NRCCWF NEWS

National Research Centre on Coldwater Fisheries, Bhimtal
(District Nainital), Uttar Pradesh

Vol. 3, No. 1 January-June, 2000

News from Research Front

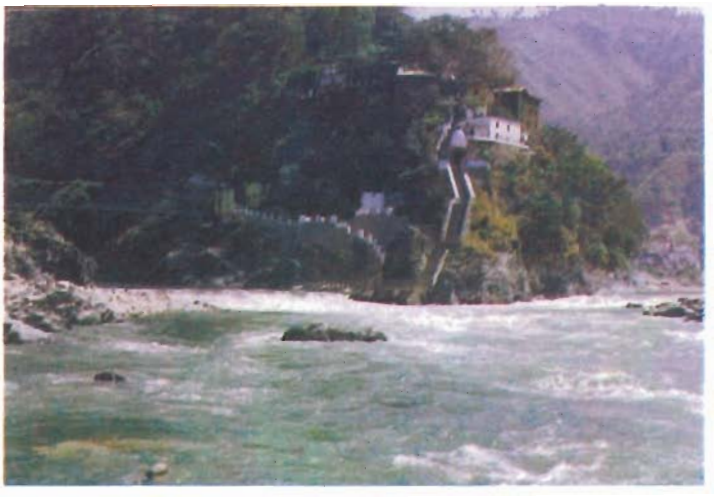
Snow-trout fishery potential in Kumaon waters

Snow trout, *Schizothorax richardsonii*, the most important indigenous fish species found in himalayan waters, inhabiting upper riverine stretches in Kumaon, constitutes a major fishery in these openwaters. The main river systems holding this fishery are the Kali, the Dhauli, the Gori, the Saryu, the Ramganga (E), the Kosi and the western Ramganga and their tributaries. The investigations carried out on resource assessment by NRCCWF during 1999-2000 revealed that in Kumaon its fishery contributed 52.6 - 92.7% to the catches from the streams. However, their weight range was comparatively low ranging between 45 - 300 g. The study indicated that for *S. richardsonii* the major fishing areas were mainly upper reaches of the river Kali between Jauljibi and Tawaghat; the river Gori between Jauljibi and Madkot, the river Ramganga (E) between Thal and Tejam; the river Saryu between Sheraghat and Kapkot and the river Kosi between Khairana and Someshwar. These identified sites besides constituting a major areas for fishermen to catch fish, some of them also serve as a potential seed prospecting sites for snow-trout,

Schizothorax richardsonii. The availability of seed (fry/fingerling) in various river systems and their tributaries ranged between 9-117 numbers m^2.

Biodiversity assessment of Central Himalayan rivers

The institute initiated programme on biodiversity assessment of various river systems and their important tributaries in Central Himalayas (Kumaon and Garhwal hills of U.P.). The drainage system of Kumaon and Garhwal hills in Central Himalays comprises mainly the Kali, the Western Ramganga, the Ganga and the Yamuna with important subsystems the Saryu, the Kosi, the Alaknanda and the Bhagirathi. These sub-systems have numerous tributaries of which the major ones are the Dhauli, the Gori, the Ramganga (E) the Gagas, the Binnau, the Nayar, the Pinder, the Nandakni, the Mandakni, the Bhilangna, the Song and the Tons. Most of these systems originate from glaciers thus maintain low temperature profile in their upper stretches. However, in valleys and plains temperature is relatively higher. The inventory of fish fauna revealed the presence of 25 species from Garhwal region and only 16 species from Kumaon region. The fish catches were mainly dominated by indigenous snow trouts (21.2 - 100.%) and mahseers (3.5 - 56.7%) while other species did not contribute significantly to the catches. The estimated CPUE in these upland river systems ranged from 65 - 1865 g/man/hr. There is no organised commercial fishery but local youth are involved in subsistence fishing which provides them Rs. 40 - 60 per kg of fish in the local market. In terms of natural feed resources the systems are rich in bottom fauna represented by mayflies and caddis larvae. The productivity of plankton populations are low but significant epiphytic flora comprising members of bacillariophyceae, chlorophyceae and cyanophyceae are recorded.



From Director's Desk

Dear Reader,

In the recent summer the country in various parts has witnessed unprecedented drought which indicates our freshwater resources are not getting suitably recharged. There are many ecological factors responsible for this kind of situation. But at the same time we have to keep in mind that freshwater resources world over are finite and our country is no exception. Therefore, most urgent thought has to be given to sustainable water management in case we have to meet the requirements of increasing human population from ecosystem and the biodiversity on which man sustains. As population grows the average amount of renewable freshwater availability per capita declines. It has been reported that when freshwater availability falls below 1000 cubic meters per capita per year, countries experience chronic water scarcity, in which the lack of water begins to hamper economic development, human health and well being. For fishery development, both the quantity and quality of water are important. During the last one-decade, inland fisheries resulted in an unprecedented growth rate. However, this growing demand for water from this expanding sector needs careful evaluation because this renewable resource is under tremendous demand from other priority and competing sectors of economy. The existing projections suggest declining trend both in terms of quantity and quality, in both cases the fishery will suffer. Under various aquaculture systems ranging from intensive, extensive and high-tech, using various cultivable species of fin and shell fish, it has been estimated that for production of one metric tonne of these species the water requirement will range from a minimum of 50 cubic meter to a maximum of 43,000 cubic meter. The lowest water requirement per unit production is for farming air-breathing catfish *Clarius batrachus* while highest water demands are for carps and shrimps in intensive flow-through systems. Further, if we compare water requirements and production loading from other user sectors, the position of aquaculture is not very encouraging. For one tonne production of alcohol, cotton, paper, steel and petroleum the water requirement is in the range of 8-810 cubic meter while for aquaculture (different species and systems) the requirement is in the range of 200-55,000 cubic meter. Similarly production loading in terms of Biological Oxygen Demand for textiles, tannery, brewery, paper range from 8-240 Kg BOD/mt while for different aquaculture systems the range is between 200-1000 Kg BOD/mt. Therefore, the water budgeting, its management both interms of quality, quantity and modification of aquaculture system are urgent challenges which the fishery scientists must address on priority to develop alternate action plan otherwise other priority economic sectors will hamper the sustained progress of aquaculture in inland sector.

