

NFDB Sponsored 5-day Training of Trainers (TOT) program on “Breeding and Seed Production of Important Coldwater Ornamental Fishes” during 23rd to 27th October 2018 at ICAR- Directorate of Coldwater Fisheries Research, Bhimtal, Uttarakhand

NFDB sponsored training programme was organized at ICAR- Directorate of Coldwater Fisheries Research, Bhimtal during 23rd to 27th October 2018 on “Breeding and Seed Production of Important Coldwater Ornamental Fishes”. A group of 15 participants from different states such as Himachal, Assam, Rajasthan, Maharashtra, Madhya Pradesh, Odisha have participated in the training programme. In the inaugural session, Dr. Debajit Sarma, Director, Mrs. Pragyan Dash, scientist and training Coordinator, Dr. S.G.S Zaidi, Sr. scientist and training Coordinator and Co-coordinators Dr. N.N. Pandey, Principal scientist and Mr. A.K.Giri, scientist welcomed all the participants and briefed them about the overall training objectives. The training was focused on the theoretical as well as practical aspects and a one-day field visit to the nearby hill stream resources and local fish farmer’s farm. During the class sessions the lectures were delivered by different scientists. Dr. S.G.S Zaidi, one of the experts in Ornamental fish gave lecture in aquarium management in which he emphasized on the designing of aquarium tanks, aqua scaping, and aquarium management etc. Dr. N.N. Pandey, principal Scientist, delivered a lecture on coldwater ornamental fish diversity and livelihood support to hill community through small scale ornamental fishery in which he stated about the scope of the diversified ornamental fishery, the problems and prospects in coldwater ornamental fish farming. Mrs. Pragyan Dash, scientist briefed about the techniques on success behind breeding and seed production of few indigenous fishes such as loaches, *Barilius*, sucker fish in this Directorate. The next day morning session started

with the practical oriented lecture on ornamental feed formulation and preparation by Mrs. Pragyan Dash followed by the demonstration on feed preparation in feed mill by Mr. Rajesh M., scientist. Mrs Pragyan Dash also delivered a lecture on maintenance of water quality in the aquarium subjecting the parameters interaction and their optimal ranges, principle behind the design of under gravel filter. Dr. R.S. Patiyal, scientist, briefed out the gold fish and koi carp seed production techniques along with the demonstration on selection and segregation of brood, setting up of breeding tanks, injection etc. Mr. A.K.Giri, scientist, emphasized in his lecture about the various types of pumps and filters used in aquarium, the principles behind their operation. Mr. R.S. Tandel, scientist, delivered a lecture on “Ornamental fish health management” in which he told about the commonly found diseases in ornamental fishes, the causes and cure with effective dose calculation of drugs. The practical sessions were carried out on aquarium making, water parameter analysis, under-gravel filter making, fish breeding technique, feed preparation etc. A field visit to fish farmer ponds near Bhimtal in Khutani on 26th October 2018 was organized to demonstrate them on the daily management practices adopted in integrated poultry-fish (goldfish, koi carp) farming. On the last day of training programme Mr. Rajesh M., scientist, demonstrated on the indigenously made RAS system and its components. The participants were accompanied to each lab facilities and mahseer hatchery to have a theoretical and practical exposure on the research aspects carried out in this Directorate. A training manual on “Breeding and Seed Production of Important Coldwater Ornamental Fishes” was also released in this occasion. Training programme ended on 27th October 2018 with valedictory function and distribution of certificates to the participants



Inaugural Function and lectures delivered by scientists



Preparation of aquarium and under gravel filter



Preparation of feed

Local fish farm visit



Exploring RAS System

Group photograph of participants



Valedictory function and experience sharing with trainers