

ALL SAINTS' COLLEGE

THIRUVANANTHAPURAM



FIRST DEGREE PROGRAMME IN ZOOLOGY

SEMESTER VI

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Field Study Report COURSE CODE - ZO1646

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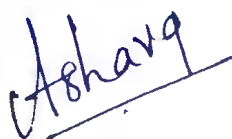

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Examiners (1)



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For Use of the Department
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INTRODUCTION

For several years, now the concept of virtual tour has an important role in our life. Virtual tour gives us a stimulation of an existing location usually composed of a sequence of videos or still images. It also use multimedial elements such as sound effect, music and text.

Nature is what makes up the core of zoology. In such a pandemic situation, we can learn, feel and explore through internet. In our virtual tour, we visited the sites of Kerala university of fisheries and ocean institute (KUFOI), Neyyar Wild life Sanctuary, and Museum in Trivandrum.

The Schedule of visit was decided as follows, on March 22nd 2021 KUFOI, on March 23rd 2021 Neyyar wildlife Sanctuary, March 24 2021 Natural Historic Museum Trivandrum.

THE TRIP :-

As part of our first degree programme, a virtual field study was organised by our department extending from March 22nd to March 24 2021.

KERALA UNIVERSITY OF FISHERIES AND OCEAN STUDIES.

We started our virtual tour on 22 March 2021 at 10:50 am by accessing the site <https://youtube/iouuattwfidy>

The Kerala University of Fisheries and Ocean Studies (KUFOOS) is a university established by the government of Kerala, devoted to studies in fisheries and ocean science. KUFOOS has its headquarters in the premises of the college of fisheries, Panangad.

KUFOOS is the first university in Kerala exclusively dedicated to studies in fisheries and allied disciplines. Dr. B. Madhusoodhanakurup, a member of Kerala Coastal Zone Management Authority and Director of School of Industrial Fisheries, Cochin University of Science and Technology is the ~~present~~ vice chancellor of the Kerala University.

KUFOOS is an autonomous, publicly funded institution, established on 20 November 2010. This is the first fisheries university in India, coming under the fisheries ministry with its

headquarters at Panangad, Kochi. It is the primary instrument of Kerala State in providing human resources, skills and technology requested for the sustainable development of fisheries and ocean.

EDUCATION:

The study of fisheries science include aquaculture, artificial breeding, fish culture and fishery resources. Teaching is carried out at the Panangad campus by the university. The university has Teachers, Scientists, laboratories, fish hatcheries, farms, library, and a computer lab. National Science Scheme, NCC placement cell and the parent-Teacher Association takes care of the extra curricular activities of the students. Facilities are available for sports and games. Hostel facility is available for boys and girls.

The University offers undergraduate (B.F.Sc) post graduate (M.F.Sc) and doctoral (PhD) programmes in fisheries science under the faculty of fisheries. The courses under the faculty of fisheries are

offered in full compliance with the ICAR pattern. post graduate programmes are offered in four discipline and Doctoral programmes in three discipline. There are 50 seats for the B.T.Sc. programmes out of which 31 seats are open. 7 seats are allotted to ICAR candidates and 6 reserved for children of fisherman out of the 14 seats for the M.F.Sc. programme, four seats are allotted to the ICAR candidates.

In the academic year 2012-2013 the university started post graduate courses in MBA under the school of Management and Entrepreneurship, physical oceanography and ocean modelling and Biological oceanography and Biodiversity (M.Sc.-B.O.BD)

COURSES

B.T.Sc. (4 years)

B.Tech. (Food Science and Technology (4 years)

M.B.A (2 years)

M.Sc. Food Science and Technology (2 years)

M.Sc. Marine Technology (2 years)

MBA Energy Management (2 years).

PHD in Aquarium Science and Technology (1 year)

PHD in Industrial Aquaculture.

M.F.Sc Aquaculture (2 years)

M.F.Sc Aquatic Animal Health management (2 years).