K. K. Vass

Coldwater Issues/Views

Low-cost fish culture in Kumaon hills

The trials for utilisation of domestic and agricultural by-products for raising fish bio-mass using exotic carps in Himalayan region, were for the first time undertaken by NRCCWF. Due to inherent cold climate, availability of smaller size water bodies, and lower rate of growth, the farming of cold-water fish species couldn't be as attractive as aquaculture in warm waters. Therefore, to popularise rural aquaculture in hills, comparatively better growing exotic carps were used as the candidate species for farming in small irrigation tanks and other water bodies available in Kumaon uplands. A series of experiments were conducted in the selected water bodies located at the altitude range of 1400 - 1700 m asl, in the districts of Nainital and Champawat.

Fish culture activities require minimum inputs interms of feed, fertilizer and manpower as compared to agriculture and allied activities. Creating new fish ponds, of course, is a costly affair but are beneficial as rain water can be harvested in the shallow ditches and newly constructed ponds, which are used for fisheries, irrigation and recharging ground water. The agriculture and domestic by-products like leftover fodder, raw cattle dung, poultry droppings, terrestrial grasses, kitchen refuse etc. can be used in fish farming.

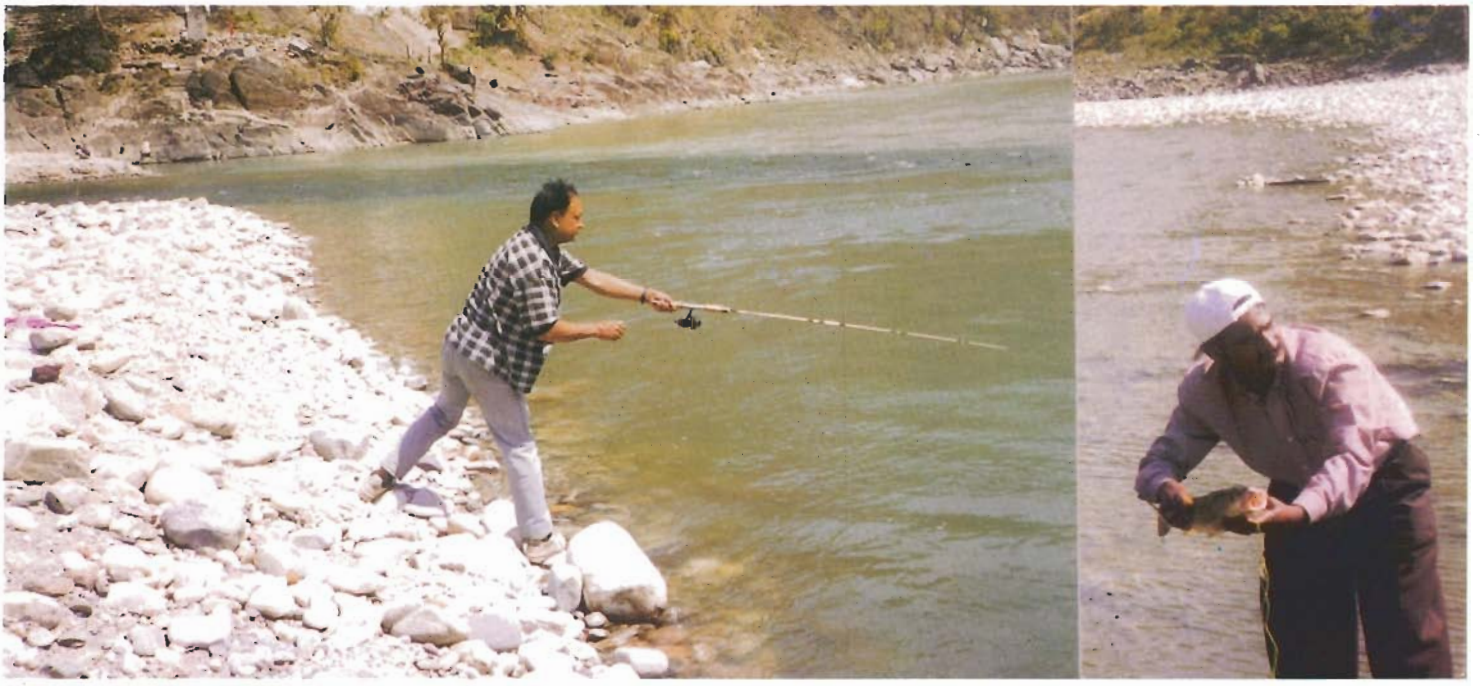
Realising the potential of fish culture in generating additional income to the local farmers, the technology standardised for exotic carp culture in the higher altitudes, was implemented in 17 demonstration ponds in Kumaon Himalayas on trial basis, to assess the adoption level by clients and economic viability of the farming practice. The results obtained initially are quite encouraging and fish production in range of 2020 - 3750 kg ha^{-1} y^{-1} has been achieved with the application of different management practices.

