

GOVERNOR VISITS BRACKISHWATER EXPERIMENTAL FISH FARM

Shri T. N. Singh, Governor of West Bengal, Shri Provash Roy, Minister for Irrigation, Government of West Bengal and Shri Jyotirmoy Basu, Member of Parliament accompanied by Shri H. C. Moitra, M. L. A. and other local government dignitaries visited the Brackishwater Experimental Fish Farm of the CIFRI in lower Sunderbans on March 7, 1978. Research at this farm has led to development of many important techniques of mono- and polyculture of estuarine prawns and fishes. Recent achievements in the field of induced maturation and breeding of commercially important prawn and fish species are of considerable significance. Current work programmes on brackishwater fish seed prospecting, location of their abundant occurrence and improvisation of collection gear efficiency in addition to other research programmes will lead to rapid development of the brackishwater aquaculture in the country specially in the field of pisciculture in *bheries*, creeks and impoundments abounding in the remote areas of the lower Sunderbans.

Dr. V. G. Jhingran, Director, CIFRI while welcoming the Governor and others at the Kakdwip Inspection Bunglow, highlighted the research accomplishments of the Institute and stressed on the high potentiality of brackishwater aquaculture based on scientific fish farming. Dr. Jhingran pointed out its role not only in augmenting the fish production from such environments but also in upgrading

the socio-economic status of the rural people of the lower Sunderbans.

At the farm site, demonstration of standing crops in the ponds particularly with mixed farming of prawns and mullets and also single species culture of Bagda and Bhetki was witnessed by the visitors. Prawn and mullet seed collected from natural resources and the international award winning films of the Institute were shown to the dignitaries.



Dr. V. G. Jhingran, Director, CIFRI in discourse with Shri T. N. Singh, Governor, West Bengal (Centre) and Shri Provash Roy, Irrigation Minister Government of West Bengal (Left)

SHRI BARNALA UNION MINISTER FOR AGRICULTURE AND IRRIGATION VISITS CIFRI COMPLEX AT DHAULI

Shri Surjit Singh Barnala, Union Minister for Agriculture and Irrigation visited the Fresh-water Aquaculture Research and Training Centre of CIFRI at Dhauli (Orissa) on February 9, 1978. Dr. V. G. Jhingran, Director of the Institute received the Union Minister at the Dhauli Complex and showed him round the different construction activities then in progress at the centre. On his arrival at the Krishi (Matsya) Vigyan Kendra and the Trainers' Training Centre (KVK and TTC) of the CIFRI at Kausalyagang (Orissa), Shri Barnala was explained the scope and the activities of the KVK and TTC. Later the Union Minister was introduced to the scientists of the Institute. He was also shown a netting demonstration of fish cultured by the trainees and the technique of induced breeding of common carp being practised by the fish farmers. The Minister showed much interest in the museum of the Krishi (Matsya) Vigyan Kendra and Trainers' Training Centre.



Shri S. S. Barnala, Union Minister for Agriculture & Irrigation and Dr. V. G. Jhingran, Director, CIFRI going round the KVK & TT Centre museum at Kausalyagang, Dhauli, Orissa

Dr. V. R. P. Sinha Leaves For Bangladesh

Dr. V. R. P. Sinha, Scientist S-3 of the Institute left India on March 14, 1978 on an assignment as a Consultant to World Bank Re-appraisal Mission for Bangladesh.

RESEARCH HIGHLIGHTS

Breakthrough In Breeding Bagda—*Penaeus Monodon*

The CIFRI has succeeded in inducing maturation and breeding of the marine tiger shrimp, *Penaeus monodon* — commonly known as 'BAGDA CHINGRI' — in impounded brackishwater ponds in Sunderbans. The shrimp, amongst the marine

products, is India's largest foreign exchange earner. Bagda naturally matures and breeds in seas. Recently, the scientists of this Institute procured completely immature specimens from virtually freshwater ponds in Sunderbans, induced their maturation in a

brackishwater pond at the Bakkhali Fish Farm of the Institute by eye-stalk ablation and made three specimens breed in a cloth enclosure placed in a split bamboo cage installed in a creek. Eye-stalk ablation is a technique in which an incision is made on the eye-ball and the contents of the eye-stalk are squeezed out for faster gonadal development.

