

Capture Fisheries (Theory)

Unit 1: Riverine and Coldwater Fisheries:

Types and characteristics of capture fisheries. Riverine capture fisheries: Fisheries of the major Indian rivers. Present status, scope and importance of riverine fisheries in India. Important cold water fish fauna of India, their seed resources, and exploitation. Trout, Mahseer and other game fishes. Status and scope of cold water fisheries with special reference to N. E. India.

Unit 2: Wetland Fisheries:

Ecological features of wetlands and fish diversity. Development, problems and prospects of wetland fisheries in India. Characteristics of *beels* with special reference to N. E. India. Scope and importance of wetland fisheries.

Unit 3: Lacustrine and Reservoir Fisheries:

Difference between lakes and reservoirs. Fisheries of major lakes and reservoirs of India. Impact of dam construction on fish fauna. Importance of fish ways for conservation of fishes.

Unit 4: Estuarine and Marine Capture Fisheries:

Estuaries: Types and physico - chemical characteristics. Zonation of marine ecosystem. Exclusive Economic Zone (EEZ) of India. Fishing seasons. Commercially important estuarine and marine fishes.

Unit 5: Population Studies & Statistics:

Fish population: Definition, population dynamics and estimation of population; causes of fluctuations of fish population abundance. Basic ideas about marking and tagging. Statistics: Types of data (Primary and Secondary), measures of central tendency and dispersion. Regression analysis and correlation coefficient.

Suggested Reading:

1. Bal, V (2002). Marine fisheries. Tata McGraw Hill Publishing Company Ltd.
2. Barbhuiya, H.A. and Kar, D. (2013). Treatise on Mahseer Fishes, dominant publishers and distributors(p) Ltd, Delhi-110053
3. Biswas, K. P. (2011). Marine prawns and shrimps. Daya Publishing House, Delhi – 35.
4. Dholakia, A. D. (2004). Fisheries and Aquatic resources of India. Daya Publishing House, Delhi – 35.
5. Ibrahim, P. (1992). Fisheries Development in India. Concept publishing company, Delhi- 35
6. Jhingran, V. G. (2007). Fish and Fisheries of India. Hindustan Publishing Corporation (India), Delhi – 7.
7. Karakandi, R. (2000). Recreational Fisheries Development in India. Daya Publishing House, Delhi – 35.
8. Mishra, S. R. (2006). Inland Fisheries in India: Issues and Concerns. Daya Publishing House, Delhi – 35.
9. Pandey, K. & Shukla, J. P. (2005): Fish and Fisheries. Rastogi publication, Meerut-2..
10. Sehgal, R. L. (1992). Recent Advances in Cold Water Fisheries. Today and Tomorrow Printers & Publishers, New Delhi – 5.
11. Sugunan, V. V. (1997). Reservoir fisheries of India. FAO publications

Capture Fisheries (Practical)

1. Identification and classification of brackish water and marine fish.
2. Identification and classification of some important marine prawn and mollusc.
3. Analysis of length-weight relationship and condition factors.
4. RLG value, analysis of gut content and gastro somatic index in fresh water fishes.
5. Field visits to different natural water bodies and survey of fish fauna.

DISTRIBUTION OF MARKS:

1. Identification and classification of fish and mollusc.
2. Length-weight relationship/ gut content analysis.
3. Field Report based on field visits.
4. *Viva voce*.
5. Laboratory record.