Apart from concentrating only on exotic species, NRCCWF also made attempts to incorporate two indigenous species viz., snow-trout and mahseer in this culture practice. Accordingly the fish ponds located at Sainik school, Ghorakhal (1400 masl) adopted in 1998 were stocked with common carp (25-26%), silver carp (31-33%), grass carp (22-26%), mahseer (7-8%) and snow-trout (5-7%) at the density of 1.6-2.0 fish m^2. The ponds having an area of 400-480 m^2 were regularly fertilized with raw cow dung (RCD) @ 5000 kg h^{-1}, and urea @ 150 kg h^{-1} with lime treatment @ 150 kg h^{-1}. The feeding of young fishes at the initial stages was carried out with mustard oil cake (MOC) and rice polish @ 3% of the stocked bio-mass, it was subsequently replaced by kitchen refuse. The grass carp was fed on available terrestrial weeds mostly grass. The adoption of technology by the farmers can generate additional income for them by utilising low cost inputs. The farming practice developed by the NRCCWF can help in promoting fish farming in hills.

B.C. Tyagi

NRCCWF Participates in Millennium International Angling Festival

The institute in close collaboration with the Kumaon Mandal Vikas Nigam (KMVN) participated in an international Mahseer Angling Festival at Pancheshwar on the river Kali, during first fortnight of April, 2000. The NRCCWF scientists, Dr. Shyam Sunder, Dr. B.C. Tyagi and Dr. K.D. Joshi apart from participating in the festival also organized an exhibition at the camp site, depicting the efforts of NRCCWF in artificial propagation and conservation of golden mahseer. The scientists interacted with the anglers from abroad, and those who participated from other parts of the country apart from local enthusiasts. The institute distributed various pamphlets/brochures and other published material on the different aspects of coldwater fisheries developed by the institute to the dignitaries, sportpersons and other participants. In this angling festival Mr. Vijay Soni, an internationally known angler and President, Indian Fish Conservancy actively participated and he was one of the main organizers of this event.



The international group apart from angling in and around Pancheshwar, went down the river by rafting in order to hook mahseer from different stretches. About 40 anglers fished in 70-km stretch between Pancheshwar to Boom. The water condition in the river Kali was very good for angling. The fish finder Sonar used by Mr. Soni as per reports indicated reasonable quantities of mahseer spread throughout the river, especially in rapids. During this rafting 60 mahseer were caught inclusive of smaller ones of 2 kg each. The biggest mahseer hooked was 20 kg in weight followed by 11 kg, 10 kg, 9 kg, 7.5 kg, some of the fishes escaped due to some problems in angling equipment. During this rafting the anglers also spotted Kaleej pheasants and mountain goats - Ghoorals.

The festival helped to put across a message that the Angling, conducted as per rules, is environmental friendly and the activity provide food, employment and conservation, which are our national priorities. The rural folk could benefit from angling tourism while protecting the endangered mahseer. These stake holders living near to system can guard against poaching, blasting, poisoning, electrocuting, and other destructive methods and also check deforestation.

Extension Activities

The institute participated in the exhibition "FISHENNIUM "-2000 organised on the occasion of 5th Indian Fisheries Forum & Seminar at CIFA, Bhubneshwer during January 17-20, 2000.

The Institute also participated in Kisan-Mela organised by IVRI Mukteshwar at Chokhutia village in Nainital district on Feb. 19, 2000 and displayed its exhibits and publications.

The Champawat centre of NRCCWF participated in 'KRISHI GOSHTI EVAM NIVESH MELA' organised by the district administration between February 22-25, 2000 at block head quarters, Champawat, Lohaghat and Pati.

The NRCCWF organised series of exhibitions at Champawat, Lohaghat and Pancheshwar on March 30, 31 and April 6-7, 2000, respectively which coincided with the inter-

national angling festival. The exhibition was inaugurated at Champawat on 30.3.2000 by Smt. Jayati Chandra, IAS, Commissioner of Kumaon. She took keen interest in the coldwater fisheries research activities of the institute displayed through posters and photographs. A set of institute publications was also presented to the commissioner.

Dr. Shyam Sunder, Senior Scientist delivered a talk highlighting the management and rehabilitation initiatives taken by NRCCWF to conserve the declining stocks of golden masheer. The talk was telecast by Doordarshan under the programme "EARTH MATTERS".

The NRCCWF Champawat Centre displayed institutional activities by putting up a stall at "Ramlila Maidan", Khetikhan on June 26, 2000 on the occasion of District exhibition of Agriculture, Horticulture and Livestock. The stall put up by the institute drew large number of visitors.

