

# CIBA NEWS

Volume 4, No. 3

**JULY - SEPTEMBER 1999** 

## CENTRAL INSTITUTE OF BRACKISHWATER AQUACULTURE, CHENNAI

### CONTENTS

DG, ICAR, visits CIBA, Chennai

Research Highlights

Experimental trial on fattening of mud crabs

Mud crab induced breeding

**Visitors** 

Engagements

Meeting

Farmers' Meet

**Human Resource Development** 

Training

**NATP Projects** 

Staff News

Appointment

Inter-Institutional Transfer

DIRECTOR GENERAL, ICAR, VISITS CIBA, CHENNAI



Dr.R.S.Paroda, Director General, ICAR, inspecting the CIBA headquarters building site at Santhome, Chennai.

Dr. R. S. Paroda, Secretary, DARE and Director General, ICAR, visited the Headquarters on 2 September 1999 and addressed the scientists and staff. He stressed on greater involvement and dedication for the development of appropriate technologies for sustainable food production. Dr. Paroda also inspected the progress of civil works of Headquarters building at Santhome, Chennai.

### RESEARCH HIGHLIGHTS

# EXPERIMENTAL TRIAL ON FATTENING OF MUD CRABS

The live normal and hard mud crabs are sturdy and meaty and can live for 3-4 days out of water. This capacity of tolerance is very useful during their transport and supply to inland markets by road and rail and foreign markets by air. On the other hand, the "water crabs" (those crabs recently shed off their old shell) are rejected in the export trade on account of their under-weight, lesser meat, weakness and lower survival during their transport. A novel method is practised for water crabs to gain weight rearing them in suitable pond/pen/cage for 3-4 weeks on natural animal diets such as trash fish, molluscan meat and wastes from the slaughter house.

Fattening of mud crab (Scylla tranquebarica) is being practised by

Edited by:

Shri M. KATHIRVEL.

Shri S. SRINIVASAGAM & Dr. (Smt.) MUNAWAR SULTANA,

Senior Scientists

Published by: Dr. G.R.M. RAO. Director.

CIBA. Chennai-34.

Central Institute of Brackishwater Aquaculture,

101-B, Mahalingapuram Main Road, Chennai - 600 034.

small crab farmers in Orissa, Andhra Pradesh, Tamil Nadu and Kerala. However, basic scientific information is lacking on fattening techniques. In order to evaluate the techno-economic feasibility of mud crab fattening methods, an experimental trial on the larger species of mud crab *S. tranquebarica* was conducted by the CIBA and the data on growth and survival of the crabs was recorded.

were stocked in a 60 square metre fenced and pump-fed earthen pond and reared for a period of one month on a daily diet of trash fish @ 10% of stocked biomass. The initial average weight of water crabs was 384 grams, which increased to a final weight of 470 grams by the end of one month, with 81.7 % survival. The average weight gain was 86 grams/crab. The costs and returns analyses are presented below:

A. Fixed cost Rs. 3470 (Fencing material, P.V.C. pipe etc.)

B. Operational cost (a. 60 water crabs=23 kg @Rs.130/kg=Rs.2990

63.4 kg trash fish @ Rs. 15/kg=Rs. 950

c. Labour charges = Rs. 300)

D. Gross profit for one crop Rs.1060 (C-B)

E. Possible crops for one year 10

F. Gross profit for 10 crops for one year

Rs.10600

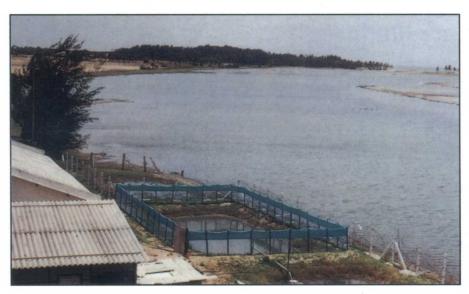
G. Net profit Rs.10006

(After allowing 20 % interest on capital cost)

This experimental trial on mud crab fattening was conducted by S/Shri M. Kathirvel, S. Srinivasagam and Dr. S. Kulasekarapandian, Senior Scientists.

#### MUD CRAB INDUCED BREEDING

 Significant progress has been made in the mud crab breeding programme.
 Captive broodstock of Scylla serrata subjected to unilateral eyestalk ablation spawned under hatchery conditions and about 1.9 million zoea larvae were produced from two successful hatchings.



Mud crab fattening - fenced pump-fed pond at Muttukadu Experimental Station.

