

**GURU NANAK COLLEGE** (AUTONOMOUS)

Affiliated to University of Madras and Re-Accredited at "A" Grade by NAAC Guru Nanak Salai, Velachery, Chennai – 600042.

### **Department of Advanced Zoology and Biotechnology**

Event Title	National Workshop on "AQUACULTURE AND FISHERIES: DEVELOPMENT AND SUSTAINABILITY	
Category	All Students, Research Scholar, Faculty member, Farmers and industry person	
Date	From: 13.8.2020	To: 19.8.2020
No. of Resource Person	7	
No. of Participants	1052	

#### (1) **Report Description**

The head of P.G and Research Department of advanced Zoology and Biotechnology **Dr J. Jayanthi** organized a National Workshop on "AQUACULTURE AND **FISHERIES: DEVELOPMENT AND SUSTAINABILITY**" through live streamed in the You Tube channel – Zoology Department GNC from 13.8.2020 to 19.8.2020 at 2pm.

#### (2)Report

#### Day 1- 13.08.2020

#### TOPIC - "Viral Disease Management in Shrimp Culture with Reference to WSSV"

**Dr. A. SAIT SAHUL HAMEED** OIE Expert & FNAAS, Tata Innovation Fellow (DBT – Govt. of India) Associate Professor of Zoology (Rtd.) Coordinator, Aquatic Animal Health Laboratory (NABL Accredited), OIE Reference Laboratory, C.Abdul Hakeem College, Vellore was the resource person. 1340 people were participated through live streaming from all over world.

White spot disease (WSD) is a serious panzootic affecting prawn aquaculture. The disease is caused by white spot syndrome virus (WSSV), a large double-stranded circular DNA virus and currently the only member of the genus *Whispovirus* and family *Nimaviridae*]. In intensive aquaculture systems, mortality can be rapid and occurs at a rate of up to 100% The economic cost of the disease on the prawn aquaculture industry worldwide has been estimated at up to US\$15 billion since the emergence and initial spread of the disease, increasing at a rate of US\$1 billion annually, equating to approximately 10% of global prawn production.

#### Day 2 14.08.2020

#### **TOPIC - "Live Feed for Sustainable Aquaculture culture**

**Dr. K. ALTAFF** Professor, Department of Marine Biotechnology AMET Deemed University Kanathur, Chennai – 60 was the resource person. 1740 people were participated through live streaming from all over world.

The Speaker explained about Seed Production and Farming, Quality seed production, Live feed, Microbes, micro algae, protozoans, rotifers, cladocerans, copepods,

Artemia, worms. The technology for phytoplankton and zooplankton mass production has become very reliable and the production of live feeds is part of the standard working procedures in Mediterranean hatcheries. The efficiency of this part of the hatchery mainly depends on the implementation of standard procedures by well trained staff.

#### Day 3 15.08.2020

#### **TOPIC - Fishery Based Livelihood Support Activity in Open Brackish Water Bodies**

**Dr. DEBORAL VIMALA** Principal Scientist, Social Science Division (SSD), ICAR-CIBA, Chennai, Tamil Nadu was the resource person. 1440 people were participated through live streaming from all over world.

The Speaker explained about brackish waters unfit for any other productive purpose like irrigation, drinking and construction. It can be used only for shrimp/fish/crab production. If the water sources were well utilized – alternate livelihood income Open brackish water sources could be a shared resource for a group based aquaculture activity. The Asian seabass (*Lates calcarifer*) – Koduva It is an advantageous culture species in India, seabass has been cultured in brackish water and freshwater West Bengal, Tamil Nadu and Kerala - wild seed is stocked.

Day 4 16.08.2020

#### **TOPIC - "Mangrove Crab (Scylla serrata) Aquaculture for Entrepreneurs"**

**Dr. V. SHANMUGA ARASU** Asst. Project Manager, Seabass & Mangrove Crab Hatchery Project, Rajiv Gandhi Centre for Aquaculture, Research & Development Centre of MPEDA, Ministry of Commerce & Industry, Govt. of India was the resource person. 1540 people were participated through live streaming from all over world.