Visits

Many dignitaries paid visit to our field Centre and Chirapani experimental fish farm located at Champawat district of U.P. and they appreciated the efforts put in by the scientists of NRCCWF in promoting coldwater fisheries aquaculture in hill regions of Kumaon. Shri S.K. Maheshwari, IAS, District magistrate, Champawat on Feb 3, 2000, Shri Bachi Singh Rawat, Hon'ble Minister of State, Science & Technology, Govt. of India on Feb. 16, 2000 and Shri A.R. Mallick, CDO, Champawat on June 28, 2000.

Awards

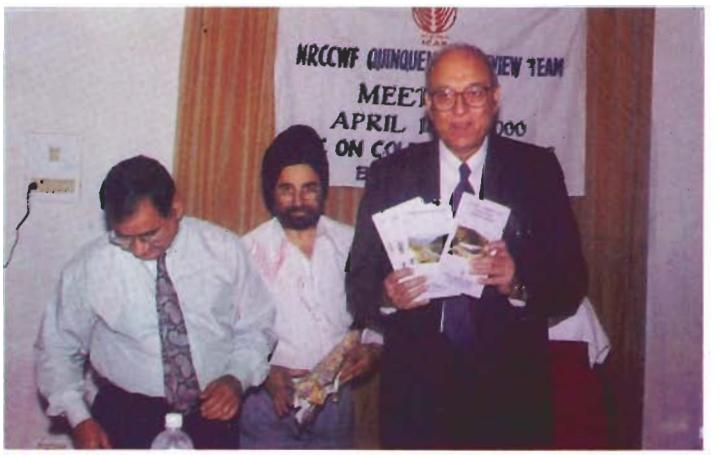
One of our colleagues, Shri Madan Mohan, Principal Scientist was awarded Ph.D. degree by CCS University, Meerut in March, 2000, for his thesis on "Pre-impoundment, bio-ecological characteristics of river Gaula in Kumaon Himalayas"

The Association of Aquaculturists, Bhubeneshwar, India conferred a Honorary Fellowship to Dr. K.K. Vass, Director, NRCCWF for the year 2000 in recognition of his contribution to Aquaculture and Fisheries Science.

The Nature Conservators of India, Muzaffarnagar, elected Dr. K.D. Joshi, Scientist as a Fellow of the organisation through a resolution of their Executive Council dated April 24, 2000.

Publications

The QRT Chairman, Dr. M.Y. Kamal released the fourth issue of NRCCWF - NEWS and MEMORANDUM depicting institute's research achievements for last five years. In addition to these, three (3) pamphlets viz., NRCCWF profile; Flow-through Hatchery for Mahseer; Wetlands of Kumaon; were released by Prof. D.P. Zutshi, member QRT. Another set of three (3) pamphlets viz., NRCCWF Extension services; Streams of Kumaon; Himalayan Environment & Fishery; were released by Prof. C.S. Singh, Member QRT. All these releases were made on April 18, 2000.



Review of NRCCWF Performance

The ICAR has constituted a Quinquennial Review Team to assess the research achievements and related activities of this institute for the period between 1994 to 1998. The team under the chairmanship of Dr. M.Y. Kamal, Vice-Chancellor, S.K. Agricultural University, Srinagar, comprises Prof. H.R. Singh, Allahabad University, Prof. C.S. Singh, Ex-Dean, G.B. Pant Agriculture University, Prof. D.P. Zutshi, Ex-Director CORD, Kashmir University, Shri K.K. Chaudhury, Director Fisheries, Arunachal Pradesh. The committee had its first meeting at Bhimtal on April 18-19, 2000 in which different projects were critically evaluated by the team members. The NRCCWF is very keen to have the necessary advice and guidance from the team.

Staff News

One of our scientist colleague Dr. S.K. Bhanja who worked with dedication at our Champawat Field Centre for five years, got transferred to Central Avian Research Institute, Izatnagar. He was releaved from this institute on April 6, 2000. The NRCCWF family wishes him well and better scientific pursuits at the new institute.

Meetings

Staff Research Council Meeting

This important meeting of the institute was held on 22-24 May, 2000 under the chairmanship of the Director NRCCWF. Dr. V.R. Chitranshi represented the SMD from ICAR Hq. at the meeting. In this meeting progress made during the year under each project was evaluated and the project programmes for the year 2000-2001 finalised and approved.

Rajabhasha Activities

Quarterly meetings of Rajbhasha implementation cell of the institute were held on regular basis. In the meetings action taken reports were discussed and progress reviewed in achieving the national targets for implementation of this national policy. It was decided to hold workshop in Hindi. Since more than 80% of the staff have acquired working knowledge in use of Hindi, the concerned authorities at ICAR have recommended this institute for notification in the Gazette of Govt. of India in pursuance to sub-rule 4 of rule 10 of the Official language, rule 1976.

