cultural in the field at the same time the art of observation is not simple and requires a scientifically trained eye. The knowledge of the surface feature of the earth gained by maps may be truly visualised by sightseeing and perfected by detailed comparision with actual facts in the field. With the natural background in mind , we the 5th semester Geography honours student of South Calcutta Girls' College went to Chandipur very close to Balasore of Orissa state to have a comprehensive geographical study of the selected region.

The field area was selected as the site for our excursion on certain consideration:

i) As the region is located in the coastal plane of Orissa from the physical point of view it draws ample attraction

ii) The ecological condition and the mode of life as well as the economic activities of the people of the region is interesting in the sense that the area is situated in the coastal belt of Bay of Bengal where coastal deposits, sand dunes and the port facilities are also not worthy

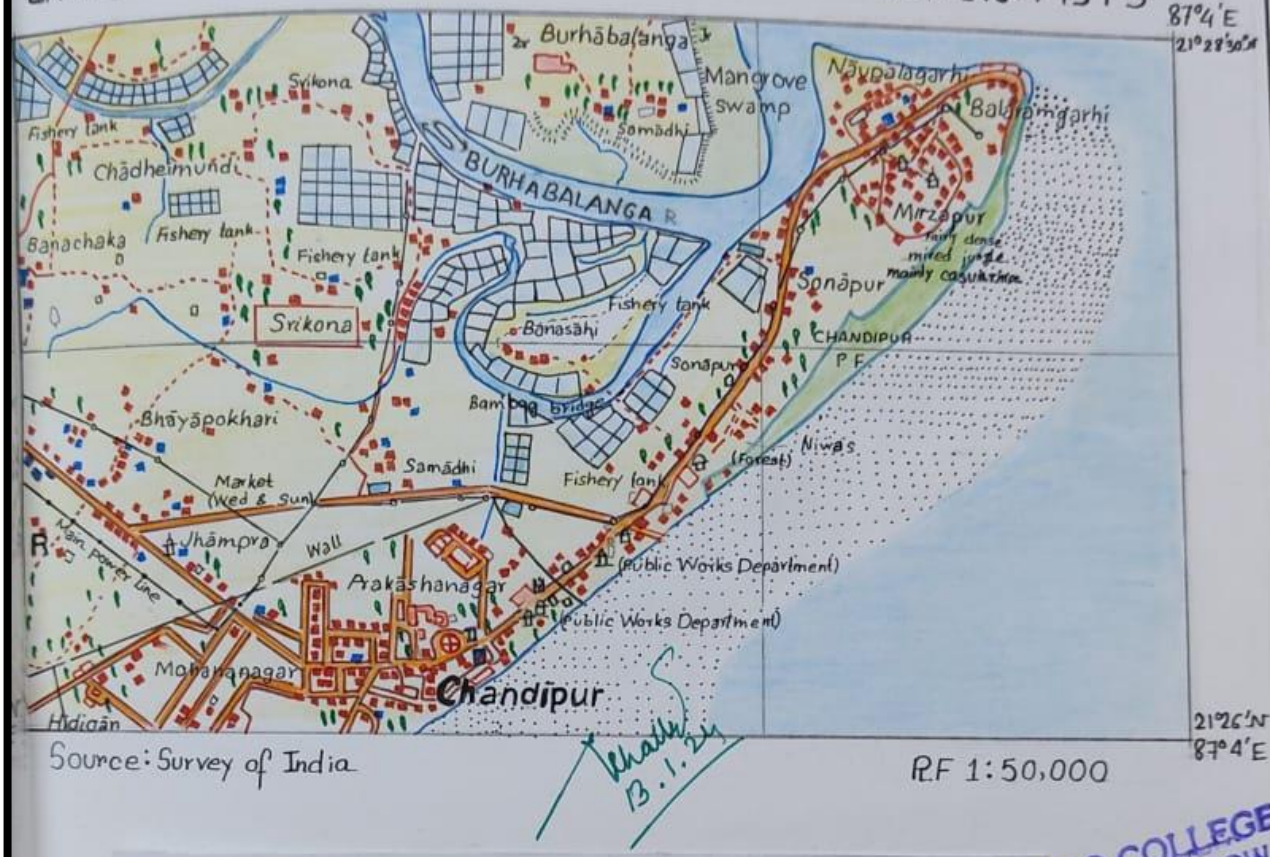
OBJECTIVES:-

As the part of the prescribed curriculum of CBCS Geography Honours University of Calcutta field study is compulsory for all student in order to get through and vivid idea of a region through interaction

ORISSA

BALASORE DISTRICT

MAP NO. F45 P3



Source: Survey of India

R.F 1:50,000

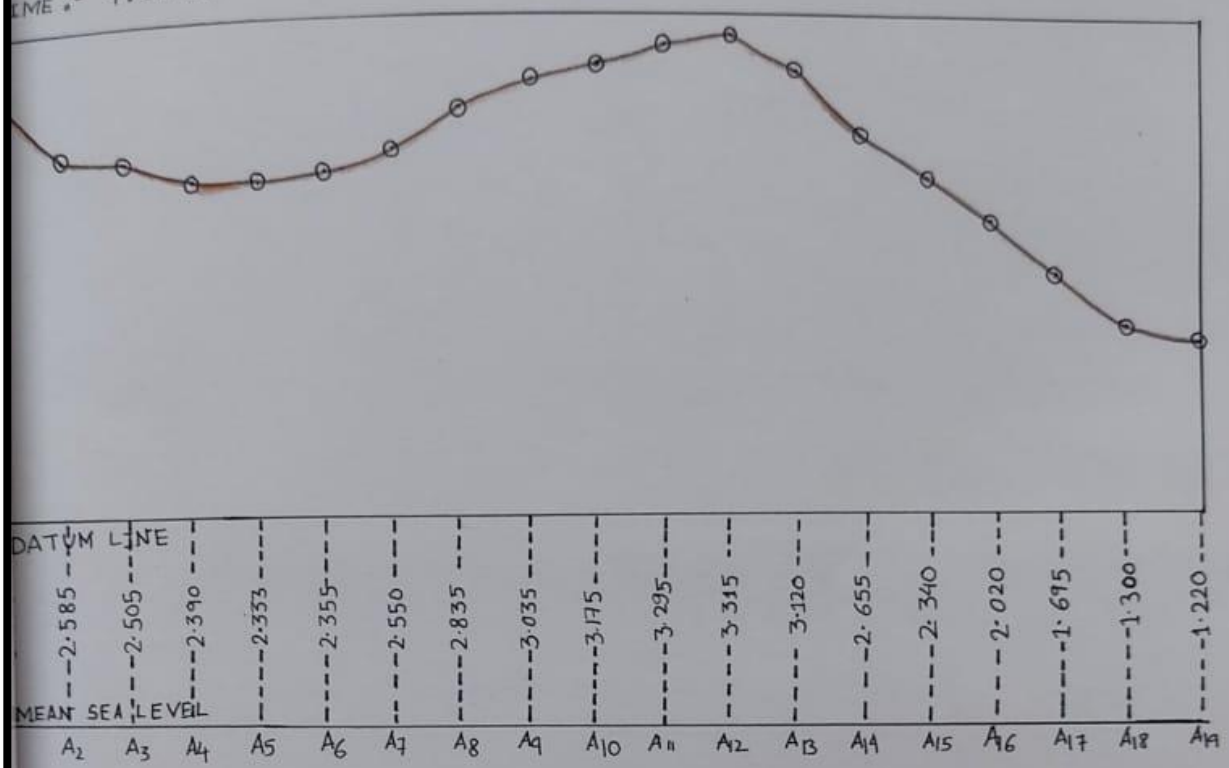
13.1.23

OUR WHOLE GROUP, IN THE HOTEL LAWN

LONGITUDINAL PROFILE BY DUMPY LEVEL SURVEY
PLOTTED BY COLLIMATION METHOD

PLACE :- CHANDIPUR
DATE :- 2.12.2023
TIME :- 9:30 AM

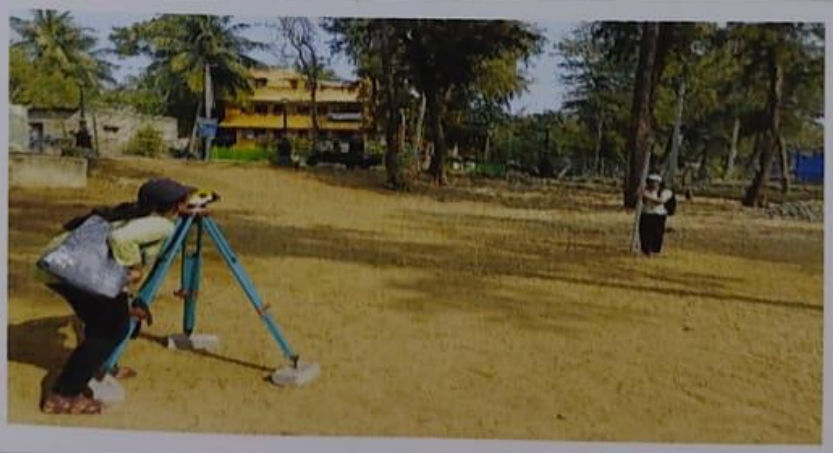
ROLL NO:-213035-11-0026
INSTRUMENT NO:- DSL 240