#### **VISITORS**

The following visited the Headquarters/Muttukadu Experimental Station:

- S/Shri Md. I. Huq. M.P., Muzibur Rahman Sarvar, M.P., Dr. A. K. M. Mhisuzzaman, Member-Director, Agricultural Research Council and Shri ShahanShah Azad Kabir, Committee Officer, Parliament Secretariat, Bangladesh, 19 July 1999.
- Prof. R. G. Saxena, Member, CACP, Govt. of India, 19 July 1999.
- Dr. P. S. B. R. James, Former Director, CMFRI and Chairman, RAC of CIBA, 26 & 27 August 1999.
- Dr. A. Banerjee, Head, Bio-Organic Division, BARC (Trombay), Mumbai, and member, RAC of CIBA, 26 & 27 August 1999.
- Dr. R. A. Selvakumar, Assistant Director General (Marine Fishery), ICAR, New Delhi, 26 & 27 August 1999.
- Dr. R. S. Paroda, Director General, ICAR, New Delhi, 2 September 1999.
- Shri. M. M. Mohanty, Principal Secretary, Fisheries & Animal Husbandry Dept., Govt. of Orissa, 30 June 1999.

#### **ENGAGEMENTS**

Dr. G. R. M. Rao, Director, attended the following Meetings / Workshops / Seminars:

- Workshop on Strengthening of Monitoring and Evaluation System of the Department of Fisheries (Tamil Nadu), organised by BOBP at Chennai, 6 July 1999.
- NATP Review Meeting on Implementation of Research Programmes under Production Systems Research, at ICAR, New Delhi, 9 July 1999.
- Thirteenth Aquaculture Authority Meeting, at Bangalore, 6 August 1999.
- Third meeting of the Scientific Advisory Panel of National Agricultural Technology Project (NATP), Coastal Agro-Ecosystem, at CRIDA, Hyderabad, 13-14 August 1999.
- Meeting with the Director, ICAR Research Complex, Goa, regarding research programmes to be taken up at Goa on brackishwater fish / shrimp culture, 1-3 September 1999.
- Workshop on "Prospects and problems of aquaculture development in India" at NCAP, New Delhi, 6 September 1999 and ICAR Directors' Conference at Krishi Bhavan, ICAR, 7-8 September, 1999.

The scientists attended the following meetings / seminars / workshops

- Dr. L. H. Rao, H.O.D., Crustacean Culture Division and Dr. P. Ravichandran, Senior Scientist,



Dr. G. R. M. Rao, Director (third from left) and Shri. M. M. Mohanty, Secretary, Fisheries and Animal Husbandary, Govt. of Orissa (second from left), listening to the mud crab fattening programme being explained by Shri S. Srinivasagam, Senior Scientist (fourth from left), at Muttukadu Experimental Station.

attended the Environmental Monitoring Project (EMP) Meeting (under World Bank - assisted Shrimp and Fish Culture Project of DAC, Ministry of Agriculture), at Hyderabad, 18 August 1999.

- Dr. T. C. Santiago, Senior Scientist, attended the NATP Meeting, at New Delhi, 23 August 1999.
- Dr. B. P. Gupta, Senior Scientist, attended the Seminar on "Official Language Management" at CIFT, Kochi, 18-20 August 1999.
- Shri M. Kathirvel, Senior Scientist and Dr. I. S. Azad, Scientist, presented the

- project proposals for ICAR AP Cess Fund, at ICAR, Krishi Bhavan, New Delhi, 28-29 September 1999.
- Dr. T. C. Santiago, Senior Scientist, attended the NATP Workshop on Project Monitoring and Management Information System, at IASRI, New Delhi, on 27 September, 1999.
- Dr. B. P. Gupta, Senior Scientist, attended the National Seminar on Planning and Development of Fisheries Research in 21st Century (in HIndi) held at Central Inland Capture Fisheries Research Institute, Barrackpore, on 15 September 1999

and presented a paper entitled "Present Status of Brackishwater Aquaculture and Future Plans".

#### **MEETING**

The Fifth Meeting of the Research Advisory Committee (RAC) of the Institute was held on 26 August 1999. The Chairman, RAC, Dr. P. S. B. R. James, Rtd. Ex-Director, CMFRI, Kochi, presided over the meeting and the Members of RAC viz., Dr. A. Banerjee, Head, Bio-Organic Division, BARC (Trombay), Mumbai, Dr. R. A. Selvakumar, Assistant Director General (M.Fy), ICAR, Dr. G. R. M. Rao, Director, CIBA and Dr. L. H. Rao, H.O.D., Crustacean Culture Division, CIBA and Member Secretary, RAC, attended the meeting. Dr. A. Banerjee (Member, RAC) also visited the Muttukadu Experimental Station on 27 August 1999.

#### **FARMERS' MEET**

A Farmers' Meet was organised at Muttukadu Experimental Station on 11 August 1999. About 40 shrimp farmers from Chennai participated in the Meet. Officials from CIFNET, CMFRI, Tamil Nadu State Fisheries Department, Fisheries Staff Training Institute, Chennai and scientists and technical personnel, CIBA, attended the programme.