NRCCWF takes initiative to forge linkage in North-East

In order to assess the requirement of R&D support needed in the Coldwater Fisheries sector in the North-eastern region, the NRCCWF took an initiative of fixing the second meeting of its QR team at Itanagar, Arunachal Pradesh. This meeting was held between June 19-20, 2000 in close collaboration with the Govt. of Arunachal Pradesh. Presiding over the inaugural function of this two day meeting the Hon'ble Home and Fisheries Minister, Shri Kameng Dolo said that fisheries has good potential in the state and it could boost the economy of the local people who have been hard hit by the ban imposed on forest. He impressed upon the visiting team under the chairmanship of Dr. Kamal, Vice-chancellor of SKUAST to formulate suitable strategies for coldwater fisheries development in the state. He desired that ICAR through NRCCWF should set-up a field centre in the state and work in collaboration with Fisheries Depart-

ment for providing necessary R&D support in coldwater fisheries. At the function Shri Hage Khoda, the Secretary Fisheries, Arunachal Pradesh expressed similar opinion regarding NRCCWF to locate field centre in the state. Dr. Kamal Vice-chancellor, SKUAST and Dr. K.K. Vass, the Director NRCCWF also addressed the meeting. The members of the QR team along with the Secretary and Director of Fisheries had a meeting with the Hon'ble Chief Minister, Shri Mukut Mithi, he was briefed about various proposed initiatives of ICAR and NRCCWF in extending R&D support to coldwater fisheries in Arunachal Pradesh. He was informed that ICAR will respond appropriately as soon as the necessary proposal is received from the government authorities. On this occasion the Director NRCCWF Dr. Vass presented a set of institute's publications to the Hon'ble Chief Minister for his information. The interactive meeting with the authorities of Arunachal Pradesh and visit to various fishery development sites in Itanagar and Ziro was an opportunity to all the team members who actually assessed the prospects and potentials of coldwater fishery in the state. It is felt that critical R&D support from NRCCWF and suitable financial support will go a long way in producing more fish in the state, which will help in economic development of farmer and at the same time contribute to sustainable food security. The untiring support provided by the dedicated team of officers from the State Department of Fisheries, under the able leadership of their Director, Shri K.K. Chaudhury, was mainly responsible for the grand success of this important meeting.

Human Resource Development

Training

A basic training on "Fish farming in hill regions" was given to 25 farmers including 10 women belonging to Thal, Muwani, Munsyari blocks in the Pithoragarh district between March 24-26, 2000 at our Chirapani experimental fish farm. The training programme was sponsored by NGO of the district.

Shri Ashok Kumar Nayak, Scientist (Computer Application) was deputed to attend a course on "Internet Usage in Agriculture" organised by NAARM, Hyderabad during March 27 to April 1, 2000.

Seminar/Conferences

Dr. K.D. Joshi, Scientist participated and presented a paper at Fifth Indian Fisheries Forum and seminar organised at CIFA, Bhubaneshwar between January 17-20, 2000.

Dr. K.K. Vass, also participated in the forum and seminar between January 17-20, 2000 at CIFA, Bhubeneshawar, he was chairman of a technical session and also member of the plenary committee for formulation of recommendations.

Dr. Madan Mohan, Pr. Scientist participated and presented a paper in the workshop held at Shillong between February 10-11, 2000 organised by NBFGR and NEC.

Dr. K.K. Vass also participated in Shillong workshop between February 10-11, 2000, and was chairman technical session and member plenary committee.

Dr. K.K. Vass participated and presented a paper at national Workshop on "Biodiversity & Conservation of Aquatic Resources with special reference to threatened fish Mahseer" between February 26-27, 2000 organised by M.P. Council of Science & Technology at Bhopal.

Dr. C.B. Joshi, Dr. Shyam Sunder and Dr. K.D. Joshi participated and presented their papers at the national symposium on "Sustainable development and conservation of coldwater fish genetic resources" held at HPKVV Palampur between June 7-8, 2000.

Special Event

The Hon'ble Governor of U.P. Shri Suraj Bhan Ji on May 5, 2000 paid a visit to Naukuchiatal, Bhimtal, on the occasion of First Himalayan Paragliding Carnival - 2000 organised by Kumaon Mandal Vikas Nigam. During the function Hon'ble Governer was briefed by Dr. K.K. Vass the Director, about the main activities of NRCCWF and presented to his excellency a set of publications brought out by the institute in the recent past.

कुमायूँ के जल स्रोतों में स्नो ट्राउट मात्स्यिकी की संभावनाएं

पर्वतीय जल स्रोतों में स्नो ट्राउट (साइजोथोरैक्स रिचार्डसोनी) नामक महत्वपूर्ण देशी प्रजाति पायी जाती है जो कि हिमालय के पर्वतीय नदी प्रणालियों में वास करती हैं। यह कुमायूं के जल स्रोतों की भी मुख्य मत्स्य सम्पदा है। कुमायूं क्षेत्र के अन्तर्गत नदी–प्रणालियों में काली, धौली, गोरी, सरयू, पूर्वी रामगंगा, कोसी तथा पश्चिमी रामगंगा एवं उसकी सहायक नदियां असेला मात्स्यिकी के मुख्य स्रोत हैं। वर्ष 1999–2000 की अवधि में रा.शी.ज.मा.अनु. के द्वारा इन संसाधनों के अभिनिर्धारण पर किए गए अन्वेषणों से पता चलता है कि कुमायूं की नदियों में इस मात्स्यिकी का योगदान 52.6–92.7 प्रतिशत है। यद्यपि कुमायूं की पर्वतीय नदी नालों में इनके भार की सीमा तुलनात्मक रूप से 45–300 ग्राम के बीच थी। अध्ययनों से पता चलता है कि साइजोथोरेक्स रिचार्डसोनी को पकड़ने के लिए जौलजीवि तथा तवाघाट के बीच पूर्वी रामगंगा, सेराघाट तथा कपकोट के बीच सरयू नदी एवं खैरना तथा सोमेश्वर के बीच कोसी नदी प्रमख स्थल हैं। ये मत्स्य कृषकों के लिए मछली पकड़ने के प्रमुख स्थान होने के साथ–साथ स्नो ट्राउट (साइजोथारेक्स रिचार्डसोनी) के लिए संभावित बीज उत्पादन क्षेत्र भी है। विभिन्न नदी प्रणालियों तथा उनकी सहायक नदियों में असेला मछलियों के बीज की उपलब्धता (जीरा/अंगुलिका 9–17 मी² के बीच है।