Horizontal Scale :- 1cm ≅ 5 Mts.
Vertical Scale :- 1cm ≅ 0.5 Mts

Source :- DUMPY LEVEL SURVEY

LORETO COLLEGE
03.01.24, U71



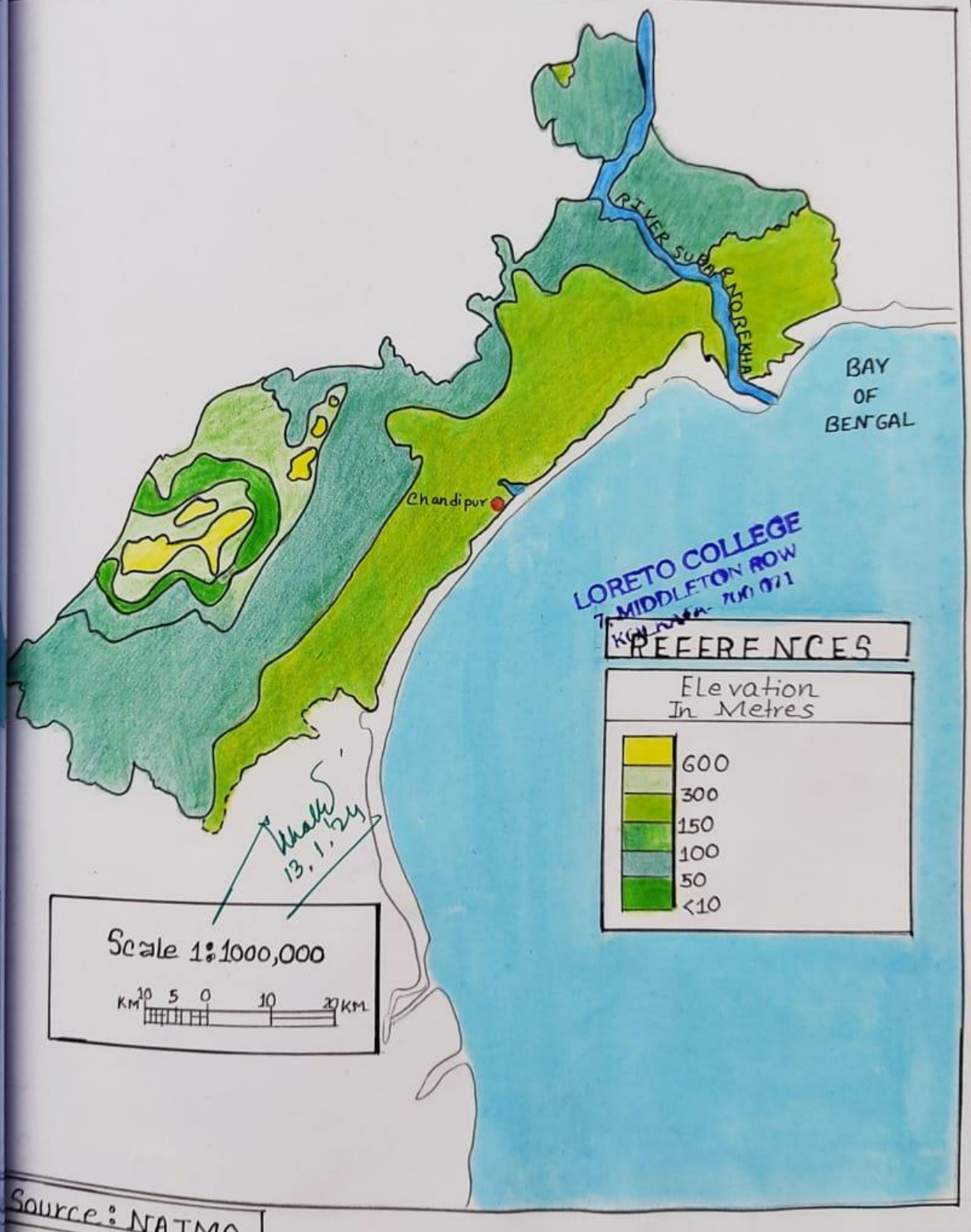
PHYSICAL LANDSCAPE

Chandipur (21°47'N : 87°02'E) is located on the shore of Bay of Bengal and this approximately 16 km from Balasore Railway Station. Its beach is unique in way that the water recedes upto 5km during the ebb tide. Due to its unique circumstances, the beach supports bio-diversity. Chandipur beach can be submerged at high tide. The study area is situated in the extreme southern part of Balasore district, Orrisa as well as close to the confluence of Burhabalanga river with Bay of Bengal. The average elevation of Chandipur is 3 metres (9.8 feet) above sea level. It is situated 255 km away from Kolkata and mostly marked by fishing activity in the sedimentary structure in an around Chandipur Beach.

GENERAL GEOLOGY :-

Chandipur, one of the important coastal places of Balasore district of Orissa, experiences no such striking geological formation, except the development of sedimentary facies and sedimentary structure in an around the Chandipur Beach. Practically the beach area is a narrow maritime strip of land; in many place impregnated with salt and unfit for cultivation which has been formed by the silt-laden rivers debouching

RELIEF MAP SURROUNDING CHANDIPUR; ORISSA



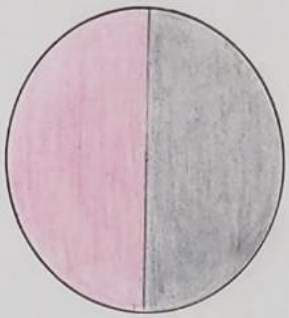
SOCIO-ECONOMIC AND LIVELIHOOD PATTERN OF THE FISHERMEN COMMUNITY OF SRIKONA MOUZA, OF BALASORE DISTRICT, ORISSA

Fishing is one of the important source of income of the people who live near the coastal area and has a significant impact on their livelihood and socio-economic development. The focus of our field study was to collect important data on the socio-economic and livelihood pattern of the fisherm n communities at Srikona mouza of Chandipur area in Balasore district of Orissa through the standard questionnaire survey method. The field study also highlight the various aspects of fishermen livelihood such as actual fishing, fish seed collection, various other fishing allied like marketing of fish, net making, peeling etc. The present study uses both primary and secondary data. The primary data were collected through field study whereas secondary data is collected from Census of India, NATMO maps etc. During survey it is found that majority of the village population belong to traditional fisherm n community.

DEMOGRAPHIC PROFILE:—

The distribution of male and female population of Srikona Mouza is almost equal, but the variation regarding age-group is slightly different.

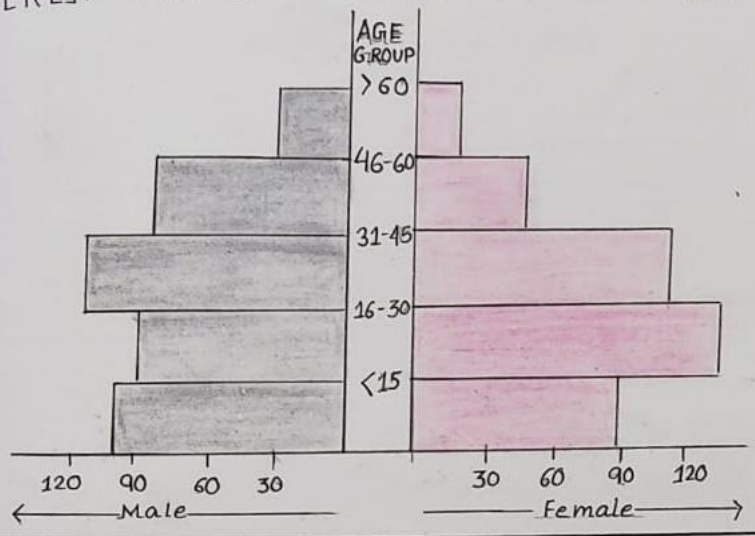
PIE DIAGRAM SHOWING
THE DISTRIBUTION OF MALE AND FEMALE POPULATION



INDEX
Male
Female

Scale: 1cm ≅ 6%

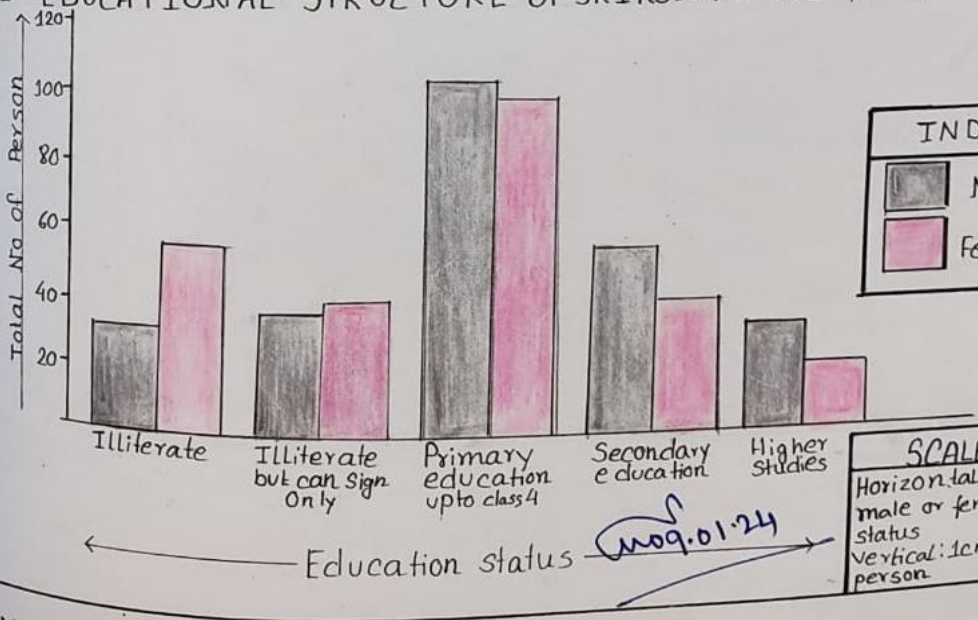
AGE-SEX PYRAMID SHOWING THE MALE AND FEMALE POPULATION OF DIFFERENT AGE GROUP OF SRIKONA MOUZA CHANDIPUR, BALASORE



INDEX
Male
Female

SCALE
1cm ≅ 30 Male & Female population

BAR GRAPH SHOWING
THE EDUCATIONAL STRUCTURE OF SRIKONA MOUZA, BALASORE, ORISSA



INDEX
Male
Female

SCALE
Horizontal: 1cm ≅ 1 male or female education status
Vertical: 1cm ≅ 20 no of person

09.01.24

SOURCE: DD

CONCLUSION

Our present study revealed that the fisherman in Srikona Mouza of Chandipur area are socio-economically poor, since the money is received from selling fish in insufficient to support their families most of the fishermen also do other jobs — such as day-labour, agricultur, and animal husbandry. It was found that the majority of fisherman are unable to obtain higher education due to financial stress. Although the goverment has taken some specific measures to improve the education rate of fishermen, further action is needed for their upliftment. Moreover, the fishermen are totally deprived of the basic infrastructure such as housing, educational institution, connectivity of road, street electrification and good sanitation. Climate alteration have multi-dimensional effect on human activities. When it suddenly undergoes radical change the productivity of fish is also effected. The impact of unpredictable climate change has emerged as a miserable condition of the fisherman a coporative based association may be established to investigate the different issues faced by fishing community and formulate a strategy of appropriate management, financial and social and the introduction of better technology. The Local non-government organisation (NGO) must be established and maintained in order to impo the living condition of fishermen of Srikona mouza and provide proper advice and financial support to increase their income.

Seen 19.1.24

Seen 19.01.24

Seen 19.01.24

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5. Panda G, (2018) Socio-Economic Inclusion of Fishermen, 7(6) 2016 - 2016; https://doi.org/10.21275/ART 2018 3299

6. Sethy Swapnasarita and Nayak Dalapati; Livelihood Activities among the Marine Fishermen Community in Odisha: Issues and Challenges; IJSR; ISSN: 2319 - 7064.

7. District census handbook, Balasore, Orissa.

DEPARTMENT OF BOTANY

Report on Field Study Trips during (2023-2024)

1	Place of excursion:- Bakkhali Document Files: 0470/2022-23	Date :- 2-3 rd June, 2023 No of students enrolled:- 10 Semester/year:- 4th Sem Hons.
2	Place of excursion:- Botanical gallery, Indian museum Document Files: 286/2023-2024	Date :- 6.12.2023 No of students enrolled:- 27 Semester/year:- 4th Sem Hons.
3	Place of excursion:- Agri Horticultural Society, Alipur Document Files: 0343/2023-2024	Date :- 10.1.2024 No of students enrolled:- 11 Semester/year:- 5th Sem (H)
4	Place of excursion:- Acharya Jagadish Chandra Bose Indian Botanic Garden (AJCBIBG) and Central National Herbarium (CNH) Document Files: 0343/2023-2024	Date :- 19.1.2024 No of students enrolled:- 11 Semester/year:- Sem 4 Hons and Sem 6 Gen
5	Place of excursion:- Narendrapur and adjoining areas Document Files: 0343/2023-24	Date :- 11.1.204 No of students enrolled:- 42 Semester/year: 3rd Sem (H), 1st Sem Hons. And MDC
6	Place of excursion:- Rabindra Sarobar and adjoining areas Document Files: 0343/2023-24	Date :- 13.1.2024 No of students enrolled:- 09 Semester/year:- 3rd Sem

MANGROVE FOREST SEEN IN BAKKHALI

ACKNOWLEDGEMENT

I would like to thank my teachers Dr. Abhisek Barua, Dr. Soma Chanda and Dr. Banbrata Das for conducting the excursion. I would like to thank our lab assistant Md. Mithun Bandhopadhyay for assisting us in the process. I would also like to thank Md. Narayan Barua and Mr. Tapan Kumar Mandal (FG) for assisting us in the area of the forest department. We got to learn an immense amount of information through these educational excursions. Lastly I would like to thank our principal mam Dr. Aparna De for allowing us to go on this excursion.

