

VIDYASAGAR UNIVERSITY



Field Report

On

Study of Biodiversity at Digha and Adjacent Coastal Regions

B.Sc. Sem. III CBCS , Zoology CC

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Session:2021-22

Certificate of Participation

This is to certify that J. Ina Khmi Sahon student of B.Sc Hons., Sem. III , **Sitananda College, Nandigram** was participated in field study at **Digha & adjoining areas**, for **Coastal Biodiversity**, during academic year 2022-23 , as per guidelines issues by Vidyasagar University under our supervision.

Bera 28/12/2022
Signature of teacher's

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Acknowledgment :-

We are very thankful to have the opportunity to study the seasonal distribution at their greatful to our principal Dr. Samu Mahali and Senior Lecturer Mr. Pallab, Mr. Bera for their guidance and valuable suggestions, kind help and constant encouragement for this field study.

Department of Zoology
SITANAN JA COLLEGE
Nandigram, Purba Medinipur

Date - 12/12/22

Field study and its practical value

'zoology' is a vast subject. which deals with animals from Amoeba to Elephant or in other non-biological language 'practical place. since it is never restricted to classroom. Though laboratory and museum based works are in the routine studies. but the most magnificent animals of laboratory become 'Living Museum' of all the biotic organisms, the members of zoology will definitely be incomplete. house of animals.

The biological field study is significant for the study of different members of communities as their behavioural activities with other members of an ecosystem.

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Date a field study - : 12.12.2022

We started our journey from our collage at early morning and return in this day at evening on the date of 17.12.23.

Guides : —

Our departmental teacher pallab Bera. Sumen Jana. Saraswati mity guides us and help to give information about study of bio-diversity in coastal area.



Group photo at
Marine Aquarium and
Regional Centre

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GROUP PHOTO AT DIGHA



AT ZOOLOGICAL SURVEY OF INDIA,
DIGHA, WEST BENGAL, INDIA

GROUP PHOTO AT MAHARAJA
AQUARIUM & REGIONAL CENTRE

Ecology and biotic communities of Digha and adjoining beachels :-



The coastal zones are the place of broad interface between land and sea - where production, consumption, recreations and exchange process. Ecologically occurs in different biotic communities. Ecologically hydraulic, geological and chemical activities of different biotic organisms.

The world coast line is about 77,0,000 K.m long and 66% of world population resides with a close vicinity of the coastal environment. By virtue of possession of so many geomorphological units like continental-shelf, intertidal-belts, dunes, deltaic-island with mangroves and estuaries. This coastal zone governs regional climatic coastal zone governs regional climatic condition, food-production, harvesting of energy resources, human-settlements, industrialization etc.

The Indian subcontinent includes three (3) major maritime environments as Indian ocean, Arabian sea forming the west coast and the Bay of Bengal represent

lining the east coast with a coast line of about 7,500 km. The coastal area of West Bengal extends over 0.22 million hectare and along 2200 km. of coastal line. It includes two coastal districts — The South 24 Parganas and Midnapore (East). represents 27% of West Bengal's coastal tract (60 km) extending along the west bank of Hoogli estuary from New Digha and then around Jampur, Khejuri, Nandigram and Haldia on the east to the further north upto Tamruk on even on the bank of Rupnarayan.

Digha and Talsami sea beaches are excellent areas for marina ecology studies. Though this beach is subjected to the extreme temperature, salinity, turbidity and wave actions, though these beaches are completely sandy beaches, though these beaches are completely sandy beaches. Generally this beach is characterised by moderate wave action. For the prolonged time taken up for drying up this beach is suitable for

deposition of organic matter is the sand.

Talsami contains coastal ecosystem along with estuarine ecosystem as small water channel of subarnarekha river open in (Bay of Bengal).

This part contains diverse form and composition.

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Adaptations of sandy sea shore animals :-

Most of the marine sand-dwelling forms are burrowing in nature.

- ① To escape from the action of waves, most of the sandy shore animals lead a burrowing mode of life.
- ② Due to burrowing habit, these organisms have developed certain common features such as digging organs, development of ciliary mode of feeding and certain respiratory devices.
- ③ Like earth worms these animals swallow the sand containing organic detritus. *Anemicola*, *Balanoglossus*.
- ④ Some other organisms create a water current which brings in the organic food matter e.g. *Amphioxus* sp.
- ⑤ For the entry of water current into the respiratory channels various types of mechanism are found in crabs.
- ⑥ Burrowing molluscs develop long siphons.
- ⑦ Burrowing annelids have lost their parapodia.
- ⑧ Fishes that feed on the sandy shore fauna have elongated jaws which are used to plough and sands.