It is envisaged that when the experimental phase is over and the technique commercialised, pond-reared bagda will be bred in the same manner as other commercial fish species are bred in ponds. Such a development will give a boost to bagda culture and with selective stocking of *bheries* in West Bengal, the production of bagda will be enhanced significantly.

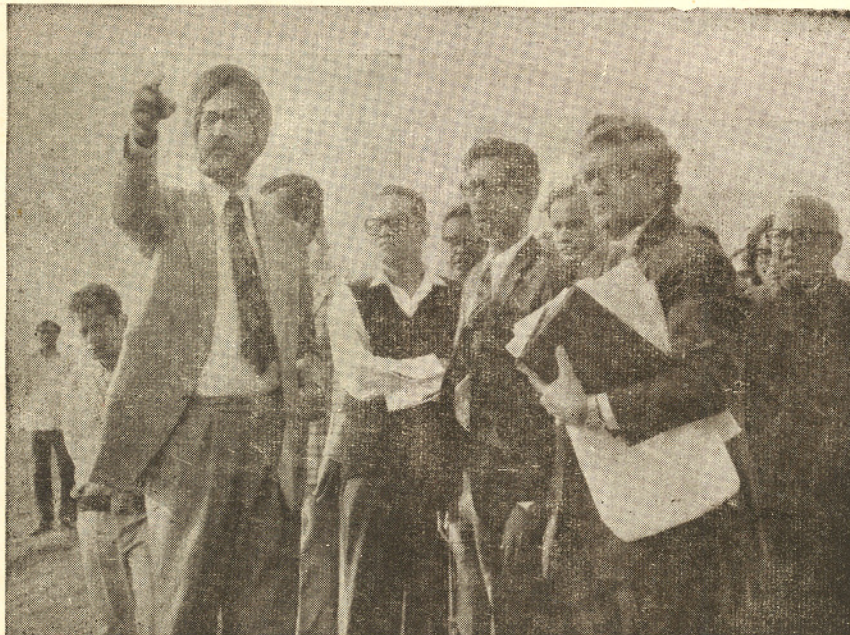


Shri S. S. Barnala and others at the KVK & TTC farm site at Kausalyagang (Dhaulti), Orissa

The CIFRI has already developed a technique of producing about 1,000 kg/ha/yr of bagda in three crops from brackishwater ponds.

Cheaper Diet For Magur And Singhi Culture

Major input in the intensive culture of commercially important air-breathing catfishes magur (*Clarias batrachus*) and singhi (*Heteropneustes fossilis*) — is the supplementary feed as in any other fish culture system. But recently, the scientists of this Institute have shown that these fishes are capable of assimilating non-protein nitrogen from urea. In the course of experiments which continued for four weeks, the fishes were fed with standard diet in which upto 50% of the protein component was replaced by non-protein nitrogen from urea. Neither toxicity was apparent nor any mortality of the test animals was recorded during the course of experiments. This observation is significant since the possible replacement of 50%

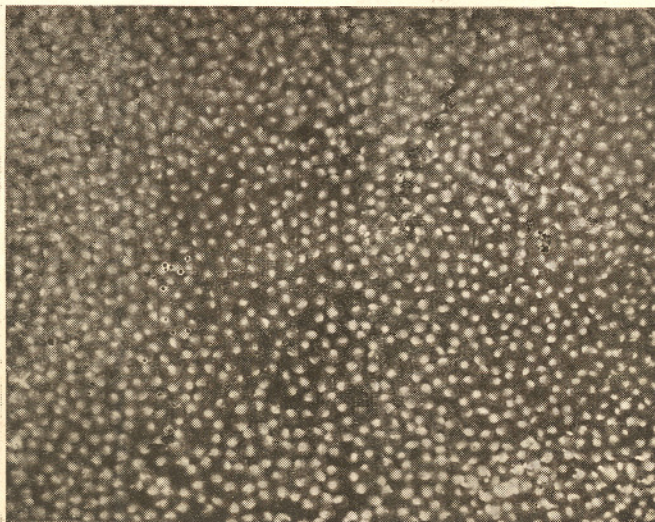


Shri S. S. Barnala discussing with Dr. V. G. Jhingran, Director and Dr. V.R.P. Sinha, Officer-in-Charge, Freshwater Aquaculture Division at the KVK & TTC farm site at Kausalyagang (Dhaulti), Orissa

protein by urea in the supplementary diet used in the culture of magur and singhi would considerably reduce the cost of production.

