



CIBA NEWS

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CENTRAL INSTITUTE OF BRACKISHWATER AQUACULTURE, CHENNAI

RESEARCH HIGHLIGHTS

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Research Highlights

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INSTITUTIONAL CONSULTANCY SERVICE FOR WORLD BANK ASSISTED SHRIMP AND FISH CULTURE PROJECT AT WEST BENGAL AND ORISSA



Grow-out shrimp culture system at Digha

The Central Institute of Brackishwater Aquaculture was assigned a consultancy programme on environmental monitoring of shrimp culture by the Department of Agriculture and Cooperation (DAC), Ministry of Agriculture, Govt. of India. The objectives of the assignment are to monitor (i) the positive and negative impacts of shrimp culture on environment (ii) the environment's impact on shrimp culture and (iii) to develop site-specific environmental management plans based on the monitoring results. The study includes long-range environmental impact study

using remote sensing as well as study of impact on the immediate environment. Under this programme there are four project sites viz., Canning Dadanpatra, Digha and Dighirpar in West Bengal and two project sites in Orissa viz., Jagatjore and Banapada. Collection of base-line data before the initiation of culture operations, which formed the Phase I of the study, has been completed in all the sites during May-June 1998. Thematic maps for the sites were also prepared using remote sensing. Phase II of the study is spread over the next three years and pertains to the monitoring of the environment

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Grow-out shrimp culture system at Canning.

during the culture operations. For the collection of base-line data, sampling stations of the project sites were intake, outfall, upstream/downstream of outfall, reservoir outlet, inlet and outlet of biopond and culture ponds. The parameters monitored were: changes in land use pattern in the adjacent populated areas; impacts on soil and ground water quality and agricultural productivity; impacts due to closure/diversion of creeks; quality of intake and waste water in terms of pH, salinity, Total Suspended Solids, Biological Oxygen Demand, Chemical Oxygen Demand, dissolved and particulate nutrients (nitrogen, phosphorus, potassium, nitrite and

nitrate), ammonia and hydrogen sulphide, pesticides and heavy metals; biological environment in terms of phyto- and zoo-plankton biomass; bacterial population, macrophyte biomass; macro invertebrate population and fish species composition.

The scientific personnel involved in the consultancy are: Dr. L.H. Rao, Dr. P. Ravichandran, Shri M. Kathirvel, Dr. S. Kulasekarapandian, Shri R. K. Chakraborti, Shri S. Srinivasagam, Dr. B. P. Gupta, Dr. K. O. Joseph, Dr. S. S. Mishra, Dr. K. K. Krishnani, Dr. M. Muralidhar, Dr. Imelda Joseph, Dr. C.P. Balasubramanian and Shri A. Panigrahi.



Intake point from Matlah estuary, opposite to Canning shrimp culture system.

S/Shri S. Sivagnanam, Ashok Kumar, A. Nagavel and J. Sahayarajan provided the technical assistance.

DIETARY REQUIREMENT OF PHOSPHORUS FOR TIGER SHRIMP *PENAEUS MONODON*

The dietary requirement of phosphorus was determined for juvenile tiger shrimp *Penaeus monodon* by using formulated purified diets with phosphorus levels ranging from 0 - 3% in feeding trials. Results indicated that the phosphorus requirement for the shrimp was within the range of 1.0 to 1.5%.

VISITORS

The following visited the Muttukadu Experimental Station:

- Dr. K. Satyanarayana Rao, Director, Institute of Wood Science and Technology, Bangalore, 10 February 1999.
- A French team comprising of Ms. Sylvie Bichereau, Mr. Dennis Gansier (COFREPECHE) and Dr. Jaques Fuchs (IFREMER), 1 March 1999.

ENGAGEMENTS

Dr. G. R. M. Rao, Director, attended the following meetings / workshops/ seminars:

- 17th meeting of ICAR Regional Committee VIII, at Chennai, 5-6 January 1999.
- 86th Indian Science Congress, at Anna University, Chennai, 3 January 1999.
- Workshop on Forestry, Forest Products and Coastal Population, at CLRI, Chennai, 10-11 February 1999.
- Research Review Meeting of the Dept. of Fisheries, Govt. of Tamil Nadu, at Chennai, 23 February 1999.
- 11th Meeting of Aquaculture Authority, at Chennai, 20th March 1999.



Crab farm at Sonapur near Berhampur in Orissa.

The scientists attended the following meetings/ workshops/ seminars:

- Shri D. Narayanaswamy, Senior Scientist, attended the Technical Workshop on "Reservation in Appointment to Central Civil Services" at New Delhi, 13-15 January 1999.
- Dr. K. K. Krishnani, Scientist(SS), participated in the "International Conference on Environment and Bioethics", at Chennai, 14-16 January 1999.
- Shri J. K. Sundaray, Scientist, participated in the Workshop on the "Use of Gonadal Hormones in the Manipulation of Sex and Growth in Fishes", at Bangalore, 18-19 January 1999.
- Dr. M. Krishnan, Senior Scientist, attended the NATP Workshop on "Research prioritisation of programmes and production systems in different agro-ecological regions", at NCAP, New Delhi, 1-6 February 1999.
- Shri M. Kathirvel and Shri S. Srinivasagam, Senior Scientists, visited Chandrabagha Shrimp Hatchery and crab farms at Sonapur in Orissa, 2-5 February 1999.
- Dr. S. Kulasekarapandian and Dr. M. Natarajan, Senior Scientists, participated in the National Workshop cum Training on Bio-informatics and Statistics in

Aquaculture Research" at CIFA, Bhubaneswar, 2-5 February 1999.

