



CIFRI NEWSLETTER

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Number 2

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WORKSHOPS ON BRACKISHWATER FISH FARMING AND RESERVOIR FISHERIES.

The fifth workshop on Brackishwater Fish Farming and the seventh workshop on Reservoir Fisheries were held at Barrackpore from 8 to 10 March 1983.



Inaugurating the joint session, Shri B. C. Sharma, Secretary of Fisheries, Govt. of West Bengal pointed out the vast resources in reservoir and brackishwater sectors and emphasised the need for their optimum utilization. Also seen on the dais are (From L to R) Dr. A. V. Natarajan, Dr. L. N. Mondal, Shri G. N. Mitra and Shri Apurba Ghosh,



Dr. A. V. Natarajan, Director, welcomes the scientists to the inaugural session.

Dr. P. M. Mathew presents the report of Vyttila Centre of the Project.



Fifth Workshop on All India Coordinated Research Project on Brackishwater Fish Farming was held at Barrackpore from 8-9 March, 1982. The Workshop critically reviewed the work done under the project from October, 1981 to December, 1982. Dr. A. V. Natarajan, Director, Central Inland Fisheries Research Institute in his welcome address highlighted the major achievements of the project. He also pointed out certain limitations in respect of prawn culture and other problems of operational nature. The workshop surrounded itself with issues pertaining to selection of farm site, hatchery management, seed resources, ecological studies, nutritional requirements of brackishwater species etc.

The workshop was inaugurated by Shri B. C. Sharma, Secretary (Fisheries) Government of West Bengal. Dr. L. N. Mondal, Vice Chancellor Bidhan Chandra Krishi Vidyalaya, Kalyani, Shri G. N. Mitra, former Fisheries Adviser to Government of India, Dr. P.S.B.R. James, ADG(F), Indian Council of Agricultural Research, Prof. S. K. Moitra, Burdwan University, Prof. N. C. Dutta,

WORKSHOP

Calcutta University, Dr. V. D. Singh, Dy. Commissioner (Fy) Government of India and Prof. (Mrs) Rajyalakshmi, Andhra Pradesh Agricultural University were among the distinguished participants. Many scientists

from CIFRI and State Government officials also attended the workshop. The workshop spanned into three technical sessions.

Project leaders of various centres presented their reports detailing the work done. After elab-

orate discussions, the workshop finalised the technical programme to be followed from 1983 onwards. The programme pertains to assessment of prawn and fish seed potential, relative efficiency of gears for seed collection, nursery rearing of seed, breeding and feeding behaviour of prawns and fishes, creation of seed bank at the Kakinada Centre and culture operations with or without fertilisation. Further the need for ecological studies was emphasised and the Project Coordinator was advised to collect, process and analyse technical data at his level.



Shri Apurba Ghosh, Project Coordinator, AICRP on Brackishwater Fish Farming extended a vote of thanks to the scientists and delegates who attended the joint session. Later, in the technical sessions, he summed up the achievements of the coordinated project. The picture below shows a section of the delegates.

The Seventh Workshop of the All India Coordinated Project on Ecology and Fisheries of Freshwater Reservoirs was held at Barrackpore from 9-10, March, 1983. The workshop recommended among other things : a rationalised stocking policy, better exploitation of lotic sectors, cage and pen culture of suitable fishes in selected reservoirs, better management policies for trash fish dominated reservoirs and evaluation of economic aspects of reservoir fishing. The workshop also approved the technical programme for the reservoirs under the project's fold.

In four technical sessions the delegates discussed the final reports of Nagarjunasagar, Bhavanisagar, Rihand and Getalsud reservoirs. The progress of work at Bilaspur, Ukai and Kangsabati was reviewed by the workshop.

The question of introducing silver carp and other exotic fishes in reservoirs was a subject of animated discussion. Other areas stressed in discussions were the evolution of gear, spawn collection, stocking and the management measures to be taken in reservoirs. Dr. P. S. B. R. James desired that CIFRI might hold a National Seminar on Reservoir Fishery Management to disseminate the knowledge already gathered by the Institute.



Dr. Mathew Abraham presents report of Bhavanisagar Centre.

Dr. P. S. B. R. James, Assistant Director General (Fisheries), ICAR addressing the workshop.



RESEARCH HIGHLIGHTS

LOW INPUT CARP CULTURE

Composite Fish Culture is considered to be a high input technology in view of the high costs of the most important material input *viz.*, supplementary feed, which accounts for about 70% of the total operational expenditure.

Using either nitrogenous or phosphatic fertilisers alone, production of 3985 kg and 3333 kg/ha respectively has been achieved in 9 months' rearing from ponds stocked at 5000 fingerlings/ha in the proportion of catla 1 : rohu 1 : mrigal 1 : silver carp 3 : grass carp 2 : common carp 2 at the Gujarat Research Centre of All India Coordinated Research Project on Composite Fish Culture and Fish Seed Production.

The nitrogenous fertilisers used were cowdung and urea at 8400

and 270 kg/ha respectively while single superphosphate was used as a phosphatic fertiliser at 756 kg/ha. The quantity of aquatic weeds used for grass carp were about 122 kg/ha in each pond. A high survival of over 97% was obtained in both cases.