Successful Breeding of Schizothorax

Schizothorax niger which forms an important fishery in the Himalayan region has been bred successfully for the first time by stripping under laboratory conditions and eggs reared in still and flowing waters. The incubation period was found to range between 10 and 15 days in still water while it was more than 40 days in running water. Percentage of fertilisation and survival from egg to early fry ranged as 90-95 and 85-90 respectively. These successful results throw open the possibilities of large scale breeding of *Schizothorax* sp. and also provide new avenues for developing the fishery of the species in the upland waters.



Artificially fertilised eggs of *Schizothorax niger*

MASS CULTURE OF DAPHNIA ROSEA

Mass culture of *Daphnia rosea* has been successfully achieved under controlled conditions in the laboratory at the Srinagar Research Centre of the Institute. A peak population of 8,172 organisms/l could be obtained from an initial inoculum

of 50 organisms/l in about 2 weeks time using filtered pond water as an ambient medium. The technique employed was the use of cow-dung extract @ 2 g/l every third day as a source of nutrient. Under



Shri T. N. Singh, Governor, Shri Jyotirmoy Basu, M. P. and Dr. V. G. Jhingran, Director with others at the Kakdwip Inspection Bunglow



Daphnia rosea with developing young ones in the brood chamber

favourable conditions, during the course of the experiment, *D. rosea* was found to have 6 pre-adult and 12 post-adult instars. Each female produced 10-25 broods at a time and an average of 78.67 broods during its life span of about 18 days.

The technique of mass culture of *Daphnia rosea* offers possibilities of its utilisation as feed for *Schizothorax niger* — a fish of upland waters with great commercial importance, is further being improved.



Shri Jyotirmoy Basu, M. P. examining a few prawns harvested from farm pond

TRAINING IN BRACKISHWATER PRAWN AND FISH FARMING

A 10-week field oriented training in brackishwater prawn and fish farming was organised at the Brackishwater Experimental Fish Farm of the Institute at Kakdwip (West Bengal) during December 26, 1977 to March 5, 1978. Officials from the State Fisheries Department, Orissa, State Fisheries Development Corporation, West Bengal and a private entrepreneur of West Bengal received the training. Immediate impact of the training has been the initiation of brackishwater prawn and fish farming on scientific lines in lower Sunderbans by the private pisciculturist — a participant in the training.



Governor, Shri T. N. Singh giving an appreciative look at the freshly collected prawn and fish seeds

STAFF NEWS

WEDDING

Shri Utpal Bhowmic, Scientist S-1 of the Institute married Miss Gauri Chakraborty, Assistant Project Director, State Fisheries Development Corporation, West Bengal on the 10th day of March, 1978.

PROMOTION

Promotion of Scientists to next higher grade of Agricultural Research Service

On the recommendation of the Agricultural Scientists Recruitment Board, the following scientists of the Institute have been promoted to the next grade of the Agricultural Research Service with effect from 1st July, 1976.

From Grade S₁ (Rs. 700-1300) to Grade S₂ (Rs. 1100-1600)

Shri G. N. Saha (Agril. Chemistry)
Dr. (Miss) Eva Mitra (Eco. Botany)
Shri S. Patnaik (Eco. Botany)
Shri Tumulur Ramprabhu (-do-)



Shri T. N. Singh, Governor and the members of his party witnessing a netting demonstration at the Brackishwater Experimental Fish Farm, Kakdwip (West Bengal)

From Grade S (Rs. 550-900) to Grade S₁ (Rs. 700-1300)

Shri H. C. Joshi (Agril. Chemistry)
Shri D. P. Chakraborty -do-
Shri S. N. Mehrotra -do-
Shri S. C. Banerjee -do-
Shri R. K. Banerjee -do-
Shri S. C. Thakurta -do-
Shri S. R. Ghosh -do-
Shri R. K. Chakraborty -do-
Shri S. Radhakrishnan (Eco. Botany)

Trainees collecting fish and prawn seeds from the Muriganga creek of the Hooghly estuary



RECENT PUBLICATIONS OF CIFRI

Mitra, Eva 1977

A report on copper sulphate treatments of fishery ponds for the control of weeds 1952-1970 [Bull. Cent. Inland Fish. Res. Inst., Barrackpore, No. 26 (Mimeo.)]