# HUMAN RESOURCE DEVELOPMENT

- Dr. P. Ravichandran, Senior Scientist, attended a training programme entitled "Short course on Computer Application in Fisheries" organised by CIFE at Mumbai, 6-15 July 1999.
- Dr. M. Kailasam, Scientist (SS), attended the Training Programme -Technical Workshop on "Reservation in Services / Posts (SC, ST, OBC and Ex-Servicemen), at Centre for Research, Planning and Action, New Delhi, 18-20 August 1999.
- Shri K. Mani, Senior Clerk and Shri P. Srikanth, Junior Clerk, attended a training programme entitled "Application based Orientation Programme on Establishment Rules and Development, Pune, during 13-17 September 1999.



Dr.G.R.M.Rao, Director, presenting the paper in the Workshop on Prospects and Problems of Aquaculture Development in India, at ICAR, New Delhi.

#### **TRAINING**

- A short-term training programme on Brackishwater Finfish Breeding and Culture - Lates Calcarifer was conducted during 21-30 July 1999, at Muttukadu Experimental Station.
- A short-term training programme on Shrimp Diseases and Health Management was conducted at Muttukadu Experimental Station, during 19-28 August 1999.
- A short-term training programme on shrimp breeding and hatchery technology was initiated at Muttukadu Experimental Station on 15 September 1999, for a period of 15 days.

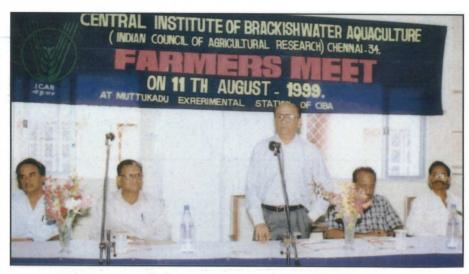
Lectures and demonstrations were arranged for the following at the Muttukadu Experimental Station:

- A batch of 14 B.F.Sc. students from West Bengal University of Animal and Fishery Sciences, West Bengal, 9 July 1999.
- Thirteen trainees from Fisheries Staff Training Institute (Tamil Nadu State Fisheries Dept.), Chennai, 7 August 1999.
- Twelve post-graduate students from Dept. of Zoology, Post-graduate Extension Centre, Vellore, University of Madras, 9 August 1999.
- Twenty nine students (B.F.Sc.) from Fisheries College (TANUVAS), Tuticorin, 21-22 August 1999
- Two batches of trainees (twelve and thirteen trainees) from Fisheries Staff Training Institute, Chennai, on 23 and 28 September 1999, respectively.

#### **NATP PROJECTS**

Two projects were sanctioned under the World Bank aided National Agricultural Technology Project (NATP) under Production System Research Mode as given below:

i) "Shrimp and fish broodstock development and breeding under captive conditions" with a total outlay of 117.08 lakhs and schedule of implementation from 1999 to 2003 (CIBA as lead centre with cooperating centres viz., CMFRI, Kochi, College Fisheries, Konkan Krishi Vidyapeeth, Ratnagiri (KKV); Kerala Agricultural University (KAU).



Dr. G.R.M. Rao, Director (third from left), delivering the inaugural address in the Farmers Meet celebrated on 11.8.99. (Left to right) Shri Jalaluddin, Asst. Director, Dept of Fisheries, Govt of Tamil Nadu, Dr. L.H.-Rao, H.O.D., Crustacean Culture Division, CIBA, Dr. Mathew Abraham H.O.D., Fish Culture Division, CIBA and Dr. A. Ragunathan, Senior Scientist, CMFRI, Chennal

Panangad, Kochi and Orissa University of Agriculture and Technology (OUAT), Berhampur.

ii) Shrimp and fish health management" with a total outlay of 122.16 lakhs and schedule of implementation from 1999 to 2003 (CIBA as lead centre and cooperating Institutes viz., University of Agricultural Sciences (UAS) Mangalore; Fisheries College and Research Institute, Tuticorin (TANUVAS); College of Fisheries, Nellore (APAU) and West Bengal University of Animal and Fisheries Sciences (WBUAFS), Calcutta.

# STAFF NEWS Appointment

 Smt. Sarada Chunduri as Scientist (Agricultural Statistics), 16 August 1999.

#### Inter-Institutional Transfer

- Dr. T. K. Ghosal, Scientist (Animal Nutrition), from NRC on Equines, Hisar to KRC of CIBA, Kakdwip, 5 July 1999.
- Dr. K. P. Jitendran, Scientist (Senior Scale) from IVRI to CIBA, Chennai, 20 July 1999.



The fifth meeting of RAC - (Left to right): Dr. Mathew Abraham, H.O.D., FCD; Dr. L.H. Rao, H.O.D. CCD Dr. A. Banerjee; member, RAC; Dr. P.S.B R. James, Chairman, RAC; Dr R.A. Selvakumar, Asst. Director General (M. Fy), ICAR; Dr. G.R.M. Rao, Director, CIBA and Dr. S.A. Ali, Principal Scientist.