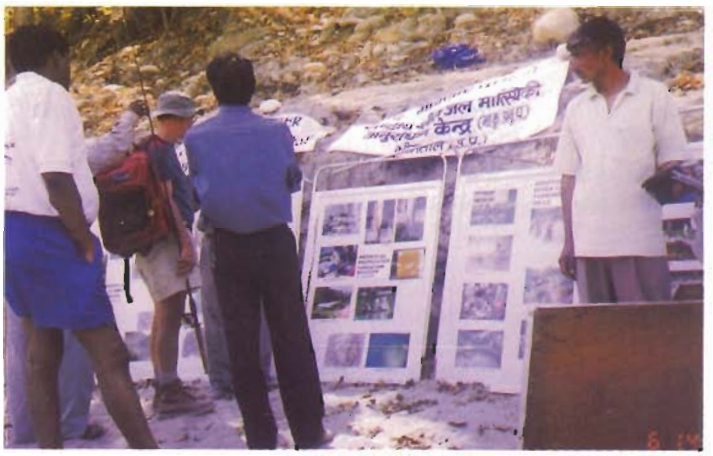
मध्य हिमालय की नदियों की जैव विविधता का मूल्यांकन

संस्थान द्वारा मध्य हिमालय (उ.प्र. के कुमायूं एवं गढ़वाल के पर्वतीय क्षेत्र) की विभिन्न नदी–प्रणालियों तथा उसकी सहायक नदियों की जैव–विविधता के मूल्यांकन पर एक कार्यक्रम शुरू किया गया है। मध्य हिमालय के कुमायूं तथा गढ़वाल की पर्वतीय नदियों में मुख्यतः काली, रामगंगा (पश्चिमी), गंगा तथा यमुना व उसकी उपप्रणालियां–सरयू, कोसी, अलकनंदा व भागीरथी सम्मिलित है। इन उप प्रणालियों की प्रमुख सहायक नदियां–धौली, रामगंगा, मंदाकिनी, भिलगांना, सोंग तथा टोन्स है। इनमें से अधिकांश नदियों का उदगम् ग्लेसियर से होता है, इसलिए पर्वतीय क्षेत्रों में इनका तापक्रम सदैव कम रहता हैं यद्यपि घाटियों तथा मैदानी क्षेत्रों में इनका तापमान अधिक रहता है। इन जल क्षेत्रों में कुल मत्स्य प्रजातियों में से 25 प्रजातियां गढ़वाल क्षेत्र से जबकि केवल 16 कुमाऊं क्षेत्र से प्राप्त की गयी। मत्स्य उत्पादन मुख्यतः स्नो ट्राउट (21.2–100.0 प्रतिशत) एवं महासीर (3.5–56.7 प्रतिशत) मछलियों पर ही आधारित है। जबकि अन्य प्रजाति की मछलियों का व्यापारिक दृष्टि से योगदान इस क्षेत्र में नगण्य हैं। पर्वतीय क्षेत्र की इन नदी प्रणालियों में मत्स्य संग्रहण (सी.पी.यू.ई.) का अनुमान 65–1865 ग्रा./व्यक्ति/घण्टा लगाया गया है। यहां पर कोई संगठित मात्स्यिकी नहीं है, केवल स्थानीय व्यक्तियों द्वारा ही अपनी जीविका–निर्वाह के लिए मछलियां पकड़ी जाती हैं जिनका मूल्य उन्हें स्थानीय बाजार में 40 रु. से लेकर 60 रु./कि.ग्रा. तक मिल जाता है। मछलियों के प्राकृतिक भोजन की उपलब्धता के दृष्टिगत इस क्षेत्र के उपरोक्त जल संसाधानों की तलहटी में इफिमेरोप्टेरा (मेलाइज) व कैडिस फ्लाइज की अधिकता है, किन्तु प्लवकों की संख्या काफी कम है, सूक्ष्म वनस्पति में बैसिलेरियोफाइसी, क्लोरोफाइसी व सियानोफाइसी समूह, मछलियों के मुख्य प्राकृतिक भोजन हैं।

