

COLLEGE OF FISHERIES, KISHANGANJ
BIHAR ANIMAL SCIENCES UNIVERSITY, PATNA
Lecture Plan/Schedule
Course Title: Fish Biodiversity and Conservation Biology
Course No. FRM 502; 3(2+1)

Theory

Sl. No.	Topic	No. of classes
1.	Fish diversity: Fresh water fish diversity	2
2.	Marine fish diversity-Quantification	2
3.	Importance of biological diversity- abundance- distribution	2
4.	Species concept for conservation related decisions: Unique species	2
5.	Umbrella species-flagship species, Keystone species	1
6.	State fish concept, -Endangered species-extinction-recovery - CITES- NBA	2
7.	Migratory stock- Essential Habitat-EBSA	2
8.	Biodiversity conservation methods: IUCN criteria - Red List	1
9.	Marine Protected Areas, Sanctuaries and Biosphere reserves, Establishment of National marine parks,	2
10.	In situ and ex situ conservation	1
11.	Participatory approach - Conservation value index, IBI - stock resilience-recovery. Wild life protection act, Biodiversity Act	2
12.	International treaties and conventions (CITES, CMS, RAMSAR Convention)	1
13.	Impacts of anthropogenic intervention on fisheries biodiversity: Exotic species	1
14.	Damming of rivers, Construction of shore protection walls, Micro hydal power stations, Oil rigs	2
15.	Aquatic biodiversity: Threats-Over exploitation, habitat reclamation, pollution, habitation, planning and management	2
16.	Tools for conservation, participatory approach	2
17.	Impact of climate change on the ecosystem biodiversity, health and productivity	2
18.	Conservation biology of biodiversity: Concept of hotspots- Ecological integrity: Minimum population sizes, Inbreeding depression	2
19.	Genetic tolerance of extreme conditions	2
20.	Restoration of populations at risk of extinction	2
21.	Conservation –management of invasive species	2
22.	Economic valuation of biodiversity and ecosystems	1
	Total no. of classes	38

Practical

Sl. No.	Topic	No. of classes
1.	Identification of scheduled aquatic organisms	1
2.	Identification of exotic species	1
3.	Study of predators of endangered animals	1
4.	Visit to river ecosystem for recording the biodiversity	1
5.	Visit to lake ecosystem for recording the biodiversity	1
6.	Visit to dam/barrage ecosystem for recording the biodiversity	1
7.	Case studies - Conservation strategies	2
8.	Calculation of trophic levels	2
9.	Study of biodiversity indices-IBI	2
10.	Study of conservation value Index	2
11.	Presentation of field study	2
	Total no. of classes	16

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