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Sept 1, 1988

To

John A. Daly, Ph.D.  
Program Coordinator  
Office of Science Advisor  
Agency for International Development  
Washington D.C.

C.A.P.

Dear Sir,

Thank you for your letter and informations. I am very much sorry that the interim report of my mahseer ecology project (3E - 30) are not reaching to you. Therefore, I am sending herewith two duplicate copies of the report for your review also publications resulting from the project. Also, kindly note that my project was started from June, 1985 and I have included reports after that date.

Sincerely your's



Tej Kumar Shrestha Ph.D. FLS  
Principal Investigator  
Mahseer Ecology Project.

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- ✦ Order of Gorkha Dakshin Bahu III
  - ✦ Secretary, Zoological Society of Nepal
  - ✦ Foreign Secretary, Zoological Society of India
  - ✦ Member, Asian Fishery Society
  - ✦ Member, World Pheasant Association U. K.
  - ✦ Member International Union of the Conservation of Nature and Natural Resources, National Committee on education Nepal
  - ✦ Editor, Journal of Science and Technology, Nepal
  - ✦ Principal Investigator, Mahseer Ecology Project, Innovative Scientific Research Program.  
Funded by U. S. Agency for International Development

Rec'd in SCI: OCT 7 1988

PROJECT ACTIVITIES IN BRIEF  
1985 to 1987

INTERIM REPORT OF THE MAHSEER ECOLOGY PROJECT (3E - 30)  
GRANTED TO TEJ KUMAR SHRESTHA Ph.D. FLS (London)  
DEPARTMENT OF ZOOLOGY, TRISHUVAN UNIVERSITY, KIRTIPUR CAMPUS  
IN COLLABORATION WITH UNIVERSITY OF ARKANSAS AND U.S.  
FISH AND WILDLIFE SERVICE

CONTENTS

SECTION A : GENERAL AND TECHNICAL REPORT  
SECTION B : TECHNICAL REPORT AND SUPPORTIVE DOCUMENTS

NAME OF THE PROJECT :

PROPAGATION OF MAHSEERS IN HIMALAYAN WATERS OF NEPAL

CHIEF INVESTIGATION : DR. TEJ KUMAR SHRESTHA, M.Sc. Ph.D. F.L.S. (London)

RESEARCH INSTITUTE : DEPARTMENT OF ZOOLOGY  
TRISHUVAN UNIVERSITY  
KIRTIPUR CAMPUS  
KIRTIPUR.

FUNDED BY : US AGENCY FOR INTERNATIONAL DEVELOPMENT

STUDY AREA : TRISULI AND TADI RIVER

PERIOD COVERED : JUNE 30 TO DEC 1987

OBJECTIVE OF THE RESEARCH PROJECT IN BRIEF

BEST  
AVAILABLE

SPECIFIC PROJECT OBJECTIVES

The specific objective of the Mahseer Ecology project in order priority are

- (1). spawning triggers
- (2). hormonal induction
- (3). spawning substrate.

These are listed as follows :

- (1) Determine the habitat conditions and requirements necessary for spawning, fertilization and survival of the young (spawning triggers).
- (2) Determine the effects of eco-physiological factors (temperature, rainfall, turbidity and hormones) on maturation, fecundity and spawning of mahseers (Hormonal induction of spawning).
- (3) Determine whether these reproductive requirement can be incorporated into design and construction of the impoundment, supplied artificially, or whether propagation in a hatchery is required (Spawning substrate).

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3. E. 30

INTERIM REPORT

Period : June 30 to Dec. 31, 1985.

Project : Propagation of Mahseers in Himalayan Waters of Nepal (3E - 30)

Principal Investigator : Tej Kumar Shrestha, Ph.D.

1. Field sites were selected and field personnel trained.
2. Important equipment were purchased.
3. Reference material were collected .
4. Mahseer environment monitoring activity started.
5. Field data concerning mahseer spawning ground were gathered.
6. Mahseer adult, or brood fish were collected.
7. Artificial spawning of the mahseer were successfully conducted.

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INTERIM REPORT

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Period : Jan. 1 to June 30, 1986.

Project : Propagation of Mahseers in Himalayan Waters of Nepal (3E - 30)

Principal Investigator : Tej Kumar Shrestha, Ph.D.

1. Mahseer environment monitoring activity
2. Field data concerning mahseer spawning ground were processed .
3. Mahseer adult, spawn, fry and fingerlings collected.
4. Rearing techniques of fry and fingerlings developed and experimental release of mahseer fingerlings were made in Gokarna Royal Palace Fish Ponds and Kalaju Ponds.
5. A monograph on mahseer spawning was published.
6. Cold water reservoirs, fish hatcheries in United states were visited, under PSTC grant of USAID effective collaboration were developed with U.S. Fish Experts.

INTERIM REPORT

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Principal Investigator : Tej Kumar Shrestha, Ph.D.

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INTERIM REPORT

Period : July 1. to Dec. 30, 1986.

Project : Propagation of Mahseers in Himalayan Waters of Nepal (38 - 30)

Principal Investigator : Tej Kumar Shrestha, Ph.D.

1. Mahseer environment monitoring activity continued
2. Field data concerning mahseer spawning ground were gathered.
3. Fertilized eggs were transferred to experimental spawning ground in different gravel size and velocities were incorporated.
4. Mahseer adult and fingerlings are collected and oxygen packed fishes transported from Trisuli to Bataju fish ponds.
5. Post larval developmental history in cold and warm season were studied.

INTERIM REPORT

Period : Jan. 1 to June 30 , 1987.

Project : Propagation of Mahseers in Himalayan Waters of Nepal (3E - 30)

Principal Investigator : Tej Kumar Shrestha, Ph.D.

1. Mahseer habitat monitoring (continued)
2. Fry, fingerling and young fish collected from the river and identification tags and marks were put in them to monitor movement.
3. Oxygen packing of hatchery bred fry and fingerlings were and their transport to Balaju, Gokarna and Kulaekhani impoundments.
4. Observed the development of the fry and fingerling in new habitats.
5. Attended National Seminar on "Recent trend in Fish Biology" held in Maghad University, Bodha Gaya and Presented papers on Mahseers. (Dec. 29-Jan. 1)
6. Published paper on "Spawning Ecology and Behaviour of Mahseer, in First Asian Forum. The paper attached herewith for review.

INTERIM REPORT

Period : July 1 to Dec. 1987.

Project : Propagation of Mahseers in Himalayan Waters of Nepal (3E - 30)

Principal Investigator : Tej Kumar Shrestha, Ph.D.

1. Mahseer habitat monitoring activity continued
2. Mahseers were collected from the river and tags and identification marks were put in them for monitoring movement
3. Oxygen packing of young fish and their transport to impoundments in Kathmandu.
4. Presentation of paper in the seminar organised by USAID and review of progress.
5. Distribution of Mahseer T. Shirt to riverside people for conservation education.