'PNEUMATOPHORES' OR 'BREATHING ROOTS OF MANGROVES

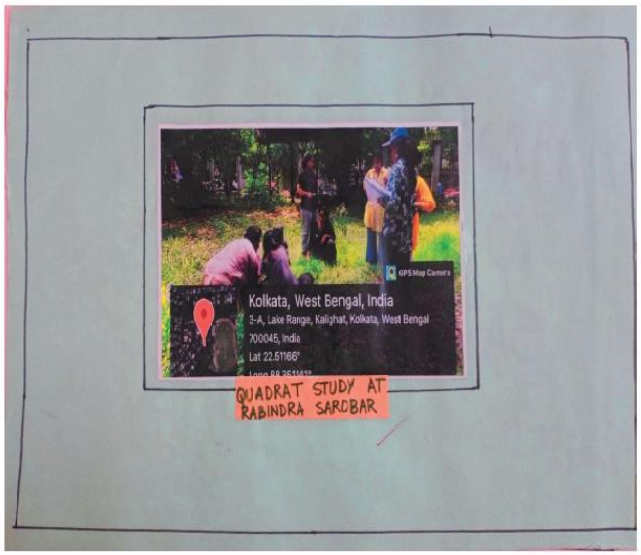
UTILITY OF EXCURSIONS

UTILITY OF EDUCATIONAL EXCURSION

1) Enhances knowledge and understanding: Educational trips provide students with a chance to learn about a particular place or subject in a more interactive and immersive way.
2) Promotes teamwork and social skills: Educational trips involve group activities and require students to work together which helps them to develop teamwork skills and social skills.
3) Encourages independent learning: Educational trips require students to be more self-directed and take ownership of their learning.
4) Promotes creativity and critical thinking: Educational trips provide students with a chance to think creatively and critically about the things they see and experience.
5) Provides a break from the monotony of classroom learning: Educational trips give students a break from the traditional classroom setting and allow them to learn in a more fun and interactive way.

SHORT EXCURSION TO RABINDRA SAROBAR

SHORT EXCURSION TO RABINDRA SAROBAR



TOUR DETAILS

DESTINATION : An excursion to Rabindra Sarovar and Surrounding areas

DATE : 15th May, 2023

TIME : 11:30 am

ESCORTED BY : Dr. Soma Chanda, Mr. Krinal Kanti Bhunia, Mr. Mithun Bandhopadhyay.

STUDENTS : 4th Semester Botany Honours (10 students)

PLACE OF ASSEMBLY : College

LATITUDE : 22.5121451°N

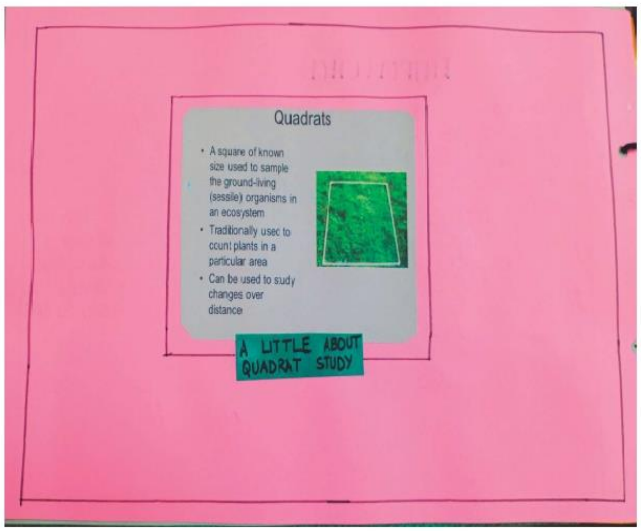
LONGITUDE : 88.3637°E

WEATHER CONDITION : Hot sunny day

TEMPERATURE : 41°C

INTRODUCTION

Rabindra Sarovar, also known as Dhakuria lake, the lungs of South Kolkata, which transports us to a green heaven amidst the grey that dominates us everyday, it is the first destination of bird spotting situated at Southern Avenue, almost 175 species of birds call this place their home. This 192 acre area which is recreational is a biodiversity hotspot in true sense lots of trees, some of them are century old, and some large water bodies have made this place a favourite place for different types of flora and fauna. This is also the most 'favourite' place for Kolkata birdwatchers and nature enthusiasts.



QUADRAT STUDY AT RABINDRA SAROVAR AND SURROUNDING AREAS AND BASED ON THAT CALCULATION OF:

1) Minimum size of the quadrat
2) Density
3) Frequency
4) Abundance

NUMBER OF QUADRATS IN ONE AREA

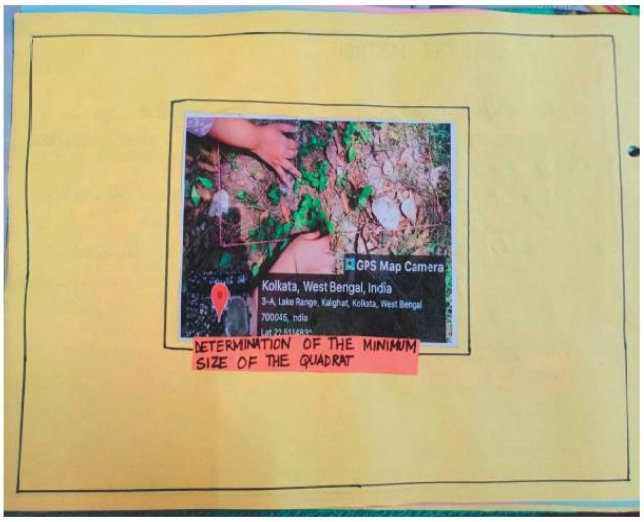
GROUP PHOTOGRAPH AT THE SITE OF QUADRAT

QUADRAT METHOD

In this method, sampling units in an area of definite size, may be circular, rectangular but most commonly square types. Again Quadrat may be of two types :-

i) List Quadrat - Which gives merely a list of species present. It includes all species botanically identified or otherwise.

ii) Count Quadrat - In which addition to listing number of individuals of each species is also counted.



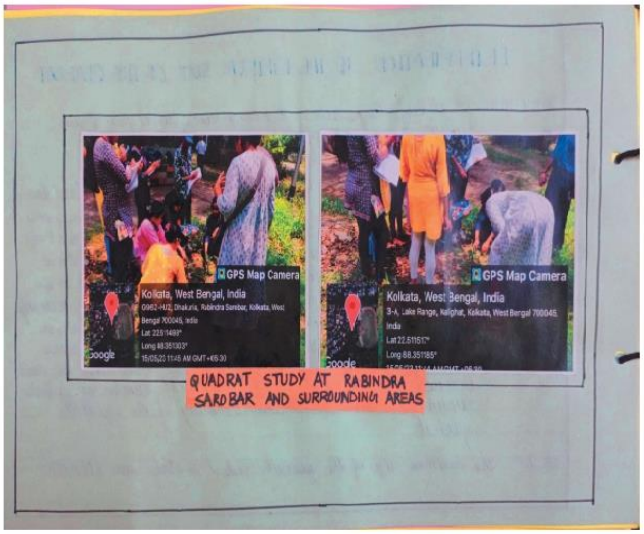
DETERMINATION OF THE MINIMUM SIZE OF THE QUADRAT

DETERMINATION OF THE MINIMUM SIZE OF THE QUADRAT

REQUIREMENTS: A piece of string, scale or measuring tape, several pieces of nails, small hammer, graph paper, note book and calculator.

PROCEDURE : With the help of nails and strings, a square was laid down on the field having the area 2ft x 2ft. The various species encountered in the area were noted. Then in the next step, the area was increased to 4ft x 2ft and the additional species were noted down again. In this manner, the area was increased by 2ft in each arm of the square successively. This was done by removing the nails and keeping one in constant position. Simultaneous species came across were recorded. This process was continued till there was no further increase of new species and the total number of species remain constant with the increasing of the size of the quadrat.

RESULT : The minimum size of the quadrat needed to study was 6ft x 6ft.



QUADRAT STUDY AT RABINDRA SAROBAR AND SURROUNDING AREAS

DENSITY, ABUNDANCE AND FREQUENCY

FREQUENCY : Frequency refers to the degree of dispersion in terms of percentage occurrence.

Frequency = Total number of quadrats where the species occurs x100 / Total number of quadrats studied

DENSITY : The numerical strength of a species in relation to a definite unit space is called density.

Density = Total number of individual of a species / Total number of sampling units quadrat studies

ABUNDANCE : The estimate number of individuals of a species per unit area is referred to as abundance.

Abundance = Total number of individuals of the species obtained / Total number of quadrats where species occurs

To calculate the frequency, density and abundance, five random quadrats have been laid down. On the basis of the collection, the above three parameters have been calculated.

LIST OF PLANTS THAT HAVE BEEN ENUMERATED

	NAME OF THE PLANT	FAMILY
1)	Polyalthia sp	Annonaceae
2)	Millettia pinnata	Fabaceae
3)	Putranjiva roxburghii	Putranjivaceae
4)	Bauhinia sp	Bignoniaceae
5)	Borassus sp	Palmae
6)	Ficus hispida	Moraceae
7)	Xanthium sp	Asteraceae
8)	Psidium guajava	Myrtaceae
9)	Sida cordifolia	Malvaceae
10)	Asparagus sp	Asparagaceae
11)	Azadirachta indica	Meliaceae
12)	Anthocephalus cadamba	Moraceae
13)	Phoenix sylvestris	Palmae
14)	Thuja sp	Cupressaceae
15)	Alstonia sp	Apocynaceae
16)	Ulteria ferrata	Fabaceae
17)	Citrus maxima	Rutaceae
18)	Pongamia pinnata	Fabaceae
19)	Cassia fistula	Caesalpiniaceae
20)	Bauhinia sp	Pontederiaceae
21)	Nelumbo nucifera	Nymphaeaceae
22)	Hydrilla sp	Alismataceae
23)	Heliotropium indica	Boraginaceae

LONG EXCURSION TO BAKKHALI

TOUR DETAILS

DESTINATION : Bakkhali and surrounding areas
DATE : 2nd June, 2023
TIME : 7am
ESCORTED BY : Dr. Soma Chanda, Dr. Abhishek Barua, Mr. Banikrata Das
STUDENTS : 19
PLACE OF ASSEMBLY: College
LATITUDE : 21.5631°N
LONGITUDE : 88.2596°E
WEATHER CONDITION : Sunny
TEMPERATURE : 43°C
AREA STUDIED : Bakkhali (Normal areas as well as mangrove forests)

MANGROVE FOREST AS SEEN IN THE AREA OF THE FOREST DEPARTMENT

INTRODUCTION

Bakkhali is a town within the jurisdiction of the Namkhana police station in South 24 Parganas. The entire district is situated in the Ganges Delta. The southern part of the delta has numerous channels and islands such as Henry island, Sagar Island, Frederick island and Fraserganj island. The coastal vegetation of Bakkhali - Fraserganj along the coastal stretches of West Bengal is dominated by Sesuvium equisetifolia, Mangroves (Avicennia Marina, Excoecaria agallocha and Phoenix paludosa) etc. Mangroves grow along the bank of Bakkhali Creek particularly in the muddy substratum inundated twice daily with the flood tide. Coexistence of Tamarina equisetifolia, mangroves and Tamarix gallica compose the floral assemblages in the Bakkhali - Fraserganj coastal areas.