विविध समाचार

संस्थान द्वारा सहस्राब्दी की अर्न्तराष्ट्रीय आखेट महोत्सव में भागीदारी

संस्थान ने अप्रैल, 2000 के प्रथम पखवाड़े में कुमायूं मण्डल विकास निगम के सहयोग से पंचेश्वर में काली नदी पर आयोजित 'अन्तर्राष्ट्रीय माहसीर आखेट महोत्सव' में भाग लिया। रा.शी.ज.मा.अनु. के की ओर से इस महोत्सव में डा. श्याम सुन्दर (वरि. वैज्ञा.), डा. बी.सी. त्यागी (वरि. वैज्ञॉ. व डा. कृपाल दत्त जोशी (वैज्ञानिक) ने भाग लिया। इस अवसर पर इन वैज्ञानिकों ने एक प्रर्दशनी का भी आयोजन किया तथा माहसीर के कृत्रिम प्रजनन व संरक्षण पर संस्थान द्वारा किए गए अनुसंधान कार्यों पर भी प्रकाश डाला। वैज्ञानिकों ने देश के विभिन्न भागों से आए प्रतिभागियों सहित विदेशों से आए आखेटकों से भी विचार–विमर्श किया। इस अवसर पर संस्थान द्वारा शीत जल मात्स्यिकी की अपार संभावनाओं पर प्रकाशित विभिन्न विवरणिकाएं, पर्चे आदि प्रकाशन प्रतिभागियों को वितरित किए गए। इस आखेट महोत्सव पर अर्न्तराष्ट्रीय ख्याति प्राप्त आखेटक तथा भारतीय मत्स्य संरक्षण संस्था के अध्यक्ष श्री विजय सोनी ने सक्रिय रूप से भाग लिया। श्री सोनी इस आयोजन के मुख्य आयोजक थे। अन्तर्राष्ट्रीय आखेटकों ने पंचेश्वर के समीप मत्स्य आखेट करने के साथ–साथ काली नदी के निमले क्षेत्रों में माहसीर पकड़ने हेतु राफ्टिंग भी की। लगभग 40 मत्स्य आखेटकों ने पंचेश्वर से बूम तक के 70 कि.मी. क्षेत्र में मछलियां पकड़ीं। काली नदी को मत्स्य आखेट की दृष्टि से अधिक अनुकूल पाया गया। श्री सोनी द्वारा मछलियों का पता लगाने के लिए 'सोनार' यंत्र का प्रयोग भी किया गया, रिपोर्ट के अनुसार मुख्यतः तेज बहने वाली नदियों में माहसीर मछलियों की संख्या पर्याप्त है। राफ्टिंग के दौरान 60 मछलियां पकड़ी गयीं जिसमें सबसे



छोटी 2 किग्रा. की थी। पकड़ी गयी माहसीर मछलियों का भार 11 किग्रा., 10 किग्रा., 9 किग्रा., 7.5 किग्रा. था। सबसे बड़ी माहसीर का भार 20 किग्रा. था। कुछ मछलियां आखेट के उपकरणों की समस्या के कारण बच निकलने में सफल रहीं। मत्स्य आखेट का यह उत्सव, पर्यावरण की सुरक्षा, रोजगार तथा मत्स्य संरक्षण की दृष्टि से बहुत महत्वपूर्ण रहा और जनमानष तक प्राकृतिक सम्पदा का संदेश प्रसारित करने में सहायक सिद्ध हुआ।

विस्तार सेवाएं

संस्थान ने 5वीं 'भारतीय मात्स्यिकी जनसभा एवं गोष्ठी' के अवसर पर सीफा, भुवनेश्वर में 17–20 जनवरी, 2000 को आयोजित "फिशनियम–2000" प्रर्दशनी में भाग लिया। रा.शी.ज.मा.अनु.के. ने क्रमशः चम्पावत, लोहाघाट व पंचेश्वर में मार्च 30, 31 तथा अप्रैल 6–7, 2000 में प्रर्दशनियों का आयोजन किया जो कि अर्न्तराष्ट्रीय आखेट महोत्सव में आयोजित की गई प्रर्दशनी के समरूप थी। प्रर्दशनी का उद्घाटन 30.3.2000 को कुमायूं कमिश्नर श्रीमीत जयंती चन्द्रा, आई.ए.एस. ने किया। इस अवसर पर उन्होंने कहा कि संस्थान को शीतजल मात्स्यिकी की अनुसंधान गतिविधियों को पोस्टरों व चित्रों आदि के माध्यम से प्रदर्शित करना चाहिए। मण्डलायुक्त को संस्थान द्वारा प्रकाशित प्रकाशनों का एक सैट भी प्रस्तुत किया गया।

रा.शी.ज.मा.अनु.के. के चम्पावत केन्द्र ने 22–25 फरवरी, 2000 को चम्पावत, लोहाघाट एवं पार्टी ब्लाक में जिला प्रकाशन द्वारा आयोजित "कृषि गोष्ठी एवं निवेश मेला" में भी भाग लिया। संस्थान के चम्पावत केन्द्र ने कृषि उद्यान एवं जीव–जन्तु की जिला स्तरीय प्रदर्शनी पर दिनांक 26 जून, 2000 को खेतीखान के रामलीला मैदान पर लगाए गए स्टाल के माध्यम से संस्थान की गतिविधियों को प्रदर्शित किया। संस्थान द्वारा लगाए गए स्टाल का असंख्य आगन्तुकों ने भ्रमण किया।