With a nominal expenditure of Rs. 479.04 on material inputs in a 0.1 ha pond treated with nitrogenous fertilisers, the income derived from sale of fish amounted to Rs. 4241.70. Using the phosphatic fertiliser, the input cost in a 0.1 ha pond was Rs. 376.92 while the sale proceeds of fish were of the order of Rs. 3576.48.

The experiment thus demonstrates that high yields are possible with low inputs as well.

BREEDING OF *M. SEENGHALA*

Successful breeding of *Mystus seenghala* in captivity has been achieved for the second time in a village pond at Yusufpur. The breakthrough in breeding of this fish was reported last year. This year, the fertilised eggs were found in newly formed breeding pits in the pond on 10.3.83. Six mm hatchlings were noticed on 15.3.83. The parent stock is three years old.

SULPHADIAZENE TO CURE BACTERIAL DISEASE

On advice from the Fish Pathology Unit of CIFRI, M/s Matsya Enterprises, a private aquaculture firm in Port Canning could effectively control an uncommon disease infecting *Clarias batrachus* in their ponds by using sulphadiazene. Symptoms of the disease were loss of barbels, reddish swelling at the root of barbel, reddish mouth, fin rot and dermal ulcers.

The distinguished gathering included Shri G. N. Mitra, Dr. Y.R. Tripathi and Dr. V D. Singh who were also the members of Mid-term Appraisal Committee for Coordinated Projects. Dr. G. P. Dubey, Dr. S. K. Moitra, Dr. P. S. B. R. James, Prof. N. C. Dutta, Shri Narayan Prasad,

Dr. S. N. Dwivedi and Dr. L. N. Mondal were among the other notable invitees.

Earlier, welcoming the delegates Dr. Natarajan pointed out the landmarks in the long list of achievements of the project. He also drew the attention of delega-

tes to the major constraints under which the project functioned.

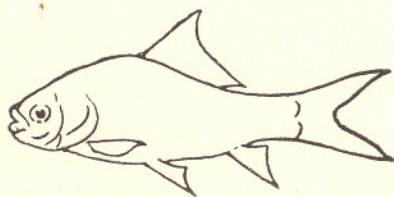
On behalf of the Project Coordinator, Shri S. D. Tripathi summed up the overall achievements of the project. Shri K. K. Ghosh proposed a vote of thanks to the Chair and the delegates.

EXTENSION SCENE

Talks

Five ponds measuring 0.07 ha to 0.1 ha in area were stocked with *Clarias batrachus* @ 3,00,000/ha in January, 1982. Artificial diets comprising carbohydrate and protein in the ratio of 3 : 2 mixed with vitamins and minerals were provided. With the onset of summer algal blooms appeared which were controlled by spraying fresh cowdung @ 20 kg/ha. Soon after, the fishes manifested the symptoms.

The application of oxytetracycline by the farmers could not control the disease and they were advised by CIFRI to use sulphadiazene (May and Baker) tablets (0.5 g) in the diet. The dose prescribed was 100 mg/kg of feed for seven days. After five days' medication, 20% of fish recovered while the rest showed improved conditions. After treatment none of the fish bore any dermal ulcers.



Shri P. K. Pandit, Scientist delivered two lectures "*Singhi o magur chas*" and "Fish diseases and their control" to 35 participants at Raghunathpur F. P. School Singhur, Hooghly on 1.3.83.

Shri U. Bhowmick, Scientist talked on 'Transport of fish seed' to the trainee fish farmers of FFDA, Hooghly on 19.3.83.

Shri P. Das, Scientist, addressed the trainee fish farmers of FFDA and the trainees from the Tamil Nadu Fisheries Department on 22.3.83 and 26.3.88 respectively. The subjects of talks were "Modern aquaculture" and "Air breathing fish culture".

Grameen Mela

CIFRI participated in the *grameen mela* at Serampore, Dt. Hooghly from 10.3.83 to 24.3.83. The Institute's activities were projected through posters, charts, blow-up photographs, models etc. About 2000 people are estimated to have visited CIFRI stalls.

The Institute also participated in the Annual Fair of Vivekananda Institute of Community Service, Manda (Dt. Hooghly) from 25.3.83 to 27.3.83. CIFRI stalls attracted about 10,000 farmers and visitors.

Visitors

Mr. Jyri Juurikkala and Mr. Jorma Neuvoneu from Helsinki University visited the Institute on 8.4.83. Dr. C. R. Price from British Council was at CIFRI on 17.3.83.

TV Programme

Calcutta Doordarshan Kendra telecast a programme '*Mach chaser prasar*' on 2.3.83. The programme, presented under the popular *Pallikatha* series, included a film on 'Composite Fish Culture'. The film was followed by an interview on extension problems on fish culture with S/Shri P. Das, U. Bhowmick, Scientists and Suphal Pakira, a Lab to Land Farmer of Chanditala. Shri P. Chatterjee, Programme Officer, LLP conducted the interview.