GROUP PHOTOGRAPH AT THE ENTRANCE OF THE MANGROVE ARBORETUM

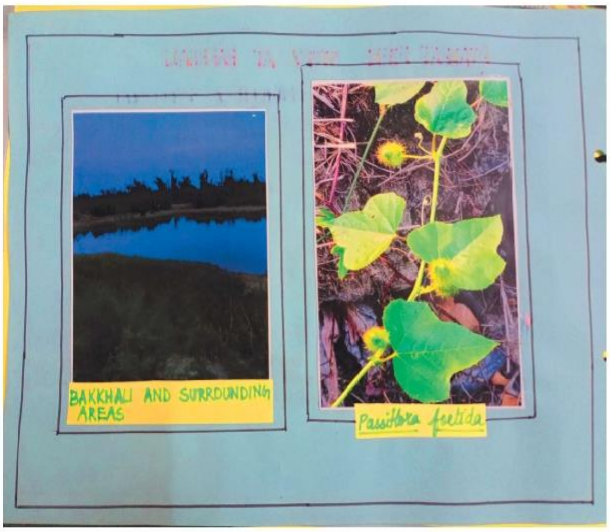
QUADRAT FIELD STUDY AT BAKKHALI

STUDY OF COMMUNITY STRUCTURE

Principle: Several similar strands of plants represent a community. The structure of communities can be studied both analytically and synthetically. Analytic characters are those which can be observed directly or measured directly or in each strand. To study analytic characters, Quadrat method is used.

Quadrat: In this method, sampling units is an area of definite size, may be circular, rectangular but most commonly square types. Again quadrat may be of two types:-

1) List Quadrat - which gives nearly a list of species present. It includes all species botanically identified or otherwise.
2) Count Quadrat - In which additional to listing number of individual plants of each species is also counted.



BAKKHALI AND SURROUNDING AREAS

DETERMINATION OF THE MINIMUM SIZE OF QUADRAT

REQUIREMENTS: 1) A piece of string 2) Scale or measuring tape 3) Several pieces of nails 4) Small hammer 5) Notebook

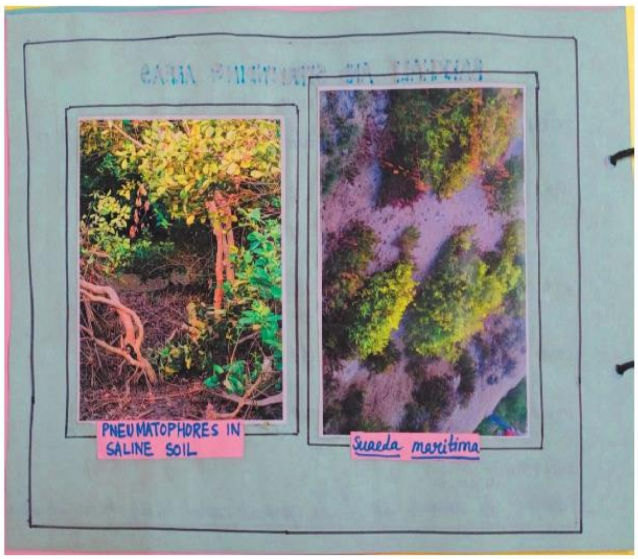
PROCEDURE: With the help of nails and strings, a square was laid down on the field having the area 20cm×20cm. The various species was noted down. Then in the next step, the area was increased to 40cm×40cm and the additional species came across were noted down again. In this manner, the area was increased by 20cm in each arm of the square respectively. This was done by removing the nails and keeping one in constant position, simultaneous species in the areas were recorded. This process was continued till there was no further increase of new species and the total species remain constant with the increase of the size of the quadrat. The minimum size of the quadrat was calculated based on the readings collected from the residential highland areas.

BAKKHALI AND SURROUNDING AREAS

TABLE FOR DETERMINING THE MINIMUM SIZE

QUADRAT SIZE	NAME OF FORMER QUADRAT SPECIES	NAME OF SPECIES OF NEW QUADRAT	NO. OF FORMER SPECIES	NO. OF NEW SPECIES	TOTAL NO. OF SPECIES
20cm x 20cm	-	1) Croton sp 2) Abutilon sp 3) Achyranthes sp 4) Poa sp	-	4	4
40cm x 40cm	1-4 same as above	5) Cassia sophera 6) Lantana camara	4	2	6
60cm x 60cm	1-6 same as earlier	7) Urena lobata	6	1	7
80cm x 80cm	1-7 same as earlier	No new species added	7	0	7
100cm x 100cm	1-7 same as earlier		7	0	7

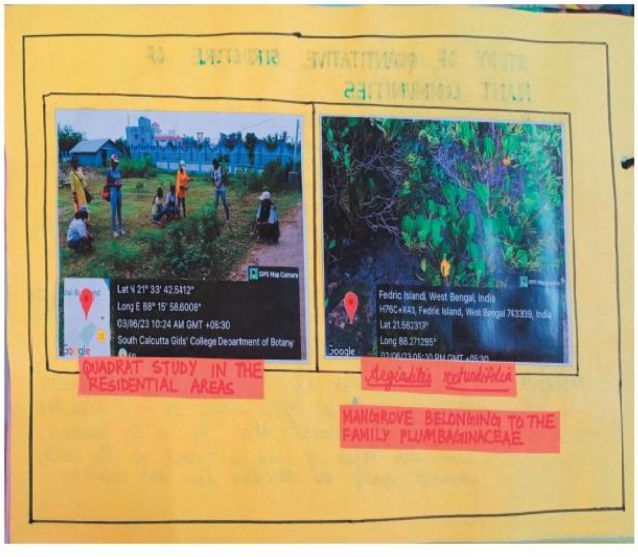
Therefore, the minimum size of the quadrat needed to study the area is 80cm×80cm



STUDY OF QUANTITATIVE STRUCTURE OF PLANT COMMUNITIES

PRINCIPLE : Co-existence and competitions both are affected directly by the number of individuals in the community. Therefore, it is essential to know the quantitative attributes of a community. Frequency, density, abundance, shadow and area coverage of species in the community importance value index, total estimates, index of association and index of similarity gives a clear picture of the structure of a particular community under study of quantitative terms in addition to qualitative one. The nature of a parameter as estimated from the sample, from the area under study which has to be accurate or close to the real value.

PROCEDURE : Random quadrats have been laid down in forested areas as well as higher lands used as residential areas. The measurement taken for random quadrats have been taken of 3m x 3m. Based on this data, frequency, density and abundance have been calculated.



FREQUENCY, DENSITY AND ABUNDANCE

FREQUENCY : Frequency refers to the degree of dispersion in terms of percentage occurrence

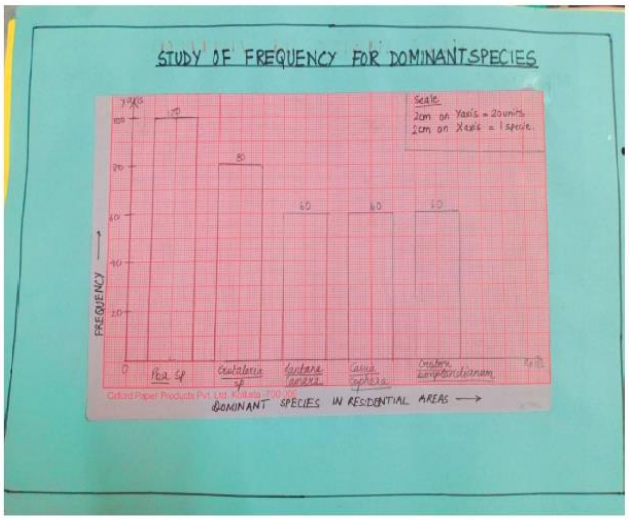
$$\text{Frequency} = \frac{\text{Total no of quadrats where the sp. occurs}}{\text{Total no of quadrats studied}} \times 100$$

DENSITY : The numerical strength of a species in relation to a definite unit space is called density

$$\text{Density} = \frac{\text{Total number of individuals of a species}}{\text{Total number of sampling units/quadrat studies}}$$

ABUNDANCE : The estimate number of individuals of a species per unit area is referred to as abundance.

$$\text{Abundance} = \frac{\text{Total number of individuals of the species obtained}}{\text{Total number of quadrats where species occurs.}}$$

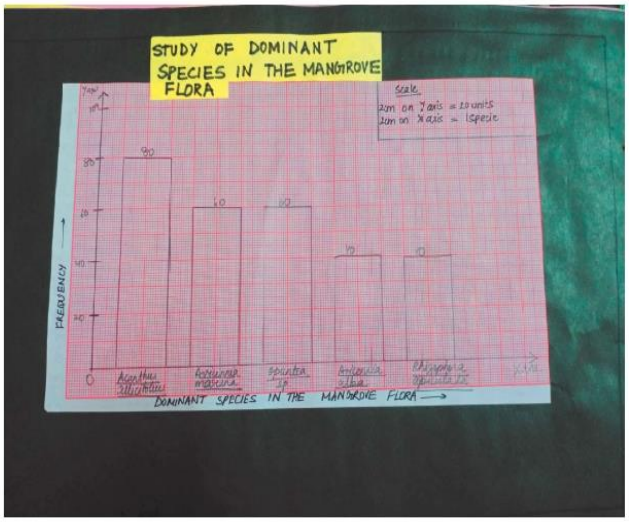


RANDOM QUADRATS STUDIED IN RESIDENTIAL AREAS

NUMBER OF INDIVIDUALS IN THE RESPECTIVE QUADRATS

Five random quadrats have been laid down in the residential areas of the size 3m x 3m

Sl no.	Name of plant species	Quad 1	Quad 2	Quad 3	Quad 4	Quad 5	Total no. of individuals	Total no. of quadrats in which the sp was found	No. of quadrats laid down	Frequency	Density	Abundance
1	Crotalaria sp.	2	3	0	1	5	11	4	5	80	2.2	2.75
2.	Poa sp.	10	10	5	3	5	33	5		100	6.6	6.6
3.	Achyranthes sp.	0	1	1	0	0	2	2		40	0.4	1
4.	Acacia sp.	0	1	0	0	3	4	2		40	0.8	2
5.	Lantana camara	2	0	2	5	0	9	3		60	1.8	3
6.	Cassia sophera	3	0	2	2	0	7	3		60	1.4	2.33
7.	Achyranthes sp.	1	0	0	1	0	2	2		40	0.4	1
8.	Urena lobata	2	0	0	1	0	3	2		40	0.6	1.5
9.	Vitis sp.	0	0	0	0	2	2	1		20	0.4	2
10.	Abutilon sp.	3	0	0	0	0	3	1		20	0.6	3
11.	Croton bonplandianum	3	0	0	2	3	8	3		60	1.6	2.67



RANDOM QUADRATS STUDIED IN FORESTED AREAS

NUMBER OF INDIVIDUALS IN THE RESPECTIVE QUADRATS

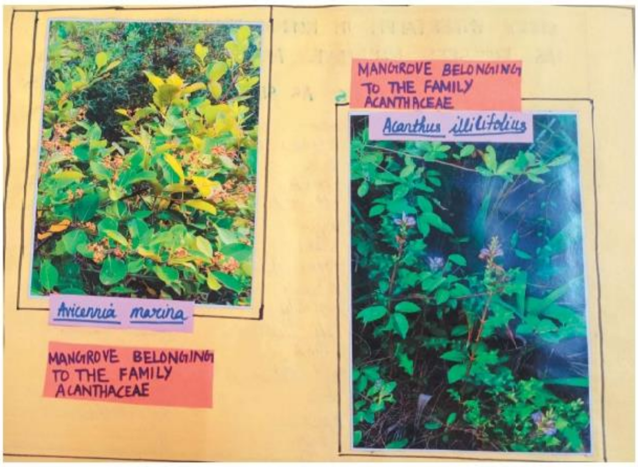
Five random quadrats have been laid down in the forested areas (mangrove areas) of size 3m x 3m.