अतिथि

चम्पावत जिले में स्थित संस्थान के चिरापानी मत्स्य प्रक्षेत्र का अनेक विशिष्ट व्यक्तियों द्वारा भ्रमण किया गया तथा हमारे संस्थान के वैज्ञानिकों द्वारा कुमायूं के पर्वतीय क्षेत्रों में शीत जल मात्स्यिकी के संर्वद्धन हेतु किए गए जा रहे प्रयासों की प्रशंसा की। आगन्तुकों में श्री एस.के. माहेश्वरी (आइ.ए.एस.) जिलाधिकारी, चम्पावत, श्री बची सिंह रावत विज्ञान एवं प्रौद्योगिकी राज्य मंत्री, भारत सरकार तथा इस क्षेत्र के सांसद एवं मुख्य विकास अधिकारी, श्री ए.आर. मलिक मुख्य थे।

पुरस्कार

संस्थान के प्रधान वैज्ञानिक, श्री मदनमोहन को मेरठ विश्वविद्यालय द्वारा पी.एच.डी की डिग्री प्रदान की गयी।

भुवनेश्वर की जल संबर्द्धन परिषद ने डा. के.के. वास को वर्ष 2000 के लिए जल संवर्द्धन एवं मात्स्यिकी विज्ञान पर उनके योगदान के लिए फैलोशिप प्रदान की।

भारत की प्राकृतिक संरक्षण परिषद, मुजफ्फर नगर द्वारा 24 अप्रैल, 2000 को डा. के.डी. जोशी को इस संगठन की कार्यकारी समिति का सहयोग सदस्य चुना गया।

राष्ट्रीय शीतजल मात्स्यिकी अनुसंधान केन्द्र के कार्यों का सिंहावलोकन

भारतीय कृषि अनुसंधान परिषद द्वारा अनुसंधान उपलब्धियों तथा इस संस्थान की अन्य संबंधित गतिविधियों के मूल्यांकन हेतु 1994 से 1998 के बीच एक क्यू.आर.टी. टीम का गठन किया गया है। इस टीम में प्रो. एच.आर. सिंह विज्ञान संकायाध्यक्ष इलाहाबाद विश्वविद्यालय, प्रो. सी.एस. सिंह भूतपूर्व संकायाध्यक्ष, जी.बी. पन्त कृषि एवं प्रौद्योगिकी विश्वविद्यालय, प्रो.डी.पी. जुत्शी, भूतपूर्व निदेशक कोर्ड कश्मीर विश्वविद्यालय, श्री के.के. चौधरी, निदेशक मात्स्यिकी आदि सम्मिलित थे जिसके अध्यक्ष एस.के. कृषि विश्वविद्यालय, श्रीनगर के उपकुलपति डा.एम.वाए. कमाल है। कमेटी की प्रथम बैठक 18–19 , 2000 को भीमताल में हुयी जिसमें कमेटी के सभी सदस्यों द्वारा विभिन्न परियोजनाओं का आलोचनात्मक मूल्यांकन किया गया।

संस्थान समाचार

इस संस्थान के चम्पावत स्थित केन्द्र में कार्यरत वैज्ञानिक डा. एस.के. भांजा का स्थानान्तरण सेन्ट्रल एवियन रिसर्च इन्स्टीट्यूट, इज्जतनगर में हो गया। वे इस संस्थान से 6 अप्रैल, 2000 को कार्यमुक्त हो गए। संस्थान के सभी सदस्यों ने उनके उज्जवल भविष्य की कामना की।

बैठकें

वैज्ञानिक अनुसंधान परिषद बैठक

संस्थान की यह महत्वपूर्ण बैठक निदेशक रा.शी.ज.मा.अनु.के. की अध्यक्षता में हुयी। इस बैठक में आई.सी.ए.आर. के प्रतिनिधि के रूप में डा. वि.र. चित्रांशी ने भाग लिया। इस बैठक में प्रत्येक परियोजना में वर्ष भर में की गयी प्रगति का मूल्यांकन किया गया तथा वर्ष 2000–2001 के लिए नवीन परियोजनाओं को अनुमोदित एवं प्रस्तावित किया गया।

राजभाषा कार्यान्वयन समिति

संस्थान की राजभाषा कार्यान्वयन समिति की तिमाही बैठकें नियमित रूप से आयोजित की गयी तथा संस्थान के 80 प्रतिशत से अधिक अधिकारियों/कर्मचारियों ने हिन्दी का कार्यसाधक ज्ञान प्राप्त कर लिया है जिस कारण परिषद द्वारा संस्थान को भारत सरकार के गजट नियम 10 (4) क अन्तर्गत सम्मिलित कर लिया गया है।

Compiled by : Dr. C.B. Joshi, *Edited by* : Dr. K.K. Vass: *Published by* : Director, NRCCWF, Bhimtal (Nainital) U.P.
Hindi translation by: Dr. C.B. Joshi & Shri Amit Joshi
NRCCWF NEWS is the official document of the National Research Centre on Coldwater Fisheries, Bhimtal
Tel : 05942-47279: Fax : 05942-47279: Grams: MAHSEER BHIMTAL (Nainital)
Printed at : Power Printers, 2/8-A, Ansari Road, Darya Ganj, New Delhi-2. Phone : 3272445