M.F.Sc Aquatic Environment management (2 years).

M.F.Sc Fisheries Resource Management (2 years).

LLM Maritime Law (2 years).

M.Sc Biotechnology (2 years)

M.Sc Environmental Science (2 years)

M. Tech Coastal and Harbour Engineering (2 years).

M.F.Sc fish nutrition and Food Technology (2 years)

M.F.Sc climate Science (2 years).

M.F.Sc Disaster Management (2 years).

M.Sc Physical Oceanography (2 years).

M.Sc Remote sensing and GIS (2 years).

M.Sc Statistics (2 years).

MTech Ocean and Coastal Safety Engineering (2 years).

Post doctoral fellowship in management, Humanities and Social Science (2 years)

Post Doctoral fellowship in Ocean engineering (2 years).

M.Tech Integrated Coastal Zone Management (2 years)
PGD in Marine Law.

NATURAL HISTORY MUSEUM TRIVANDRUM

On the second day of our tour March 22nd 2021 we started our virtual tour by the link "<https://youtube.com/watch?v=JwDQ6t17HRk>" at morning 10:30am, all students started visiting the site, the virtual tour was coordinated by Dr Sheeley and Dr Divya Grace.

Thiruvananthapuram Natural History Museum is a scientific institution with an exhaustive collection of current and historical specimens of animals, plants, geology, palaeontology, and more. The museum was established in 1964. The panoramas so created in the past signify the present-day relevance of in-situ conservation of wildlife and their habitats. The display provides exhaustive information, facts and figures concerning the whole of animal kingdom, from the tiny creatures such as ants, and termites to that of the largest whale. It has an enormous animal collection cabinet especially for students of zoology and other biological sciences to explore any information they need. One

get dismayed with the exhaustive collection of variety of avi fauna which provides unparalleled ornithological study and research opportunities. A good display of birds collected by the famous ornithologist Dr Salim Ali during his study on Birds of Travancore is very interesting for Ornithologists and Naturalists.

The panoramic display of animals in their natural habitats makes it equally interesting and fascinating to the general public as well. 20 million years old petrified wood fossils displayed near the entrance of this Museum is a major attraction.

HISTORY:-

The museum was first established in 1855, but demolished in 1874 to lay foundation for a new building, during the reign of Ayilyam Thirunal. The new building was named after Lord Napier, the Governor of Madras from 1866-1872. The museum was designed by Robert Chisholm, the consulting Architect of the Madras Government, and the construction was completed in 1880.

ENTRANCE GALLERY:-

The entrance gallery of the museum adorned by the traditional wooden panelling work, accommodates an imposing life size model of toothed whale on the left and two stuffed rhinos on the right. The Rhinos are the star attraction of the museum as well set on a kaxhuanga model diorama.

Birds Gallery: The spacious birds gallery displays a fairly exhaustive collection of birds of this region in a series of 15 large sized display cases. The display consists of systematic- cum - diorama cases of birds from all parts of the state arranged according to families. The first three cases contain the peaching birds.

The finches, Baya, Tailor birds, Sunbirds, Munias, Mynas, Doves, Orioles, Swallows, Shrikes, Larks, Pitsa and Common House Crow are some of the interesting birds of this Group. Horn bills are exhibited independently in a show case adjoining the Wood peckers, Hoopoe and Barbets. The Terns and Gulls of our collection form a habitat group. They are very expertly set up

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with adequate background. Different Species of Oats, Cuckoos, Doves and parakeets form the notable exhibits in the next two cases. Next group consist of shore birds such as Snipe, Oystercatchers, Woodcock, Sociable lap wing, Kentish plover, gulls, Terns etc., arranged in two adjacent cases. The birds of prey are exhibited in one of the corner cases. This group includes the Eagles, kites, Hawks, Shikra, Ospreys etc. Marsh birds are exhibited in a semi-habitat diorama and these are Grey Jungle Fowl, Red Spur fowl, Flamingo, Moorhen Quail, Bustard, Crane, Rail etc. One habitat case is set apart for the display of birds usually seen in and around Trivandrum. They comprise the jungle crow, Heron, Grebe, Egret, Oriole and Sunbird. A few cases have been allotted for the wading and swimming birds found in the state. They include frigate bird, Boobies, pelicans, Cormorants and Darters, Heron, storks, ibises, Spoon bills and Bitterns.