Jhingran, V. G. & B. K. Sharma 1978

Operational research project on aquaculture. [Bull. Cent. Inland Fish. Res. Inst., Barrackpore, No. 27, 6 p. (Mimeo.)]

Jhingran, V. G. & A. V. Natarajan 1978

Recommendations for stocking silver carp in Govindsagar (M. P.) and Nagarjunasagar (A. P.) together with an account of the scope and limitation of silver carp stocking in rivers and reservoirs in India. *Ibid*, No. 28, 7 p. (Mimeo.)

Jhingran, V. G. & K. L. Sehgal 1978

Note on the breeding care and management of common carp (*Cyprinus carpio*) Linn. [Misc. Contr. Cent. Inland Fish. Res. Inst., Barrackpore, No. 14, 11 p. (Mimeo.)]



Sample netting being conducted by the trainees in a pond at Brackishwater Fish Farm, Kakdwip (West Bengal)

TRANSFER

The under mentioned transfers were made during the period January-March, 1978.

| Name | Designation | From | To |
|--------------------|---------------|-------------|----------------|
| Shri Balbir Singh | Scientist S-1 | Kalyani | Allahabad |
| Dr. K. G. Rao | Scientist S-1 | Gauhati | Bhubaneswar |
| Shri A. K. Laal | Scientist S-1 | Kalyani | Barrackpore |
| Shri P. L. N. Rao | Scientist S-1 | Puri | Bhubaneswar |
| Shri A. Halim | Senior Clerk | Bhubaneswar | Allahabad |
| Shri Wilson Giria | Junior Clerk | Ranchi | Bhubaneswar |
| Shri Pasupati Lall | Driver | Barrackpore | Burdwan |
| Shri A. M. Patra | Lab. Boy | Burdwan | Jalpaiguri |
| Shri S. C. Balmiki | Lab. Boy | Barrackpore | Nagarjunasagar |
| Shri H. K. Burman | Boatman | Allahabad | Barrackpore |

APPOINTMENT

The following appointments were made during the period January-March, 1978.

| Name | Designation | Place of Posting |
|---------------------------|------------------------|------------------|
| Shri S. L. Kar | Senior Training Asstt. | Kausalyagang |
| Shri B. B. Satpathy | Senior Training Asstt. | Kausalyagang |
| Shri Swapan Kumar Deb | Plumber | Barrackpore |
| Shri Kishan Manjhi | Junior Clerk | Bilaspur |
| Shri Rabindra Tarai | Driver | Cuttack |
| Shri Parsuram Das | Fisherman | Cuttack |
| Shri Bijaya Bhoi | Fisherman | Cuttack |
| Shri Ramesh Chandra Swain | Fisherman | Cuttack |
| Shri Jatadhari Swain | Fisherman | Cuttack |
| Shri Sudarsan Naik | Fishermen | Cuttack |

GRANT OF ADVANCE INCREMENT

Shri M. M. Bagchi, Scientist S has been granted two advance increments with effect from 1st July, 1976.

Agricultural Research Service Probationers

Sarvashri V. K. Bali and B. R. Shirsat have been selected for Agricultural Research Service on the basis of the competitive examination of the Agricultural Scientists Recruitment Board, New Delhi. They have joined this Institute and are presently undergoing training.

CIFRI RECREATION CLUB ACTIVITIES IN BRIEF

Annual Fuction

The annual function of the CIFRI Recreation Club was successfully organised by the Cultural Wing. The highlight of the function was staging of the historical drama 'DEBALA DEVI' by the members of the Club on March 6, 1978. The drama received high appreciation from the large audience.

Annual Sports at a glance

The Sports Wing of the Club completed the 1977-1978 Annual Sports on February 17, 1978 under the management of Shri H. Chakladar, Sports Secretary. The Monish Banerjee Memorial Challenge Shield was awarded to the General Section for winning the Inter-Sectional Soccer Competition. The results of the indoor and out-door sports events were as under.