The Speaker explained about capture fishes and culture fishes, status of artemia and mud crab brood stock. Mud crab/green crab/mangrove crab' (*Scylla serrata*) commands sustainable domestic and international market. Owing to this fact, this species is widely exploited from all along the coastal belt of India and also in many parts of the tropical/subtropical regions of the world where its natural distribution is ascertained. As such, geographically, this species is widely distributed in Indo-Asian region and also certain tropical parts of Australian continent.

#### Day 5 17.08.2020

# **TOPIC** Latest Emerging Technologies in Seaweed Farming Around the World and with Special Emphasis to Indian Seaweed Farming"

**Dr. M. JAI KUMAR** Field Scientist Sea6 Energy Pvt, Ltd Tuticorin was the resource person. 1540 people were participated through live streaming from all over world.

The seaweed industry in India is mainly a cottage industry and is based only on the natural stock of agar-yielding red seaweeds, such as *Gelidiella acerosa* and *Gracilaria edulis*, and algae yielding brown seaweeds species such as Sargassum and Tubineria.

Macroalgae are classified into three major groups: brown algae (Phaeophyceae), green algae (Chlorophyta), and red algae (Rhodophyta). As all of the groups contain chlorophyll granules, their characteristic colors are derived from other pigments. Many of the brown algae are referred to simply as kelp.

#### Day 6 18.08.2020

#### **TOPIC - "Brackish Water Finfish Aquaculture - Livelihood Opportunities**

**Dr. M. KAILASAM** Principal Scientist & SIC, Fish Culture Division (FCD), ICAR-CIBA, Chennai, Tamil Nadu was the resource person. 1340 people were participated through live streaming from all over world.

Farming of brackish water fishes in locally crafted cages suitable for estuaries, creeks, backwaters and lagoons is an emerging innovative and viable technology for the production of valuable finfish such as seabass. The technology is efficient in utilizing the vast stretches of brackish water resources along the costal India for increased fish production, employment creation and income generation, falls under the vision of Indian Govt. under the blue revolution. In this direction, the ICAR-Central Institute of Brackish water Aquaculture (ICAR-CIBA), Chennai which is the nodal research institution for the development of brackish water aquaculture in collaboration with the National Institute of Ocean Technology (NIOT), Chennai has successfully demonstrated cage farming of Asian seabass fish (*Lates calcarifer*) in the Buckingham canal waters at Vennangupattu coastal village in Kancheepuram District of Tamil Nadu. CIBA mobilized the fisher youths from the villages. Skill development training has been provided as part of Attracting and Retaining Youth in Agriculture (ARYA) initiative of ICAR-CIBA partnering with NIOT on cage designing, fabrication, installation, nursery rearing and farming of fishes in cages.

#### Day 7 19.08.2020

#### **TOPIC - "High Density Production and Utilization of Marine Copepods in Sustainable Aquaculture"**

**Dr. P. SANTHANAM** Associate Professor Marine Planktonology & Aquaculture Lab Department of Marine Science, School of Marine Sciences Bharathidasan University Tiruchirappalli was the resource person. 1240 people were participated through live streaming from all over world.

The industrial development of shrimp culture in recent times has been greatly hampered by vulnerable diseases and lack of suitable feed. Hence the export of shrimps has attained decreasing phase. Shrimps appearing bright are generally considered to be of good quality. So developing a feed that has high pigmentation value is equally essential as a nutritionally good feed. In fact carotenoid pigments (Astaxanthin) are essential substances in the dietary requirement of shrimps. Besides its role in body pigmentation, astaxanthin is a potent antioxidant and has also been suggested to function as a vitamin-A precursor. Copepods are important crustaceans studied because of their key role in ecology, trophic biology, fisheries management, in modeling the flow of energy and matter, ecotoxicology and aquaculture. This paper discusses various aspects of the state of knowledge of copepod culture at large scales and provides the scientific community with ideas and concepts that could improve and quicken the development of copepod mass cultures. The aim of the present study was to gain knowledge on survival and pigmentation effect of copepods on black tiger prawn (Penaeus monodon). The results of the present study inferred that the shrimp larvae fed with copepod showed rapid increase in growth, weight and pigments.