Sl no.	Name of plant species	Quadrat I	Quad. 2	Quad. 3	Quad 4.	Quad 5.	Total no. of individuals	Total no. of quadrats in which the sp was found	No. of quadrats laid down	Frequency	Density	Abundance
1.	Avicennia marina	3	0	1	2	0	6	3	5	60	1.2	2
2.	Avicennia alba	0	5	0	0	1	6	2		40	1.2	3
3.	Sporobolus sp.	1	0	0	2	1	4	3		60	0.8	1.33
4.	Acanthus ilicifolius	2	2	0	1	2	7	4		80	1.4	1.75
5.	Phoenix paludosa	1	0	0	0	0	1	1		20	0.2	1
6.	Rhizophora apiculata	0	1	1	0	0	2	2		40	0.4	1
7.	Poa sp.	0	2	0	0	0	2	1		20	0.4	2
8.	Bruguiera gymnorhiza	0	0	2	1	0	3	2		40	0.6	1.5
9.	Nipa fruticans	0	0	1	0	0	1	1		20	0.2	1
10.	Kelia sp.	0	0	0	0	2	2	1		20	0.4	2

STUDY UNDERTAKEN IN NORMAL RESIDENTIAL AS WELL AS FORESTED MANGROVE AREAS

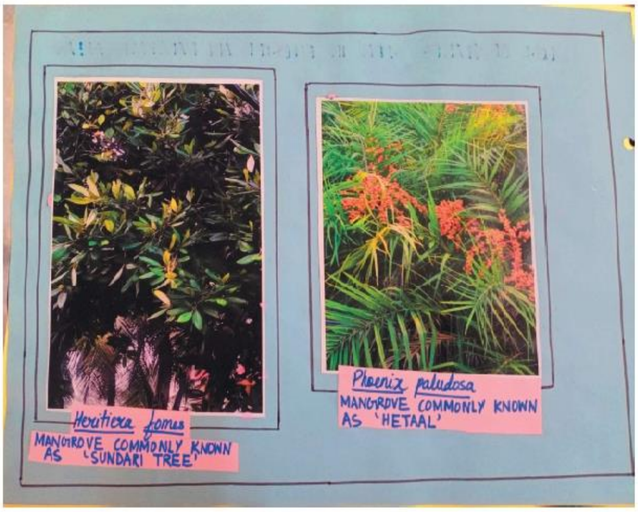
LIST OF PLANTS AS SEEN IN RESIDENTIAL AREAS:

	Scientific name	Common name	Family
17)	Alternanthera sp.	Malancha shak	Amaranthaceae
25)	Acacia nilotica	Babool	Leguminosae
8)	Solanum nigrum	Kakmachi	Solanaceae
4)	Cassia sophera	Kalkesunda	Caesalpinioideae
5)	Phoenix sylvestris	Khejur	Palmae
6)	Phyllanthus sp.	Amloki	Phyllanthaceae
7)	Bacopa sp.	Brahmi shak	Plantaginaceae
8)	Mesuphe indica	Muktojhuri	Euphorbiaceae
9)	Croton bonplandianus	Bon tulsi	Euphorbiaceae
10)	Aerva aspera	Chaff flower	Amaranthaceae
11)	Punica granatum	Bedana	Lythraceae
12)	Solanum sp.	Lal Kalmi	Solanaceae
13)	Abutilon indicum	Pokari	Malvaceae
14)	Aerva lanata	Chaya	Amaranthaceae
15)	Michania sp.	Chhimpa	Asteraceae
16)	Datura metel	Dhutura	Solanaceae



LIST OF PLANTS SEEN IN FORESTED AND MANGROVE AREAS

Scientific name	Common name	Family
1) Acacia nilotica	Babool	Leguminosae
2) Avicennia alba	Kati baine	Acanthaceae
3) Avicennia marina	Peara baine	Acanthaceae
4) Azadirachta sp	Neem	Meliaceae
5) Melia sp	Ghor neem	Meliaceae
6) Acanthus illicifolius	Harkuchkanta Kontki	Acanthaceae
7) Nipa fruticans	Golpata	Palmae
8) Bruguiera gymnorrhiza	Kankra	Rhizophoraceae
9) Vitis sp	Angur	Vitaceae
10) Rhizophora candelaria	Gorjon	Rhizophoraceae
11) Desmodium sp	Chalani laifeni	Fabaceae
12) Heritiera fomes	Sundari	Malvaceae
13) Pongamia pinnata	Karanja	Leguminosae
14) Casuarina equisetifolia	Belati Jhau	Casuarinaceae
15) Tamarix dioica	Nona Jhau	Tamaricaceae
16) Phoenix paludosa	Hetaal	Palmae
17) Xylocarpus granatum	Dhundhul	Meliaceae
18) Avicennia officinalis	Karunjo Baine	Acanthaceae
19) Aegilitis rotundifolia	Toral	Plumbaginaceae
20) Aegiceras corniculatum	Khalsi / Kolshe	Primulaceae
21) Ceriops tagal	Moth goran	Rhizophoraceae



Scientific name	Common name	Family
22. Ceriops decandra	Mondira Goran	Rhizophoraceae
23. Acacia auriculiformis	Akashmoni	Leguminosae
24. Butea monosperma	Polash	Fabaceae
25. Manilkara zapota	Chikoo	Sapotaceae
26. Holarrhena antidysenterica	Khurchi	Apocynaceae
27. Suaeda maritima	Jeere shaak	Chenopodiaceae
28. Pluchea indica	Indian camphorweed	Asteraceae

RESOURCE PERSON: Mr. Narayan Parua

ASSISTING PERSON: Mr. Tapan Kumar Mandal (FG)

BEAT OFFICER – Mr. Abu Zafar Molla

CONCLUSION

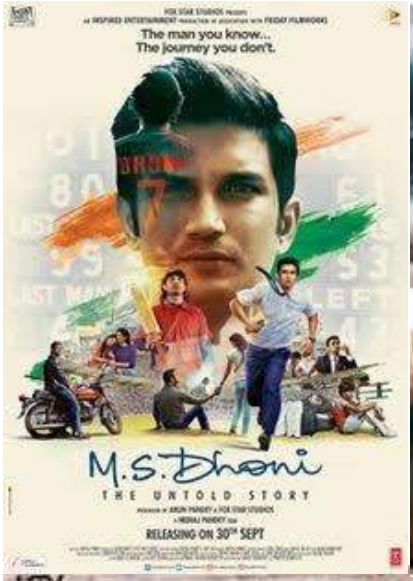
Random quadrats have been laid down in upland residential areas as well as low lying mangrove forest areas. According to the data, species dominant in both the areas are as follows:-

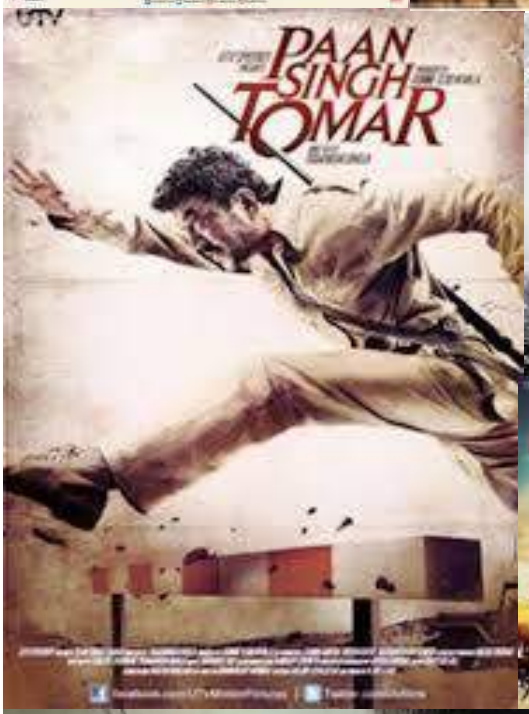
- Highland residential areas – 2m above MSL – 1) Poa sp, 2) Crotalaria sp, 3) Lantana camara, 4) Cassia sophera and 5) Croton bonplandianum
- Low lying forested mangrove areas – sea level – 1) Acanthus illicifolius, 2) Opuntia sp, 3) Avicennia alba, 4) Avicennia marina, 5) Rhizophora sp.

The vegetation found in the upland residential areas is similar to the vegetation of a lateritic or tropical area. Their morphology and adaptive features have been studied in the course of documentation. The soil also contains salt. The soil is whitish in colour due to high salinity. After the phytogeographical study, we noticed the different variations in phytogeographical study in coastal mangrove vegetation.

16/06/2023

RISE OF BIOPIC MOVIES





UNIVERSITY OF CALCUTTA

B.A. SEMESTER VI HONOURS EXAMINATION 2024

(UNDER CBCS)

CU REG NO: 035-1211-0065-21

CU ROLLNO: 212035-11-0038

SUBJECT: JOURNALISM AND MASS COMMUNICATION

PAPER: DSEA-3

TOPIC:

RISE OF BIOPIC MOVIES

CONTENT

CHAPTER 1

INTRODUCTION

Biopic movies, short for biographical pictures, are cinematic works that depict the life story of a real person, often a well-known figure from history or contemporary society. These films aim to authentically portray the individual's experiences, challenges, achievements, and significant moments in their life journey. Biopics provide insight into the personal and professional aspects of their subject, offering audiences a glimpse into their world.

In recent years, Bollywood has witnessed a significant surge in the production and popularity of biographical films or biopics. These cinematic endeavours delve into the lives of real-life personalities, ranging from historical figures to contemporary icons across various fields such as sports, politics, entertainment, and entrepreneurship. Offering audiences, a glimpse into the extraordinary lives and achievements of these individuals, biopics have become a compelling genre in Indian cinema, resonating with viewers who are drawn to stories of resilience, triumph, and human drama. This rise reflects a growing appetite for narratives inspired by true events and personalities, shaping the cultural landscape of Bollywood.

Different genres of biopic movies.

Bollywood has explored various genres in biopic movies, showcasing the lives of real people from different walks of life. Here are some examples:

Historical Biopics: These depict the lives of historical figures. Example: "Bajirao Mastani" (2015) based on the Maratha Peshwa Bajirao I.

Sports Biopics: These focus on the lives of sports personalities. Example: M.S. Dhoni the untold story(2016) based on the life of the former captain of the Indian national cricket team, Mahendra Singh Dhoni.

Political Biopics: These centre around political leaders and their journeys. Example: "Thackeray" (2019) based on the life of Bal Thackeray, a prominent Indian politician.

Music Biopics: These showcase the lives of musicians and singers. Example: "Sanju" (2018) based on the controversial life of Bollywood actor Sanjay Dutt.

Literary Biopics: These portray the lives of authors and poets. Example: "Manto" (2018) based on the life of the Urdu author Saadat Hasan Manto.

Social Activist Biopics: These highlight the work of social activists and reformers. Example: "Pad Man" (2018) based on the life of Arunachalam Meganathan, who invented low-cost sanitary pads.