High Jump

- 1st Shri R. K. Chakraborty
- 2nd Shri S. K. Barua
- 3rd Shri A. K. Banerjee
&
Shri G. C. Pramanick

Long Jump

- 1st Shri R. L. Deb Roy
- 2nd Shri P. K. Saha
- 3rd Shri P. N. Bhattacharjee

50 Meters race

(Children below 7 years)

- 1st Shri Manas Kr. Patra
- 2nd Shri Shyamal Bhanja
- 3rd Shri Mukul Das

75 Meters race

(Children 7-12 years)

- 1st Shri Gautam Dehadrai
- 2nd Shri Sanjib Saigal
- 3rd Kum. Manisha Roy

25 Meters race (Ladies) (with burning candle)

- 1st Miss Bulbul Mondal
- 2nd Smt. Sandhya Mazumder
- 3rd Smt. B. Roy

75 Meters race (above 35 years age)

- 1st Shri A. K. Ghosh
- 2nd Shri M. L. Biswas
- 3rd Shri G. Lahiri

300 Metres race

- 1st Shri H. Banick
- 2nd Shri P. K. Saha
- 3rd Shri R. N. Saha



Shri K.K. Sukumaran, Scientist S-2, explaining the characteristics of a brood fish (common carp) to Shri S. S. Barnala, Union Minister for Agriculture & Irrigation at KVK & TT Centre, Kausalyaganj (Orissa)

100 Meters race

- 1st Shri P. K. Saha
2nd Shri R. N. Saha
3rd Shri M. K. Bala

Foot ball Kicking

- 1st Shri H. Banick
2nd Shri D. Chatterjee
3rd Shri A. K. Banerjee

Slow Cycle race

- 1st Shri S. N. Sadhukhan
2nd Shri R. R. Mukherjee
3rd Shri S. Das Gupta

Mugical Chair
(for Ladies)

- 1st Smt. Sandhya Mazumder
2nd Miss Namita Chaudhury

Shot Put

- 1st Shri D. K. Acherjee
2nd Shri P. N. Bhattacharjee
3rd Shri A. K. Ghosh

Cards (Contract)

- Winners - Shri K. K. Ghosh &
Shri R. N. Pal
Runners - Shri H. K. Nath &
Shri H. B. Sutar

Auction

(Lucky doubles)

- Winners - Shri N. K. Sarkar &
Shri B. C. Bhattacharjee
Runners - Shri J. C. Patra &
Shri T. Roy

Cards (Auction)

(Open doubles)

- Winners - Shri S. N. Burman &
Shri N. K. Saha
Runners - Shri K. S. Banerjee &
Shri T. Chatterjee

(Fish)

- 1st Shri S. K. Dutta
2nd Shri G. Lahiri
3rd Shri Lalit Bahadur

Carrom

(Open doubles)

- Winners - Shri R. R. Mukherjee &
Shri P. K. Ghosh
Runners - Shri T. Chatterjee &
Shri A. Biswas

(Single)

- Winners - Shri R. R. Mukherjee
Runners - Shri A. Biswas

Carrom (Lucky doubles)

- Winners - Shri R. R. Mukherjee &
Shri S. Hansda
Runners - Shri A. Biswas &
Shri N. R. Kundu

Table tennis

(Single)

- Winner - Shri S. B. Roy
Runner - Shri M. A. Khan

Chess

- Winner - Shri M. Randhir
Runner - Shri K. K. Ghosh

Tug of War team (Winners)

- Shri G. Lahiri (Captain)
Shri A. K. Sengupta
Shri D. Kumar
Shri N. P. Saha
Shri S. K. Mazumder
Shri Ranjit Kr. Ghosh
Shri M. R. Roy
Shri A. K. Saha
Shri S. K. Roy
Shri B. N. Shaw
Shri J. C. Patra

Valley ball team (Winners)

- Shri R. K. Chakraborty (Captain)
Shri Apurba Ghosh
Shri A. K. Banerjee
Shri M. K. Bala
Shri P. K. Saha
Shri M. R. Roy
Shri M. L. Biswas
Shri S. Hansda

Foot ball team

(General Section)

- Shri G. Lahiri (Captain)
Shri A. K. Sengupta
Shri D. K. Acherjee
Shri H. Chaklader
Shri A. K. Banerjee
Shri T. Chatterjee
Shri M. K. Das
Shri B. K. Sarkar
Shri S. Hansda
Shri A. B. Biswas
Shri S. B. Roy
Shri P. Lahiri
Shri D. Chatterjee
Shri B. Sardar

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