

* Aquaculture & Fishery Biology

* VI Semester B.Sc. Zoology - Elective Paper

* Swapana Johny
Asst. Professor
Dept. of Zoology



**DEVELOPMENT OF
AQUACULTURE**

- * FISH FARMING PREVELANT IN ANCIENT EGYPT, CHINA & INDIA
- * 2500 BC IN EGYPT
- * COMMERCIAL SCALE FARMING IN CHINA AROUND 2000 BC
- * CHINESE CARP AND FARMING TECHNIQUES
- * “THE CLASSIC OF FISH CULTURE” BY FAN LEI 475 BC

* HISTORY

- * INTEGRATED WITH SERICULTURE
- * CHINESE MIGRANTS - CARP SEEDS - MALAYA, FORMOSA, INDONESIA, TAIWAN, ETC.
- * EAST EUROPEAN COUNTRIES TO REST OF THE WORLD SLOWLY
- * SECOND WORLD WAR - IMPORTANCE OF PROTEIN - FISH AS A SOURCE

* HISTORY

* INTERNATIONAL ORGANIZATIONS

- * FOOD & AGRICULTURE ORGANIZATION - FAO
- * UNITED NATIONS DEVELOPMENT PROGRAMME - UNDP
- * WORLD BANK
- * EXTENDS FINANCIAL AS WELL AS TECHNICAL SUPPORT FOR AQUACULTURE PROGRAMMES

- * AGE OLD TRADITION
- * FISH FARMING PRACTICED IN 300 BC
- * KOUTILYA'S ARTHASASTHRA
- * TRADITIONAL REARING METHODS IN BENGAL, BIHAR & ORISSA
- * PRAWN CULTURE - BHERIES - WEST BENGAL
- * POKKALI FIELDS - KERALA

* INDIA

- * CENTRAL INLAND FISHERIES RESEARCH STATION,
CULCUTTA 1947
- * 1985 - 1. CENTRAL INSTITUTE OF CAPTURE
FISHERIES RESEARCH (CICFR) BARRACKPORE,
WEST BENGAL
- * 2. CENTRAL INSTITUTE OF FRESHWATER
AQUACULTURE (CIFA) DHAULI, BHUBANESWAR,
ORISSA

* INSTITUTIONS

- * NATIONAL RESEARCH CENTRE FOR COLD WATER FISHERIES(NRCCF) HALDWANI, UP
- * CMFRI- CENTRAL MARINE FISHERIES RESEARCH INSTITUTE, COCHIN(HQ)
- * CIBA - CENTRAL INSTITUTE OF BRACKISH WATER AQUACULTURE, SAN THOME, CHENNAI
- * MPEDA - MARINE PRODUCTS EXPORT DEVELOPMENT AUTHORITY OF INDIA, COCHIN (HQ)

* INSTITUTIONS



- * Directorate of Coldwater Fisheries Research, Bhimtal
- * CIFE - Central Institute of Fisheries Education, Mumbai
- * DST - Department of Science and Technology
- * MoES - Ministry of Earth Sciences
- * MoEFC - Ministry of Environment, Forest and Climate Change
- * NFDB - National Fisheries Development Board, Hyderabad

* INSTITUTIONS

- * CAA - Coastal Aquaculture Authority
- * CMLRE - Centre for Marine Living Resources and Ecology, Cochin
- * NCSA - National Centre for Sustainable Aquaculture, Kakinada , AP.
- * RGCA - Rajeev Gandhi Centre for Aquaculture, Chennai
- * NIOT - National Institute of Ocean Technology, Chennai
- * ICMAM - Integrated Coastal and Marine Area Management, Chennai.

* INSTITUTIONS

- * NIO - National Institute of Oceanography, Goa
- * BNHS - Bombay Natural History Society, Mumbai
- * CIFNET - Central Institute of Fisheries Nautical and Engineering Technology, Cochin
- * NBFGR - National Bureau of Fish Genetic Resources under ICAR
- * PMFGR-ICAR-NBFGR - Peninsular and Marine Fish Genetic Resources - Cochin

* INSTITUTIONS

- * 44 RIVERS
- * 25 RESERVOIRS
- * 30 BRACKISH WATER BODIES
- * INNUMERABLE PONDS
- * 590KMS COASTAL LINE

* KERALA

- * Ranks first in marine fish landings of India
- * Traditional brackish water prawn farming - prawn filtration - Chemmeen Varthu
- * Ponds, reservoirs and brackish water bodies
- * 590 kms of coast line
- * Judicious exploitation of water bodies for aquaculture operations - enhance fish production

* SCOPE OF AQUACULTURE

- * JANAKIYA MALSAYAKRISHI - Joint venture by state Govt.- aquaculture by peoples participation
- * Involves local govt bodies, state and central govt research institutions, different govt depts, banks and agricultural and social services organizations.
- * Provides necessary guideline and technical support

* SCOPE OF AQUACULTURE

- * MARICULTURE - Shrimp Culture, Pearl Oyster Culture, Edible Oyster Culture, Lobster Culture, Sea Fish Culture, Crab Culture, Marine Ornamental Fish Culture, Sea Weed Culture
- * FRESHWATER AQUACULTURE - Freshwater Fish Culture, Prawn Culture, Ornamental Fish Culture
- * BRACKISH WATER AQUACULTURE - Shrimp Culture, Edible Oyster Culture, Crab Culture, Brackish Water Fish Culture, Clam Culture.
- * COLDWATER AQUACULTURE - food and sports, Ornamental Fish Culture

* SCOPE OF AQUACULTURE

- * LARGE NUMBER OF FISHERIES INSTITUTIONS
- * FISHERIES COLLEGE, Panangad
- * KUFOS - Kerala University of Fisheries and Ocean Studies
- * Dept of Aquatic Biology and Fisheries, Kerala University
- * INSTITUTIONS - CMFRI, MPEDA, CIBA, ADAC, MATSYAFED - Provide technical and financial assistance for aquaculture in the state
- * ADAC - Agency for Development of Aquaculture

* SCOPE OF AQUACULTURE

Thank You!

