
***Fisheries Dynamics of Modified
Floodplains in Southern Asia***

***Sub-Project 4: Density Dependence of
Fish Growth Rates***

Project R5953

Fisheries Management Science Programme
managed by *MRAG*, under the ODA
Renewable Natural Resources Research Strategy

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ODA FMSP Project R5953
Fisheries Dynamics of Modified Floodplains in Southern Asia

Sub-Project 4: Density-dependence of fish growth rates

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PhD Section Density dependent growth

1. Background

The ODA Fisheries Management Science Programme's project R5953: Fisheries Dynamics in Modified Floodplains in Southern Asia is a three year comparative investigation of a hydrologically modified river floodplain in Bangladesh and a more pristine one in Indonesia. The project was designed to address two key developmental needs:

1. *To understand the implications of migration, reproduction and dry-season survival strategies of river fish on the management of inland capture fisheries.*
2. *To understand the impacts of flood control measures on the fish production potential of modified floodplains, and make recommendations on the wider management of floodplain resources for fish production.*

This sub-project estimated the density dependence of floodplain fish growth rates, to provide a sub-component of the floodplain fish production model used to address question 2 above.

2. Sub-project objective

To examine and model the influence of population density on the growth of *P.sophore* to provide a realistic growth model for exploring the dynamics of floodplain fish populations.

3. Personnel

The sub-project was undertaken by the following collaborating staff of the Marine Resources Assessment Group Ltd (MRAG), 8 Prince's Gardens, London, SW7 1NA, UK:

Mr A.S.Halls, PhD research assisstant

and of the Department of Fisheries, Biology and Limnology, Bangladesh Agriculatural University (BAU), Mymensingh:

Mohammed Anowarul Huda, MSc Student

4. Research activities and programme

As described in the attached material, this controlled experiment was conducted at the Bangladesh Agricultural University (BAU), Mymensingh in collaboration with the Faculty of Fisheries between July and September 1996. The experiment focussed upon monitoring the growth of populations of the abundant small species *Puntius sophore* in 16 holding ponds under varying stocking densities over the flood season.

5. Description of outputs

This sub-project was written up as part of the PhD study, as shown in the attached section entitled 'Density dependent growth'.