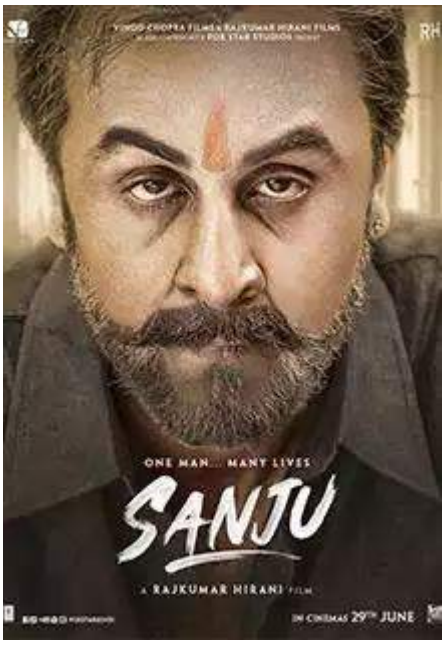
These are just a few examples, but Bollywood continues to explore various genres within the biopic genre, offering audiences a diverse range of stories to experience.

▸ Critical Acclaim and Awards: Biopics have been well-received by critics and have also garnered awards and accolades, further establishing the genre as a viable option for filmmakers looking to create impactful and memorable cinema.

While the trend of biopics in Bollywood may seem more pronounced in recent years, it is part of a broader cinematic landscape that continues to evolve and adapt to changing audience preferences and industry dynamics.

CASE STUDY

SANJU:



"Sanju" (2018), directed by Rajkumar Hirani, is a significant case study in understanding the rise of biopic movies in contemporary Indian cinema. This film chronicles the tumultuous life of Bollywood actor Sanjay Dutt, encompassing his struggles with drug addiction, legal battles, and his journey towards redemption. As biopics have gained popularity, they offer a blend of entertainment and realism, providing audiences with a deeper understanding of public figures.

The film stands out for its portrayal of Sanjay Dutt's life, skilfully weaving together various facets of his personality and public image. "Sanju" was not just a commercial success but also served as a vehicle for reshaping Dutt's public persona. The narrative, largely sympathetic, focused on his vulnerabilities and the external influences that shaped his troubled life. By highlighting his resilience and humanizing his flaws, the movie aimed to elicit empathy from the audience.

Critically, "Sanju" can be seen as an exercise in image management. It downplayed certain controversies and offered justifications for Dutt's actions, framing him as a victim of circumstances rather than solely responsible for his misdeeds. This approach sparked debates about the ethical responsibilities of biopics in balancing truth with cinematic liberties. Overall, "Sanju" exemplifies how biopics can be leveraged not only to entertain but also to rehabilitate and redefine a celebrity's legacy.

DANGAL:

"Dangal," directed by Nitesh Tiwari and released in 2016, serves as an exemplary case study for understanding the rise of biopic movies in Indian cinema and their role in challenging societal norms. The film chronicles the real-life story of Mahavir Singh Phogat, a former wrestler who trains his daughters Geeta and Babita Phogat to become world-class wrestlers, defying societal expectations in a conservative Indian village.

CHAPTER 7

CONCLUSION

The surge in biopic movies reflects a growing audience fascination with real-life stories and historical figures. These films offer more than entertainment; they provide insight into complex lives and pivotal moments, bridging the gap between history and popular culture. By dramatizing real events, biopics humanize icons, making their stories accessible and relatable, which resonates with contemporary viewers seeking inspiration or understanding.

Moreover, biopics often spark dialogue about accuracy and representation, prompting discussions on historical revisionism and artistic license. They also showcase the evolving nature of storytelling, where filmmakers balance factual representation with narrative engagement.

The rise of biopics highlights a cultural shift towards valuing personal narratives and historical context, enriching the cinematic landscape. As this genre continues to evolve, it not only entertains but also educates, encouraging audiences to explore the complexities of human experience and history.

Hallyu - 한류

Influence of K-Wave on Indian Youth

B.A. Semester VI Honours Examination 2024 Under CBCS

Roll no.: 212035-11-0147

Registration no.: 035-1212-0048-21

Subject : DSE-A

Topic : Influence of K-wave on Indian youth

Contents

Chapter 1- Introduction

The Korean wave, also known as Hallyu, has had a profound influence on Indian youth in recent years. The phenomenon of Korean pop culture, encompassing music, dramas, and fashion, has captivated young Indians, leading to a significant shift in their preferences and cultural landscape. This cultural infiltration is driven by various factors, including the quality of Korean actors, beauty standards, and fashion trends, which are perceived as fresh and exciting compared to traditional Indian entertainment.

The increasing popularity of Korean media among Indian youth highlights the impact of globalization and the information revolution on cultural preferences. The easy access to Korean content through social media, YouTube, OTT platforms, and streaming services like Netflix and Amazon Prime Video has played a crucial role in this trend. Notably, K-pop groups like BTS, StrayKids, Blackpink, Twice have gained immense success worldwide. The popularity of K-dramas, movies, and K-pop music has surged, especially among Gen Z and millennials, who are drawn to the captivating choreography, engaging plots, and charismatic performances.

The COVID-19 pandemic has further accelerated the growth of the Korean wave in India, K-dramas like "It's Okay Not to Be Okay" and "All Of Us Are Dead" captivating Indian viewers, especially during the pandemic, as people turned to entertainment for solace and distraction, leading to a surge in demand for Korean beauty products, food items, and language learning platforms.

Apart from the immense popularity of K-dramas and K-pop, Korean beauty, fashion, and food have also become increasingly popular among Indians. The cultural influence of South Korea has been profound, with many Indians embracing various aspects of Korean culture. Korean food, which was initially unfamiliar to many Indians, has also gained immense popularity. The exposure to Korean cuisine through K-dramas and K-pop has led to a significant increase in the demand for Korean dishes such as kimchi, tteokbokki, jjajanmeyon, gimbap.

The influence of Korean culture on India extends far beyond K-dramas and K-pop. The popularity of Korean beauty, fashion, and food has been significant, with many Indians embracing these aspects of Korean culture. The cultural exchange between the two countries has led to a deeper understanding and appreciation of each other's customs and traditions, paving the way for further growth and collaboration in the future.

Among all the other groups, the three major groups-BTS, Blackpink and Twice became international sensations. It all started with BTS during 2017-2018 when they released their album ‘Love Yourself’ which became one of the highest-grossing and most loved albums. The most popular song was ‘Fake Love’, one of the most streamed songs on Youtube and other online sites.

There is a reason behind its popularity in India. BTS and other K-pop groups like Twice promoted the idea of self-love and motivation to the fans and Blackpink promoted the idea of Savageness and being different like ‘Pretty savage’, ‘How You Like That’, ‘Ddu-Du-Ddu-Du’ which became the first music video of a k-pop group toreach 1 billion views on Youtube . These groups believed in spreading the importance of loving yourself rather than someone else. BTS believed in spreading the idea of mental health with songs like ‘Blue & Grey’ , ‘Answer: Love Myself ’, ’00:00 (Zero O’clock)’. They, in fact, dedicated a song for students as well like ‘Pied Piper’ ‘No More Dream’ .

Fashion and Beauty Standards

The Korean Wave, or Hallyu, has had a significant impact on the fashion and beauty standards of Indian youth. The allure of Korean fashion, known as K-fashion, has enchanted Indian youth with its blend of tradition and trendiness. Korean beauty standards and products have also gained popularity among Indian youth, influencing their grooming and self-care practices. K-beauty has become

dishes that cater to the evolving taste preferences of consumers. Korean cuisine is often perceived as healthy due to its emphasis on fresh vegetables, lean proteins, and fermented foods. This aligns well with the growing health-conscious trend in India, contributing to the appeal of Korean dishes. The influence of social media, particularly platforms like Instagram and YouTube, has played a significant role in spreading awareness about Korean food trends. Food bloggers and influencers often share their experiences with Korean cuisine, showcasing its visual appeal and distinct flavours. With an increase in awareness and access to Korean ingredients, more people in India have been experimenting with cooking Korean dishes at home. Online platforms and recipe websites have facilitated the sharing of recipes and cooking tips, contributing to the DIY trend.

Case Study

Korean speciality formats are leveraging this opportunity. Korikart.com – an India-based online marketplace that specialises in Korean products and brands has a wide array of Korean ingredients, condiments, and instant noodles. Korean speciality Food service outlets such as Daily Sushi in Bengaluru, Hahn's Kitchen in Gurugram etc. have gained prominence in India. Even McDonald's introduced a BTS Meal in 2021 across multiple channels in collaboration with South Korean Boyband BTS in South and West India.

BTS Meal

BTS Meal Advertisement

According to the Indian Ministry of Commerce and Industry, after the 2020 shutdown, there has been a significant rise in the consumption of Korean food in India. The volume of just Korean noodles increased by 162% in 2020 and by 178.0% in 2021.

The popularity of Korean cuisine in India is being fuelled by the growth of Korean freestanding restaurants in places like Chennai, New Delhi, Kolkata, Bengaluru, and Mumbai. According to the owners of the Korean specialty cuisine restaurant Sun and Moon (Mumbai), "The business has increased significantly in recent years due to the Hayllu wave. Because our

Chapter 7 – Conclusion

The key points regarding the Influence of the Korean wave (K-wave) on Indian youth, based on this research paper, are: The Korean wave, encompassing K-pop, K-dramas, K-fashion, Korean culture, and Korean food has gained immense popularity among Indian youth, especially Gen-Z and millennials. This cultural phenomenon has had a significant impact on Indian youth in the following ways:

The Korean wave has helped break down gender stereotypes and challenge heteronormative societal expectations. K-pop groups and artists, through their music and personas, are redefining traditional notions of masculinity and femininity, which is positively influencing Indian youth's perceptions of gender.

The exposure to Korean culture, through platforms like social media, has led to a growing interest among Indian youth in learning the Korean language, consuming Korean media, and exploring Korean food, fashion, and beauty products. This has fostered cultural exchange and solidarity between India and South Korea.

The appeal of the Korean wave is attributed to factors like the high production quality, attractive actors, and the relatability of Korean dramas and films. This has made Korean content more accessible and engaging for Indian youth compared to traditional Indian entertainment.

While the Korean wave has been embraced by Indian youth, it is important to ensure that this cultural assimilation is approached thoughtfully, without compromising one's own cultural identity. The experience of Korea shows that it is possible to maintain cultural individuality while adapting to global influences.

In conclusion, the Korean wave has had a significant impact on Indian youth, influencing their perceptions, preferences, and cultural exchange. However, this cultural infiltration should be navigated carefully to achieve positive change while preserving the unique identity of Indian culture.

A SOCIOLOGICAL ANALYSIS ON THE USAGE OF OTT (OVER THE TOP) PLATFORMS AMONG THE YOUTHS OF HOWRAH AMID PRE AND POST COVID-19 PANDEMIC.

NAME – SNEHA MUKHERJEE

C.U. ROLL NUMBER – 202035-11-0029

C.U. REGISTRATION NUMBER – 035-1211-0044-20

SESSION – 2020-2023

DEPARTMENT OF SOCIOLOGY

SOUTH CALCUTTA GIRLS' COLLEGE

UNIVERSITY OF CALCUTTA

A SOCIOLOGICAL ANALYSIS ON THE USAGE OF OTT (OVER THE TOP) PLATFORMS AMONG THE YOUTHS OF HOWRAH AMID PRE AND POST COVID-19 PANDEMIC.

