

# **ENVIRONMENT AND WILDLIFE**

**(Certificate course offered by Zoology Department)**

## **SYLLABUS & ASSESSMENT PROCEDURE**

**Course Code:** CZOCCC01

**Total Hours:** 30

Better awareness on life around us and the environment is a need of the time for nature conservation. However, there is not many options available for the students to get scientific knowledge on environment and conservation. It is a sad reality that much of our interest on environment and wildlife ends up in nature/wildlife photography. It is in this context that the Dept of Zoology, Payyanur College, offers a certificate course of 30hr duration on different aspects of wildlife conservation and management.

Objectives

The course is to develop interest and scientific awareness in students on nature conservation through studying wildlife. The students are expected to understand the issues, challenges and importance of wildlife conservation. The course expects to ensure that the future decisions of the present students, in different capacities in the society are 'ecofriendly'.

## **ENVIRONMENT AND WILDLIFE**

### **Syllabus**

#### **UNIT 1. Introduction (3hrs)**

Definition of wildlife. History of conservation in India. Importance of conservation - Ecological, Educational, Scientific, Ethical, Commercial, Aesthetic, Recreational

#### **UNIT 2. Threats to Wildlife (3hrs)**

Habitat destruction (quantative and qualitative), isolation of population and inbreeding depression, hunting, competition. Wildlife trade. Exotic species as threat to native species a) animals (Tilapia and African catfish as examples) b) plants (mention weeds like Lantana, Mikania), Extinction. Examples of some extinct species and reasons for extinction - Cheetah, Dodo, Passenger pigeon.

### **UNIT 3. Conservation Methods (3 hrs)**

In situ Conservation (Protected Areas): Wildlife Sanctuaries, National parks, Biosphere Reserves. Protected areas in Kerala. Mention major forest types (Evergreen, Semi evergreen, MDF, DDF and Shoala forests) Ex-situ conservation - Zoos - captive breeding; Modern Zoo concept - safari, nocturnal zoo. Gene banks

### **UNIT 4. Techniques for Wildlife Study (3hrs)**

Study of animal evidence in the field (Animal signs) - impression of foot on soil, droppings, feeding signs, calls, scent mark, wallows, shelter. Marking and tagging of animals. Radio telemetry, Remote sensing, Wildlife photography

### **UNIT 5. Wildlife policy and legislation (2 hrs)**

Indian Board of Wildlife: Wildlife Protection Act 1972; CITES, IUCN Red Data Book (Criteria for treating a species as endangered); Convention on Biodiversity.

### **UNIT 6. Conservation projects (2 hrs)**

Project Tiger, Project elephant, Gir Lion sanctuary project, Crocodile breeding project

### **UNIT 7. Conservation organizations (2 hrs)**

UNEP UNDP, FAO, WWF, BNHS. Mention Chipko movement and Silent Valley movement

## **Unit 8. Bionomics of Wild Animals (3 hrs)**

Brief account of the following fauna

1. Mammals: a) Primates: Slender Loris, Lion tailed macaque, Rhesus macaque, Nilgiri langur, Golden Langur b) Carnivores Tiger, Asiatic Lion, Panther, Leopard cat, Malabar civet, Palm civet. c) Herbivores: Asian elephant, One horned rhinoceros, Wild buffalo, Nilgiri Tahr.
2. Birds: Jerdon's courser, Great Indian Bustard, Great Indian Hornbill, Pea fowl.
3. Reptiles: Green Sea turtle, Gharial Saltwater crocodile (*Crocodylus porosus*); Mugger crocodile (*Crocodylus palustris*); Common snakes of Kerala, Identifying poisonous snakes. Snakebite and antivenom.
4. Amphibians: *Nasikabatrachus*
5. Fishes: Sharks (*Scoliodon*, *Zygaena*, *Pristis* -low fecundity and excess harvesting).
6. Invertebrates: Atlas moth, Southern birdwing.

Field visit to any area of wildlife/conservation importance (8hrs)

Written Examination (2hrs) (Total = 20+8+2 = 30hrs)

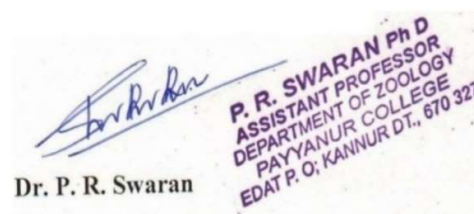
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### **ASSESSMENT PROCEDURE**

#### **(Environment and Wildlife)**

Certificates will be awarded to all the candidates who successfully complete the following assessment criteria:

1. 75% of attendance
2. More than 40% marks in exit test



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