**"AQUACULTURE AND FISHERIES: DEVELOPMENT AND SUSTAINABILITY** 

Workshop Schedule

8-2020 3.00 PM

14-08-2020 (Friday) 2.00 PM - 3.00 PM

15-08-2020 (Saturday) 2.00 PM - 3.00 PM Dr. A. SAIT SAHUL HAMEED

DF. A. SAITT SAITUL HANDLED OIE Expert & FNAAS, Tata Innovation Fellow (DBT – Govt. of India) Associate Professor of Zoology (Rtd.) Coordinator, Aquatic Animal Health Laboratory (NABL Accredited), OIE Reference Laboratory, C.Abdul Hakeem College, Vellore

Dr. K. ALTAFF

Dr. K. AL LAFF Professor, Department of Marine Biotechnology AMET Deemed to be University Kanathur, Chennai – 603112, India.

# Dr. D. DEBORAL VIMALA Principal Scientist, Social Science Division (SSD), ICAR-CIBA,

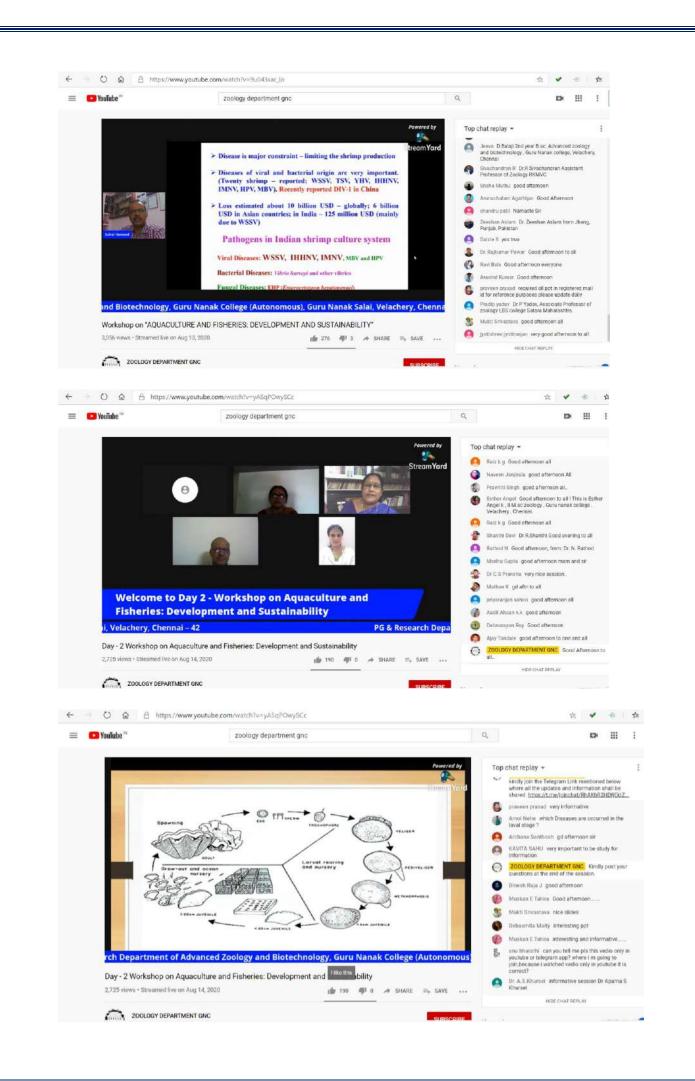
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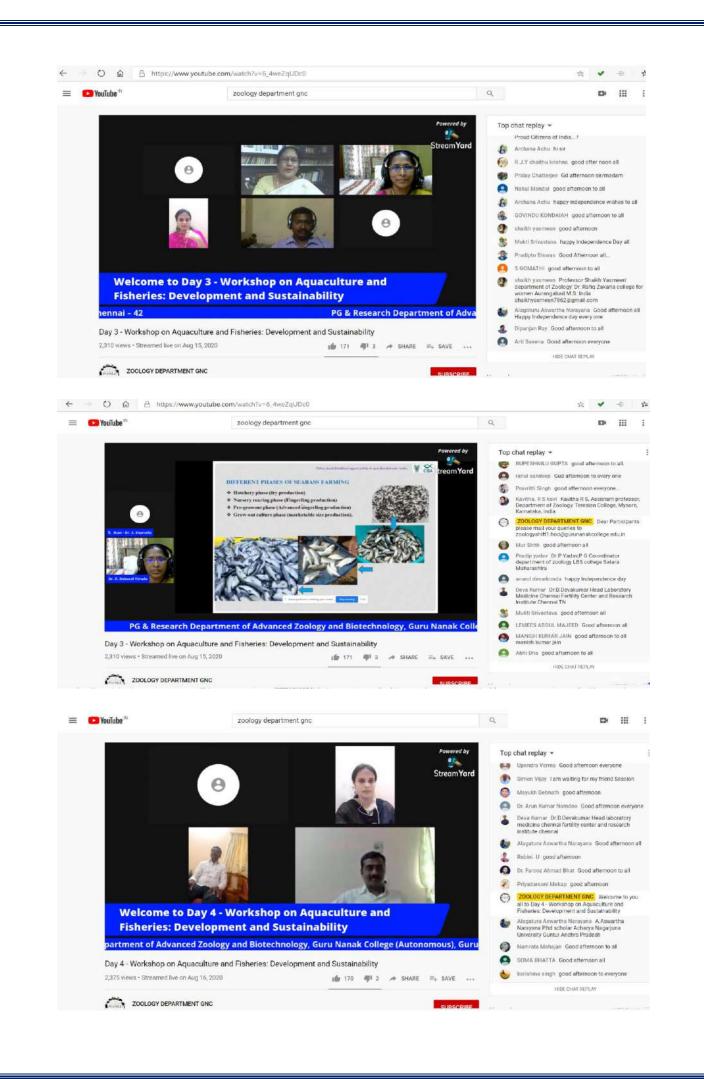
"Viral Disease Management in Shrimp