Skeleton Gallery: Articulated skeletons of fully grown Elephant, Gaur, Sambar Deer, Malayan Tapir, Indian wild Ass, Ostrich, Emu etc. are exhibited

is a small hall adjoining the birds gallery. The outstanding exhibit here is the gigantic bone of the lower jaw of the Indian fin whale. A few skeletons of apes and man are displayed to show the similarity in the skeletal structure. A complete made to scale human skeleton in ivory is of great interest to the lay visitor.

First Floor

Mammals' gallery: Mammals' gallery of this museum has varied species collections from Indian, Africa and South American continent. In order to make the exhibits more appealing and educative a few habitat cases are set up for display of some of the collection such as tigers, leopards and primates. These cases which are life-like give vivid picture of the habitats together with their surroundings in natural set up.

GALLERY FOR ASSORTED COLLECTION OF VERTEBRATES

AND INVERTEBRATES.

Vertebrate Section: Examples of fishes with different body forms and colours are shown in the fish gallery. The most conspicuous among them is the cast of a whale shark. Sharks, skates

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and rays having cartilaginous skeletons and different varieties of bony fishes are represented here. Different types of amphibians like Salamanders, frogs and toads are represented here as well preserved specimens. Reptiles like lizards, snakes and tortoises are represented in various forms of collections. There is a separate case displaying the poisonous and non poisonous snakes. The 14 feet of skeleton of King Cobra is noteworthy. One of the main attractions among the gallery is the plaster cast of a big Estuarine Crocodile and a specimen caught alive from a canal near Thirupunithurai in 1904 and sent as a gift to Museum by the Maharaja of Cochin.

Index Gallery:- The very interesting and educational index collections have been arranged on the pattern of the British Museum of Natural History at South Kensington. The first case displays a miniature model of pre-historic animals, a human form shown with each model for the relative size comparison. Duck billed platypus, Armadillos and Indian pangolin are some of the examples of rare and interesting animals that had been living in the zoo.

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are also exhibited. Modification of fur, skeletal parts of selected mammals are exhibited here. A few examples of primitive classes are exhibited in detail for various aspects like - comprehensive study of skeleton, dentition, integument etc.

Invertebrate Section: Invertebrate specimens are represented mainly with the help of glass models cast and dried exoskeleton. Microscopic protozoans are represented here in magnified glass models. Species of Euplectella, Ephyra, Galeodes etc are the examples exhibited. Coelenterates belonging to this group of Hydrozoa, Scyphozoa and Anthozoa are also represented mostly in glass and hard skeletal structures. Species of Physalia, Aurelia, Medusaria, Fungia are the examples exhibited. The Annelids are represented by various marine segmented worms and leeches. Among the group of platyhelminths exhibited, life histories of some of the parasitic type are very interesting. Different classes of Arthropods like Crustacea, Millipeds and Arachnida and insect are represented, the mollusk are illustrated by models as well as shell made of lime.

Ethnology: The ethnology section has a series of models and plaster casts, of some of the scheduled tribes in Kerala. The life size plaster casts are attractively displayed with their weapons and implements. Apart from these exhibits, there are some ethnological models illustrating the different art forms, model of typical Kshatriya lady and a devadasi girl in characteristic costume and jewellery. Illustration of a model Nair house. Other miniature models show the various costumes and jewellery worn by women folk in different states in India.

Palaeontological :- The fossilized tree trunk collected from the National fossil park, Thiruvakkara, Tamil Nadu, and the polished lime stone table top having embedded skeletal remains of countless marine organisms form the major attraction.

