



**STUDY ON THE MORPHOLOGICAL CHARACTERISTICS  
OF AVAILABLE ARIIDAE FAMILY FISHES IN  
CHATTOGRAM COAST, BANGLADESH**

**Shahriar Kabir Sourov**

Roll No.: 0119/03

Registration No.: 702

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**A thesis submitted in the partial fulfillment of the requirements for the degree of Master  
of Science in Marine Bioresource Science**

**Department of Marine Bioresource Science  
Faculty of Fisheries  
Chattogram Veterinary and Animal Sciences University  
Chattogram-4225, Bangladesh**

**OCTOBER 2022**

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**This is to certify that we have examined the above Master's thesis and have found that is complete and satisfactory in all respects, and that all revisions required by the thesis examination committee have been made**

-----  
**Professor Dr. Shahneaz Ali Khan**

**Supervisor**

-----  
**Dr. Mohammad Sadequr Rahman Khan**

**Chairman of the Examination Committee**

**Department of Marine Bioresource Science**

**Faculty of Fisheries**

**Chattogram Veterinary and Animal Sciences University**

**Chattogram-4225, Bangladesh**

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## LIST OF ABBREVIATIONS

<b>SL</b>	Standard length
<b>TL</b>	Total length
<b>FL</b>	Fork Length
<b>HL</b>	Head Length
<b>POL</b>	Pre-orbital Length
<b>PDL</b>	Pre-dorsal fin length
<b>PVL</b>	Pre-Pelvic fin length
<b>PPL</b>	Pre-Pectoral fin length
<b>PAL</b>	Pre-anal length
<b>KG</b>	Kilogram
<b>G</b>	Gram
<b>MG</b>	Milligram
<b>DOF</b>	Department of Fisheries
<b>FAO</b>	Food and Agriculture Organization
<b>RAPD</b>	Random Amplification of Polymorphic DNA
<b>RFLP</b>	Restriction Fragment Length Polymorphism
<b>BFDC</b>	Bangladesh Fisheries Development Corporation
<b>PCA</b>	Principle Component Analysis
<b>MT</b>	Metric Ton
<b>FY</b>	Fishing Year
<b>KM</b>	Kilometer
<b>ID</b>	Identification
<b>MM</b>	Millimeter

<b>E</b>	East
<b>N</b>	North
<b>ST</b>	Station
<b>WT</b>	Weight
<b>ANOVA</b>	Analysis of Variance
<b>%</b>	Percent
<b>DFA</b>	Discriminant function analysis
<b>CVASU</b>	Chattogram Veterinary and Animal Sciences University

## ABSTRACTS

Morphological characteristics are the fundamental importance in fishery biology for taxonomic and evolutionary studies. Morphometric and meristic study are vigorous tools for measuring discreteness of the same species. Aim of this study was to find out available fish species from Ariidae family in Chattogram coast. The present study examines the correlations between nine morphometric and six meristic characters and total length (TL) of fishes from Ariidae family collected from Chattogram coast in one year time frame. Three species of the Ariidae family (*Plicofollis nella*, *Osteogeneiosis mlitaris*, and *Hemiarius sona*) were observed. Statistical analyses of linear regression relationships show mostly strong correlations ( $r \geq 0.70$ ;  $p < 0.05$ ) with total length (TL). Hence, according to our present results, there is a direct relationship between the total length of fish and all morphometric characters, which were found to be the best indicators of positive allometric pattern growth in fish. The examination of mean and standard deviation revealed no significant variations in meristic features. Thus, our present study will provide a valuable information in systematic classification and management of this species on the Chattogram coast.

**Key words:** Morphometric and Meristic Characters, *Ariidae*, Monthly variation, Chattogram.