- Dr. A. R. Thirunavukkarasu, Senior Scientist, visited ICAR, New Delhi during 16-19 February 1999, for discussions on the IFREMER project on Seabass Breeding and Culture and Institute's EFC approval for equipment procurement / clearance.
- Dr. P. Ravichandran, Senior Scientist, visited Calcutta on 18 January 1999, in connection with the consultancy programme under the World Bank - assisted Shrimp and Fish Culture Project and delivered a lecture on "Environmental Monitoring".
- Dr. L. H. Rao, Senior Scientist, attended the National Agricultural Technology Project (NATP) Workshop on "Procurement Procedures of the World Bank for NATP Programme" at IASRI, New Delhi, 23 February 1999.
- Dr. B. P. Gupta, Senior Scientist, attended the Fisheries Session of the Workers' Conference of Tamil Nadu Veterinary and Animal Sciences University (TANUVAS), at Chennai, 13 March 1999.
- Dr. M. Krishnan, Senior Scientist, attended the Second Workshop of the Scientists-in-Charge of ARIS, at NBPGR, New Delhi, 5-7 March 1999. He also attended the Seminar on Management of Fisheries in

Small Freshwater Bodies, organised by Fisheries Technocrats Forum at Chennai, 13 March 1999 and presented a paper.

- Dr. S. A. Ali, Principal Scientist and Dr. P. Kishore Chandra, Scientist (SS), attended the Workshop on Strategies for Development of Fisheries in Andhra Pradesh, Kakinada, during 13-14 March 1999. Dr. Ali presented the Lead Paper on Brackishwater Fisheries.
- Dr. S. Kulasekarapandian and Dr. A. R. Thirunavukkarasu, Senior Scientists, participated in the seminar/workshop on Fisheries Management, organised by Dept. of Zoology, Quaid-e-Milleth Govt. Arts College for Women, at Chennai, 29-30 January 1999 and delivered a lecture on "Shrimp Culture Techniques" and "Marine Fish Seed Production Technology" respectively.
- Dr. K. O. Joseph, Senior Scientist and Smt. P. Nila Rekha, Scientist, visited Pondicherry on 18 February 1999 in connection with the M.S.Swaminathan Research Foundation (MSSRF) Aquaculture Programme at Pillaiarkuppam, Pondicherry.
- Shri K. Ponnusamy, Scientist, attended the National Seminar on Development and Transfer of Fisheries Technology held at Fisheries College and Research Institute, Tuticorin, 3-5 February 1999.

HUMAN RESOURCE DEVELOPMENT

- Shri K. Ponnusamy, Scientist, attended the training programme on Computer and Graphics - assisted Multivariate Data Analysis, organised by the Indian Agricultural Statistical Research Institute (IASRI), at New Delhi, 8-20 March 1999.



Shri K. Ponnusamy, Scientist, explaining about the Institute's activities to the visitors at the Exhibition conducted in connection with Eighty-Sixth Indian Science Congress at Chennai.

AWARD

- Dr. J. Syama Dayal, Scientist, was awarded the "Book prize for the Best Presentation of Thesis Research for his Ph.D. Thesis (Veterinary) in Animal Nutrition, at the 31st Annual Convocation of Acharya N.G.Ranga Agricultural University, Hyderabad, 6 February 1999.

TRAINING

Lectures and demonstrations were arranged for the following at Muttukadu Experimental Station:

- 14 students from Dept. of Marine Living Resources, Andhra University, Visakhapatnam, 1 January 1999.
- A batch of B.Sc. students from Sri Y. N. Murthy College, Narsapur, Andhra Pradesh, 2 January 1999.
- 17 students from Godavari Mahavidyalaya, Banpur, Khurda, Orissa, 18 January 1999.
- 6 post-graduate students from Dept. of Polymer and Environmental Sciences, University of Madras, for short-term training in Soil Analysis, 18-23 January 1999.

- 31 students from CIFE, Calcutta, 30 January 1999.
- 17 trainees from CIFE, Lucknow, 1 February 1999.
- 34 students from CIFE, Mumbai, 2 February 1999.
- 21 M.Sc. Zoology students from Dept. of Zoology, University of Madras, Chennai, 10 March 1999.
- 32 M.Sc. Industrial Fisheries students from Madras Christian College, Tambaram, Chennai, 12 March 1999.

- 52 M.Sc. Zoology students from Dept. of Zoology, Pachaiappa's College, Chennai, 15 March 1999.

INDIAN SCIENCE CONGRESS

The Institute participated in the Eighty Sixth Indian Science Congress Exhibition held at Anna University, Chennai, during 3-8 January 1999.

STAFF NEWS

Appointment

- Smt. S.Premavathy, as SS Grade.I, 19 February 1999.

Transfer

- Shri J. K. Sundaray, Scientist, CIBA, Chennai, to KRC of CIBA, Kakdwip, West Bengal, relieved on 26 March 1999.

Retirement

- Shri P. Lakshmanadoss, Technical Officer (T-8), retired on superannuation on 31 March 1999.

Relief

- Dr. R. K. Dey, Principal Scientist, from KRC of CIBA, Kakdwip, West Bengal, to CIFA, Bhubaneshwar, 30 January 1999.



Dr. K. Gopinathan, Senior Scientist, receiving the memento from Dr. R. M. Vasagam, Vice-Chancellor, Anna University, on the occasion of Eighty-Sixth Indian Science Congress celebration at Chennai.