NAME – SNEHA MUKHERJEE

B.A. SOCIOLOGY HONOURS THIRD YEAR

C.U. ROLL NUMBER – 202035-11-0029

C.U. REGISTRATION NUMBER – 035-1211-0044-20

SESSION – 2020-2023

GUIDED BY

DR. PRATAP KR. GHORAI

STATE AIDED COLLEGE TEACHER -1

DEPARTMENT OF SOCIOLOGY

SOUTH CALCUTTA GIRLS' COLLEGE

UNIVERSITY OF CALCUTTA

The project is completed in partial fulfilment of B.A SEMESTER-VI, Sociology Examination, 2023, under Choice Based Credit System (CBCS) of University of Calcutta.

DECLARATION

This is to certify that the research titled **"A SOCIOLOGICAL ANALYSIS ON THE USAGE OF OTT (OVER THE TOP) PLATFORMS AMONG THE YOUTHS OF HOWRAH AMID PRE AND POST COVID-19 PANDEMIC."**, submitted by Sneha Mukherjee of South Calcutta Girls' College in the partial fulfilment for the degree of Bachelor of Arts in Sociology, under the University of Calcutta, has been done under my (Dr. Pratap Kr. Ghorai) supervision and guidance.

I, Sneha Mukherjee have not submitted this dissertation to any other university for the award of any degree or diploma. This work has not been copied from any other researcher and is my original work.

Sneha Mukherjee 25.7.23

Scanned signature of the student

Dr. Pratap Kumar Ghorai

25-7-23

scanned signature of the supervisor

Dept. of Sociology
South Calcutta Girls' College

01/08/23

ACKNOWLEDGEMENT

I would like to acknowledge Dr. Pratap Kumar Ghorai, state aided college teacher, Department of Sociology, of South Calcutta Girls' College for his constant guidance and support. I earnestly acknowledge the guidance and support provided by Dr. Ankita Mookherjee, Mrs. Ipshita Chakraborty, Mrs. Swarnali Debnath and Mrs. Sudeepa Dey, Professors of the Department of Sociology, whose contributions is incomparable.

I would also like to thank the Principal of our College, Dr. Aparna De, who had been kind enough to grant permission to do the project. I am sincerely thankful to my respondents without whose support and cooperation the dissertation would not have been possible.

SNEHA MUKHERJEE

TABLE OF CONTENTS

ANIMAL BEHAVIOUR

behavior changes to achieve survival

Registration number:035-1211-0216-20
Roll number:203035-11-0021
Semester:6
Examination:Bsc Semester 6 (Honours),2023
Under CBCS

UNIVERSITY OF CALCUTTA

(UNDER CBCS)

REGISTRATION NUMBER:035-1211-0216-20

ROLL NUMBER:203035-11-0021

SEMESTER:6

SUBJECT: ZOOLOGY (HONOURS)

PAPER:DSEB-6-1

EXAMINATION:BSC SEMESTER 6(HONOURS).2023

UNDER CBCS

PROJECT: STUDY OF ANIMAL BEHAVIOUR

SOUTH CALCUTTA GIRLS' COLLEGE

(Department of Zoology)

Certificate of participation

This is to certify that
Registration number:035-1211-0216-20
Roll number:203035-11-0021
has participated in the departmental excursion organised at Harinalaya, Eco park, Kolkata by the department of zoology and prepared her report herself.

Department of Zoology

We went to Harinalaya,Eco park to study animal behaviour.

Eating

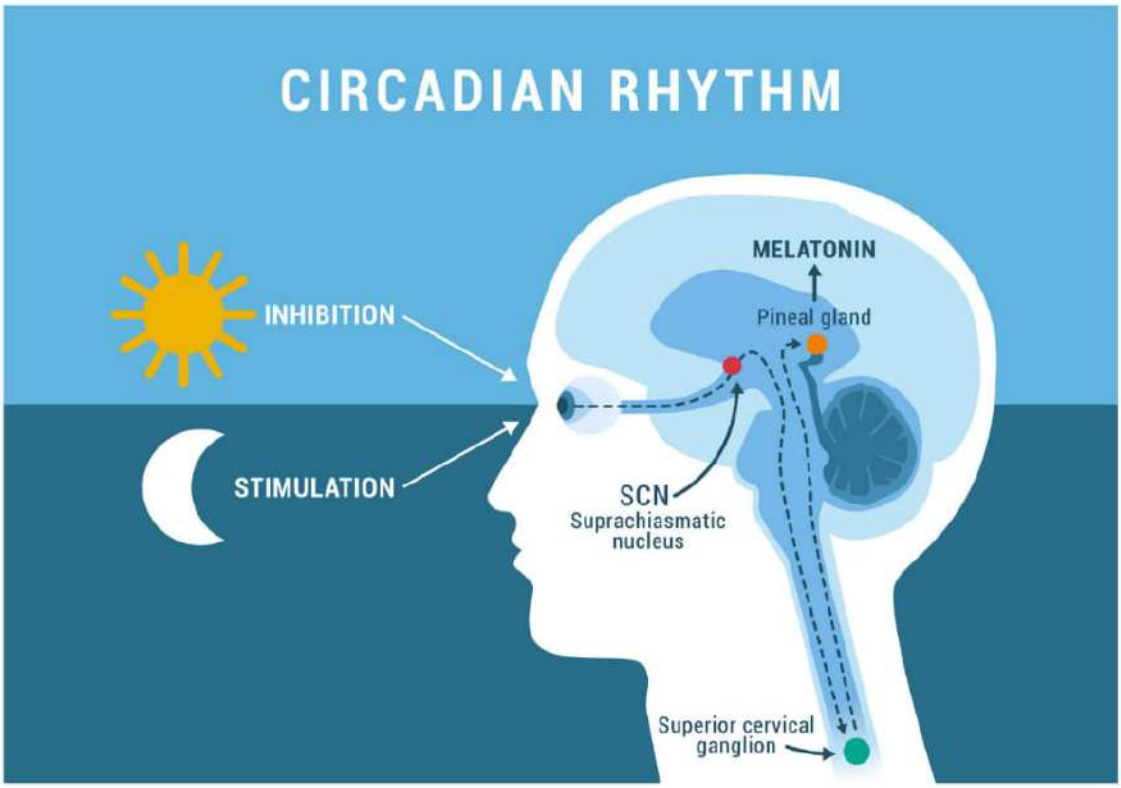
Drinking

Conclusion

We went on an excursion to Harinalaya for studying animal behaviour during summer time. We started our study at 10:00 am in morning. Due to the harsh weather condition and scorching heat of sun, mostly solitary activity was noticed among the Barking deers. Initially they were drinking water and we're resting. After sometime at around 11:30 am they woke up to eat food. Then both of them (male & female) has contact with each other & were roving. The male was grooming himself. At around 1pm they went to sleep.

At aound 3:45pm,as the sunlight started dimming away, it was noticed that the deers slowly started their activity.

CIRCADIAN RHYTHM



REGISTRATION NUMBER:035-1211-0216-20

ROLL NUMBER:203035-11-0021

SESSION:2020-2023

EXAMINATION: BSC SEMESTER 6(HONOURS),2023

UNDER CBCS

UNIVERSITY OF CALCUTTA

(UNDER CBCS)

REGISTRATION NUMBER:035-1211-0216-20

ROLL NUMBER:203035-11-0021

EXAMINATION:BSC SEMESTER 6(HONOURS),2023

UNDER CBCS

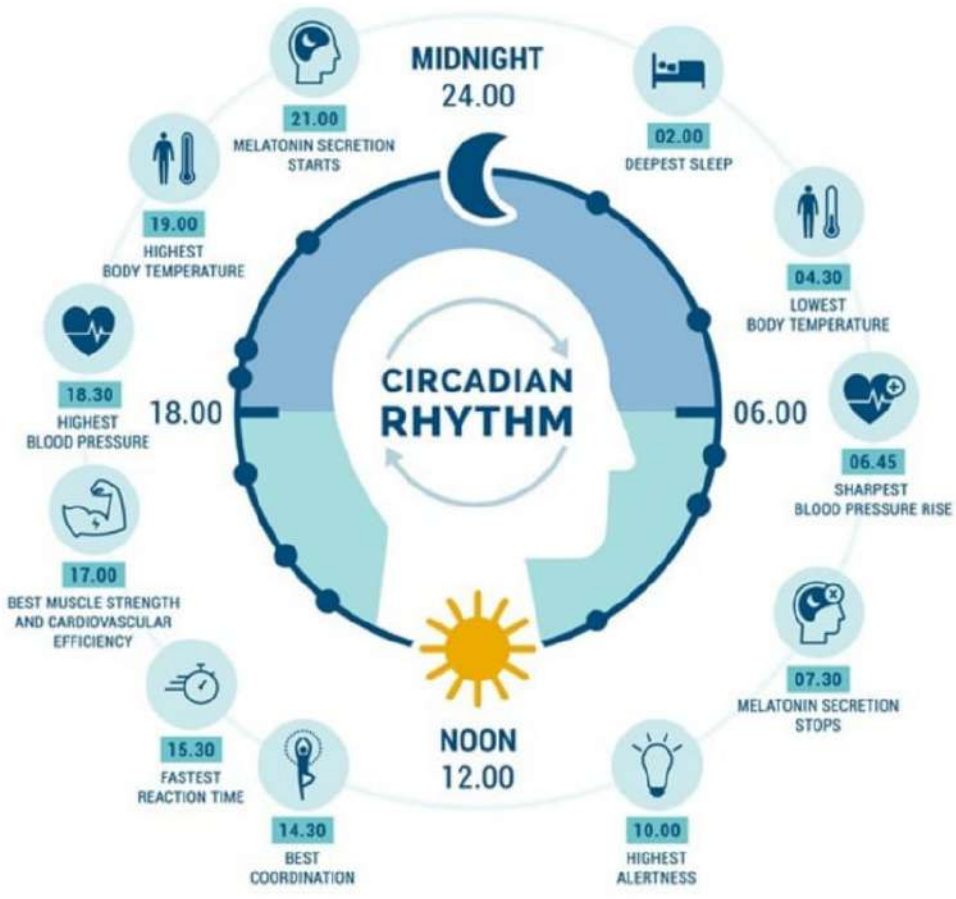
Project: Circadian Rhythm

INDEX

CIRCADIAN RHYTHM

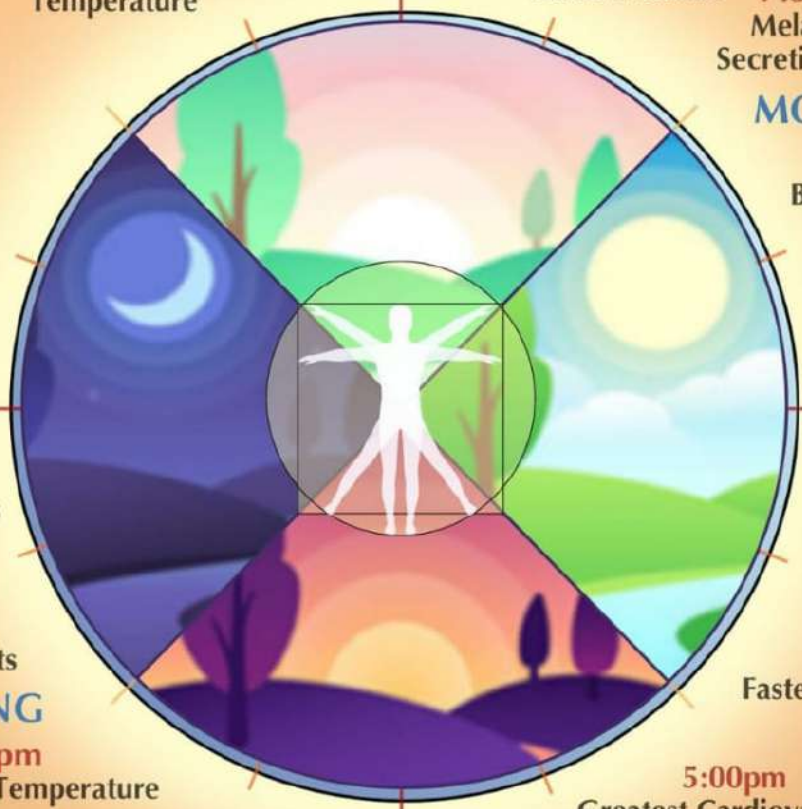
This rhythm is matched with the 24 hour cycle of day and night.