Collections of Ornithological Studies :- Natural History Museum, Thiruvananthapuram has a large collection of preserved bird skins which forms an important resource for Taxonomical studies. This is probably one of the most important and largest collections other than BNHS and ZSI collection in

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India The original collections of the birds specimens was done during the late 19th and early 20th century by the British Ornithologists. William R. Davidson, H.S. Ferguson, T.F. Bourdillon, John Stewart, Salim Ali, N. S. Pillai etc., a major part of the collections are from Kerala, there are also collections from Kalkate, Sikkim and coastal Malayan peninsula. A total of 2,225 bird specimens are there in collection.

Catalogue :- Bird Specimens are kept systematically in Museum Depository room so that they can be used for study of the avian fauna. The data held on a specimen usually include information on species, collecting date, name of the collector, sex and approximately locality.

A computer system loaded with the catalogue and photographs of the specimens are made available. Researchers are advised to make use of the facility first and accessing the actual specimens is allowed only if it is absolutely necessary.

NEYYAR WILDLIFE SANCTUARY

On the third day of our virtual tour, we access to the site on 24th March 2021 at 10:30 am.

The Neyyar wildlife sanctuary is a small national park and protected area in the southern state of Kerala situated near the town of Kallikad.

Around 32 km from Tiruvandur, set on 12,000 hectares of natural vegetation is the Neyyar wildlife Sanctuary. This is the drainage basin for the Neyyar river and its tributaries: Mullaigar and Kallar. The wildlife sanctuary offers a rare chance to view exotic flora and fauna including the Asian elephant, tiger, leopard, slender loris and reptiles and amphibians like the toadman Toad and the king cobra. It was declared as a Sanctuary in 1958.

The mean summer temperature is around 35°C and winter being around 16°C . The average rainfall from the south west monsoon between May and July. The average rainfall is 2800 mm.

Forest type of this Sanctuary include west coast tropical evergreen, Southern hill top

tropical evergreen, southern moist mixed deciduous forest, Southern tropical hill forests, southern sub-tropical savannah and Reed brakes.

The ~~sandhu~~ sanctuary has a substantial natural vegetation cover. The diversity of its flora make the sanctuary an ideal gene pool preserve. There are 39 species of mammals, 179 species of birds, 30 species of reptiles, 17 species of amphibians and 40 species of fishes are reported from the sanctuary.

Neyyar wildlife sanctuary in turn is a thrilling place. The enjoy lion safari by the western cirkab. A crocodile farm of around 20 mugger crocodiles with crocodile Rehabilitation centre and Research centre is present. The Elephant Rehabilitation centre within the sanctuary is home to several elephants. It takes care of elephants and you can play with the elephant calves too. Neyyar wildlife Sanctuary has a deer rehabilitation centre too.

The sanctuary is also home to several medicinal herbs, thick plantation and meadows presenting an enchanting sight.

Neyyar Dam and Lake in the Sanctuary offers a panoramic view of the wild. And this scenic location is also a popular picnic spot. The boating facilities at the Neyyar Dam Lake attracts ~~an~~ locals and tourists alike. There is also a watchtower to get beautiful view of the area and spot animals from above.

CONCLUSION

The 3 days of our virtual study tour was a wonderful experience. We learnt a lot of things through this. Students were all prepared to experience, observe and have a learning experience of history of zoo, species of animals, their general administration through this virtual tour.

The virtual visit was scheduled for March 22nd 2021 to March 24th 2021. The programme chalked out for the trip began through google meet with the morning prayer, followed by a brief introduction, all this was followed with the presentation of official documentary on the zoo. It was an incredible experience for us. We click some beautiful pictures of animals that attracted our attention during the presentation. After presentation Dr. Sheeley ma'am encouraged us to share our views and observation and experience about virtual tour.

It was indeed an enjoyable educative learning experience to treasure for the students and the staff.