MANPOWER DEVELOPMENT

Janos Olah trains CIFRI scientists.

A team CIFRI scientists of have been with Dr. Janos Olah, FAO consultant on fish pond microbiology at FARTC Dhauli. S/Shri R. K. Das, C. S Purushothaman and S. Ayyappan were involved in the microbial analysis of water and sediment samples and study of decomposition rates. Other aspects of environmental monitoring covered during the programme were :

(1) analysis of total bacterioplankton in water using millipore filters (2) diurnal respiration and uptake of ammonia, nitrate, phosphate and oxygen by microbial community (3) chemical demand of oxygen by sediment column and (4) physico chemical parameters and survey of fish pond.

Other scientists of FARTC who attended the training programme are Mr. D. K. Chatterjee, Dr. C. R. Das, S/Shri S. R. Ghosh, Radheshyam and D. P. Chakraborti.

NAARM Training

S/Shri M. A. Khan, S. N. Mehrotra, R. K. Banerjee and M. Kalamurti have undergone the reorientation course at National Academy of Agricultural Research Management (NAARM) at Hyderabad from 9.2.83 to 16.3.83. S/Shri D. P. Chakraborti, S. Radhakrishnan and K. Gopinathan have undergone the course from 23.3.83 to 30.4.83.

STAFF NEWS

Appointments

Smt. Lekha Sanfui Training Assistant (Home Science) KVK, Kausalya gang. 16.4.83

Retirement

Shri R. M. Bhowmick, Chief Training Organiser, KVK/TTC retired voluntarily from the service of CIFRI w.e.f. 30.4.83 (A.N.)

Shri Bhowmick is one of the pioneering CIFRI scientists to develop induced breeding and hatchery systems for the Indian Carps.

Shri R. S. Negi T-1-3 (Driver) at Harwan centre retired from the service on 31.3.83

Transfer

S.K. Wishard Scientist-1 was transferred from Kalyani to Allahabad.

Sukumaran back

Shri P. K. Sukumaran, S-1 is back at CIFRI. He was posted CIFE Kakinada on selection as S-1 through competitive examination. He joined duty at Bangalore on 14.3.83.

George weds

Shri George John, Scientist at Dhauli married Anu on 23.5.1983. CIFRI wishes them a happy wedded life.

NEWS

Global information service for aquaculture

FAO is setting up a world-wide information service for aquaculture through UNDP/FAO Aquaculture Development Coordination Programme. This is a big step towards speedy exchange of technical and other form of information on aquaculture.

The Programme is headed by Dr. T. V. R. Pillai. In an interview with Cedric Dary, Dr. Pillai pointed out that one major constraint to the rapid increase in aquaculture had been the slowness in transfer of technical and other knowledge.

"The free flow of information of this kind is of crucial importance if we are to speed up the expansion of aquaculture" he said. "This we shall now be able to do through the computerised service we are setting up. We shall have a continually growing bank of information of all kinds on aquaculture and the ability to extract and release any of the information required".

Regional centres

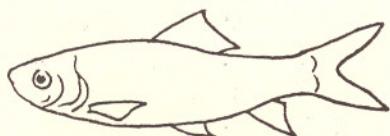
Regional centres in various parts of the world which can contribute to and make full use of the service have already been established by the Aquaculture Development Coordination Programme.

Information will be organised into 'data units' consisting of "chapters" which cover specific subjects such as geographic / climatic data, species, diseases, culture systems, investment, cost and income, technical information and so on. The system is flexible and a data unit can be completed in stages as the data become available.

"When our system becomes fully operative, hopefully in the

latter part of this year, they will have only to ask us for the information they require and it will be retrieved and a printout produced" Dr. Pillai said adding, "The service will be free at first but later we may have to charge a small fee to cover our costs if the demand increases as we expect it to".

— Fish Farming International.



Automation in aquaculture

An experiment to feed and raise fish with the aid of floating robots begins this summer in Saiki Bay, Japan. The robots will emit sound waves to attract the fish and then automatically give out food. If fry get a sound wave of a particular intensity this tends to attract and congregate them. The tests will be conducted by the Japan Society of Industrial Machinery Manufacturers. The companies taking part in the tests include Mitsui Engineering and the Taiyo Fishing Company. It is hoped that results this year will be sufficiently encouraging to move into the next stage which will be the construction of a demonstration plant.

— Fish Farming International

LIBRARY

BOOKS/ New Additions

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The biology of fishes

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Fisheries ecology

Harris, Cyril C.
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Cole, Len
Fishing all waters

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Sharma, Uma and S. P. Grover
An introduction to indian fisheries

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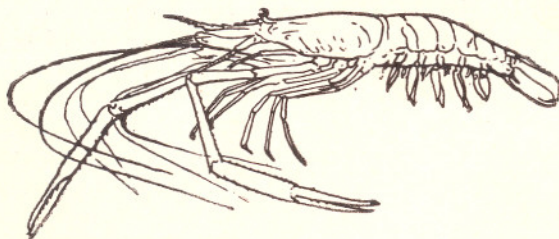
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