We ourselves provide a good example, as we tend to wake up almost at the same time everyday in the morning and start feeling sleepy at night. Such circadian rhythm are exhibited by diurnal as well as nocturnal animals.



CIRCADIAN RHYTHMS

THE BODY CLOCK



6:00am
SUNRISE

6.45am
Sharpest Rise in Blood Pressure

7.30am
Melatonin Secretion Stops

MORNING

8.30am
Bowel Movement Likely

10:00am
High Alertness

12:00
NOON

2.30pm
Best Coordination

3.30pm
Fastest Reaction Time

5:00pm
Greatest Cardiovascular Efficiency and Muscle Strength

6:00pm
SUNSET

6.30pm
Highest Blood Pressure

7.00pm
Highest Body Temperature

EVENING

9.00pm
Melatonin Secretion Starts

10.30pm
Bowel Movements Suppressed

12:00
MIDNIGHT

2.00am
Deepest Sleep

4.30am
Lowest Body Temperature

SEAN GASKIN

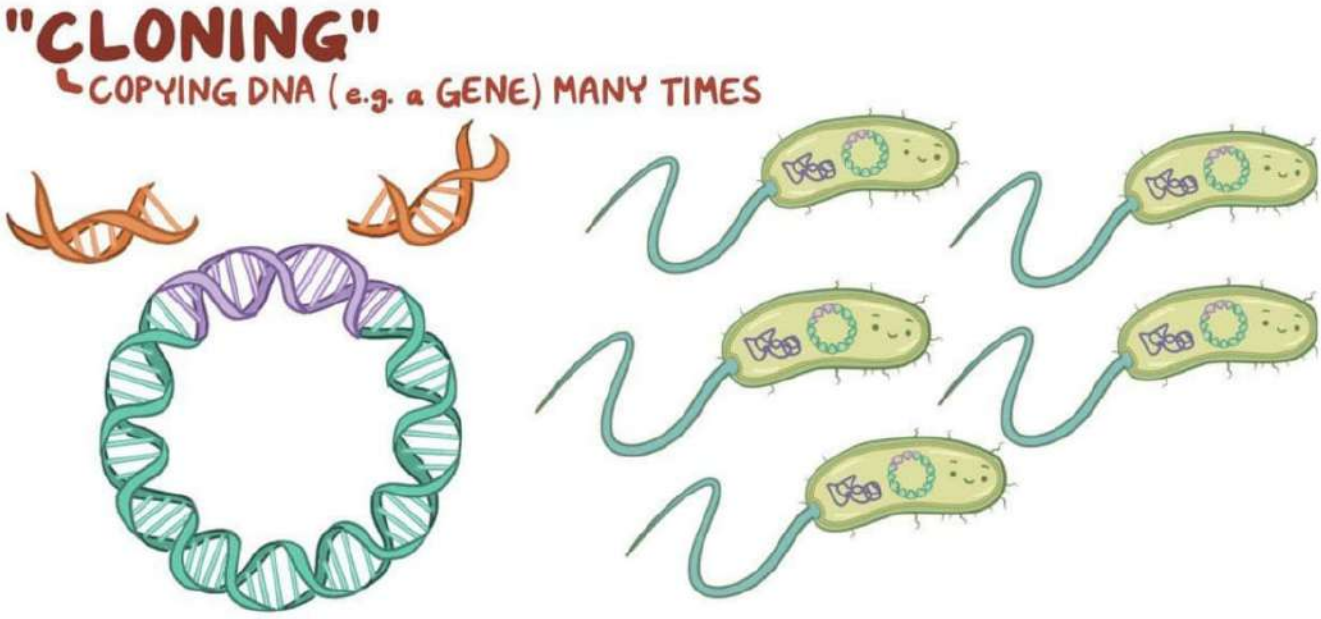
Conclusion

- Although environmental factors are universal events which are unrelated to human control but affect human's body and circadian rhythm. Other factors are manageable by human to prevent disturbance of circadian rhythm making physical disorders.

- Circadian rhythm is a biological clock that is built in our brain throughout the functionality of everyone's day and night processes within a 24-hour clock frame and it devises our body to function in a healthy way of daily routines. Thus, the circadian rhythm becomes a self-control system of human body to regulate our eating habits, activities and body functionality. In this context, our daily (24-hour) functionality should have concern over food, physical environment including lightings, exercises, work habits, sleeping and other activities concern. All in consideration and importantly, a mind clock should be set with routinised daily functionality for a healthy life.

In general, circadian rhythms in activity (as a behavioral circadian marker), melatonin (as an indirect circadian marker), and peripheral clock gene expression (as a direct circadian marker) were slightly altered, but all of the subjects maintained circadian patterns in those studied parameters. Light-sensitive melatonin production was delayed by late-night light exposure; late-night illumination had the same effect on activity pattern, but the rhythm stayed consistent. A similar effect was observed in the peripheral clock genes' expression; however, the rhythm was more pronounced. The delay in circadian clock-driven parameters such as melatonin production and the sleep/wake rhythm might result from the late night light exposure .It can be hypothesized that the clock stayed fully synchronized under the conditions of the day.

CLONING



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PROJECT REPORT:ANIMAL CLONING

Acknowledgement

I would like to express my gratitude toward to my teachers Dr. Roni Sarkar, Dr. RajashriChakraborty, Dr. Sudipta Ghosh & Mrs Sucheta Bose for their valuable guidance and nonstop support during this project.

I am grateful to our principal, Dr. A. De as well for providing me with the beautiful opportunity to work on this Project.

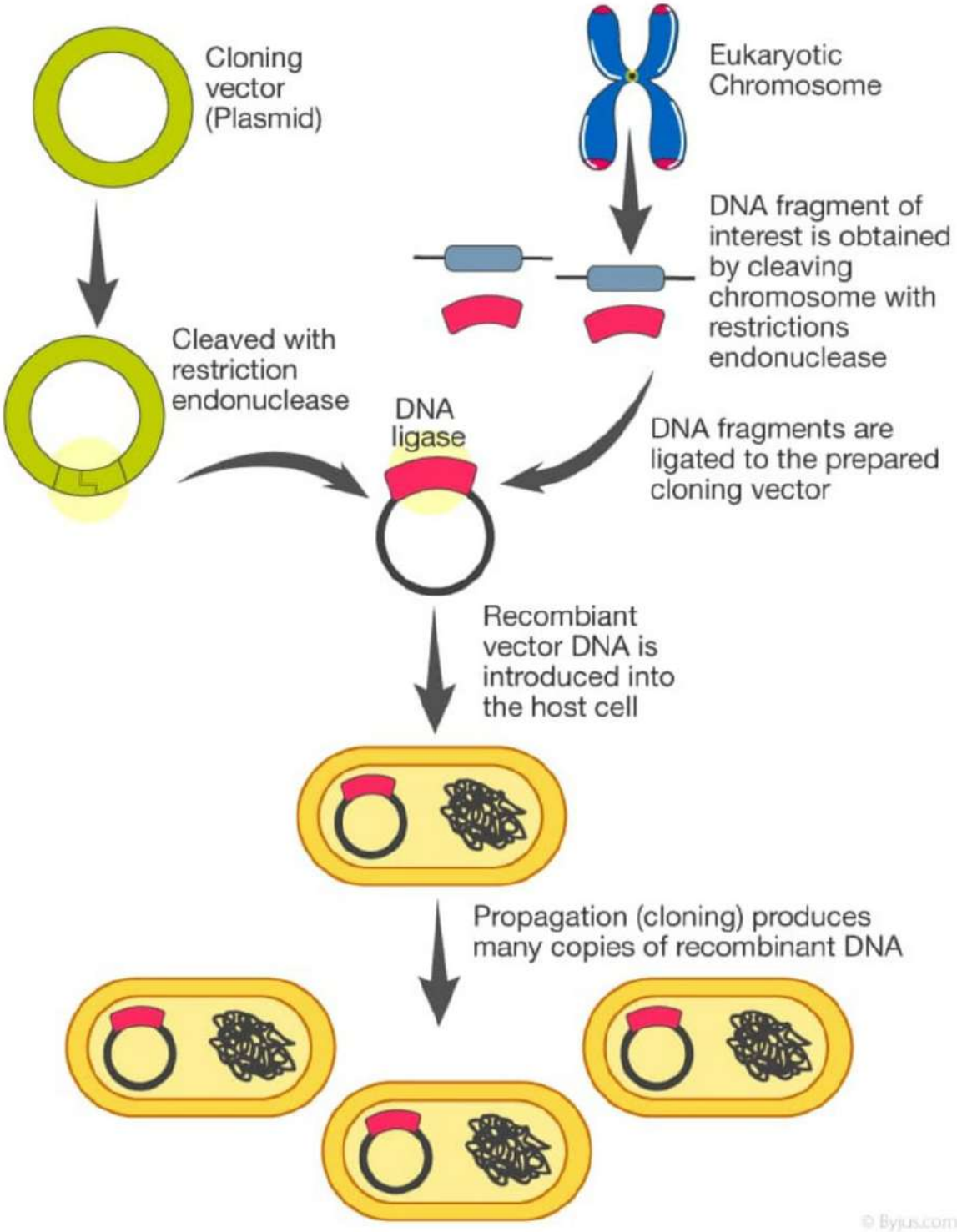
I would also like to thank my parents and friends for encouraging me during the course of this project.

CLONING

Cloning is the process of producing individual organisms with identical genomes, either by natural or artificial means. In nature, some organisms produce clones through asexual reproduction. In the field of biotechnology, cloning is the process of creating cloned organisms of cells and of DNA fragments.

TYPES OF GENE CLONING

- *Gene cloning*
- *Reproductive cloning*
- *Therapeutic cloning*


Cloning vector (Plasmid)
Eukaryotic Chromosome
DNA fragment of interest is obtained by cleaving chromosome with restrictions endonuclease
Cleaved with restriction endonuclease
DNA ligase
DNA fragments are ligated to the prepared cloning vector
Recombiant vector DNA is introduced into the host cell
Propagation (cloning) produces many copies of recombinant DNA
© Byjus.com

A SUCCESSFULLY CLONED ANIMAL:DOLLY

Born: 5 July 1996

Died: 14 February 2003

Acquired: Gifted by the Roslin Institute, University of Edinburgh

Museum reference: Z.2003.40

On display: Dolly is currently on display in 'Explore' within the Science and Technology galleries.

Conclusion

In 21st century, genetic engineering is very much important. Cloning seems to become a vital technology for agriculture and medicine. We should point out that with the careful continuation of the research the technological benefits of cloning clearly overweigh the social consequences. In their minds final products of cloning like farm animals and laboratory mice will not be the most important achievement. Application of cloning will improve the overall quality of science and life. Lastly I like to conclude that we are against cloning humans because even though they might look the same they are not the same person. For example the original person might be a very nice person and clone could be a murderer. However if cloning is used to save endangered species then it should be allowed