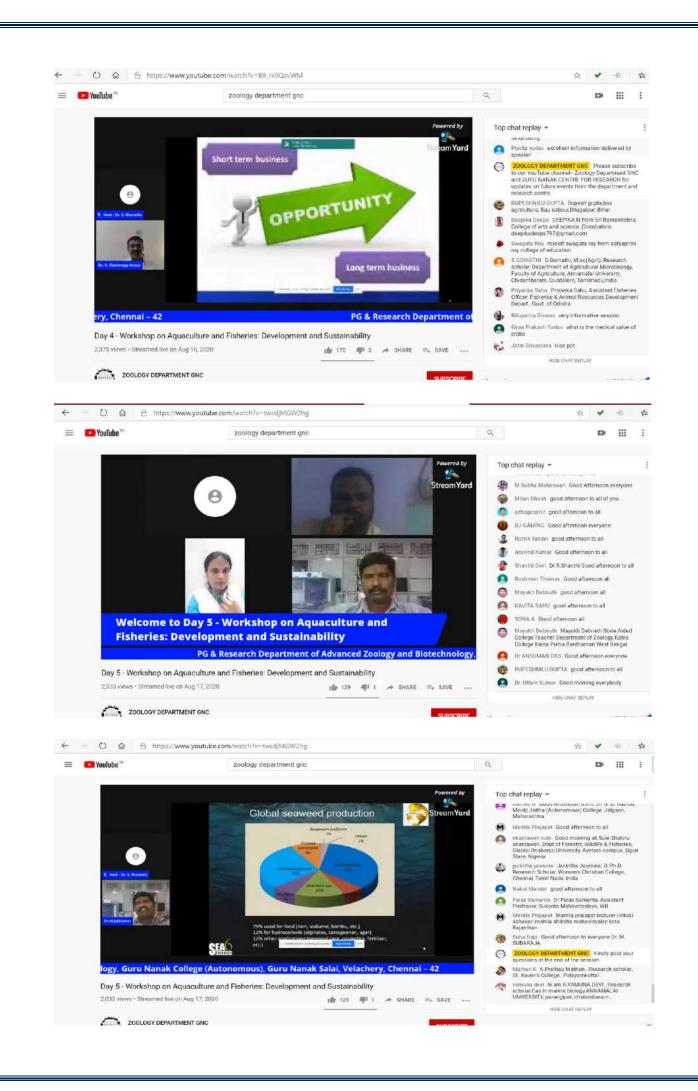


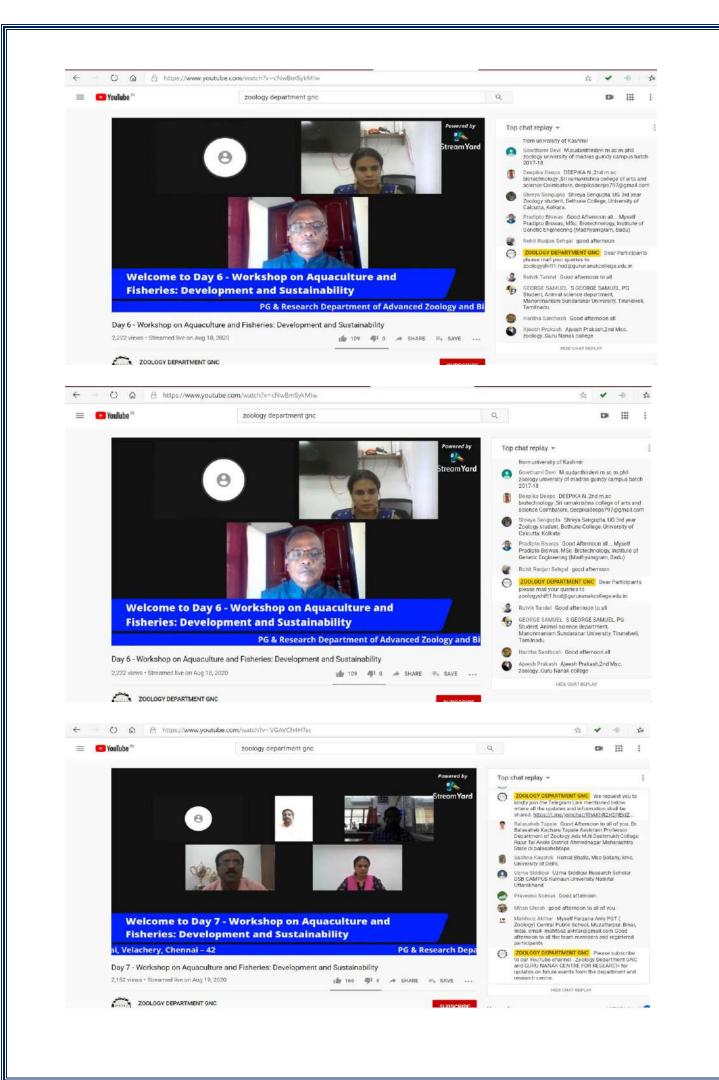
### (4) PHOTOS













## (5) CERTIFICATE COPY



