



**TEMPORAL VARIATION OF FISH LARVAE AT
MAHESHKHALI PARA, COX'S BAZAR,
BANGLADESH**

Roll No.: 0120/06

Registration No.: 858

Session: 2020-2021

**A thesis submitted in the partial fulfillment of the requirements for the degree of
Master of Science in Fisheries Resource Management**

Department of Fisheries Resource Management

Faculty of Fisheries

Chattogram Veterinary and Animal Sciences University

Chattogram-4225, Bangladesh

August 2022

AUTHORIZATION

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The Author

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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

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ACKNOWLEDGEMENTS

All the praises and thanks to Allah, the Almighty, most gracious, most merciful, most benign who has enabled her to pursue the study in fisheries science successfully and to submit the thesis for the degree of Master of Science in Fisheries Resource Management and also pay gratitude to the Almighty for enabling and giving strengths to complete research work as well as thesis within due course of time.

The author expresses her gratitude and indebtedness to Vice-Chancellor, **Professor Dr. Goutam Buddha Das** and Dean, **Professor Dr. Mohammad Nurul Absar Khan** from the bottom of her heart for their immense administrative support to complete her research work.

The author expresses her deepest sense of gratitude and sincere appreciation to her honorable teacher and research supervisor, **Md. Moudud Islam**, Assistant Professor, Department of Fish Biology and Biotechnology, Chattogram Veterinary and Animal Sciences University, Chattogram for his unflinching support, authoritative guidance, constructive criticism, advice, and continuous motivation. It would never have been possible for her to take this work to completion without his incredible support and continuous encouragement. His dynamism, vision, and confidence inspired her and gave her confidence and strength.

The author also sincerely expresses her gratitude to her co-supervisor, **Dr. Sk Ahmad Al Nahid**, Associate Professor and Head, Department of Fisheries Resource Management, Chattogram Veterinary and Animal Sciences University, Chattogram for his valuable guidance, intellectual suggestions, knowledge, patience, and time to teach her to be a more confident person that she is going to use in the work world.

The author is extremely glad to take the opportunity to express her heartfelt thanks and gratitude to all of her respected teachers of the Faculty of Fisheries, Chattogram Veterinary and Animal Sciences University, Chattogram for their valuable teaching and continuous encouragement during the study period.

The author sincerely thanks **Saifuddin Rana, Nargis Sultana, Jannatul Mawa, and Faijabul Afridi Fahim** for their co-operation during sample and data analysis in the laboratory which made the author work easier.

The author expresses her thanks to the lab assistant **Sopria Biswas** and lab technician **Bokhteyar Hasan**, and all the staff members of the Aquatic Ecology laboratory for their cooperation during laboratory analysis as well.

Finally, the author expresses her heartfelt gratitude to her beloved parents M.A.Salam and Parvin Akter and her sisters and brother for selfless love, blessings, care, dedicated efforts, valuable prayers, continuous support during the academic life.

The Author

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LIST OF ABBREVIATIONS

Acronym	Definition
M	Meter
μm	Micro meter
Mm	Millimeter
m^3	Cubic meter
Jan	January
Feb	February
Mar	March
Apr	April
May	May
Jun	June
Jul	July
Aug	August
Sep	September
Oct	October
Nov	November
Dec	December
S	Summer
W	Winter
M	Monsoon
SD	Standard deviation

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ABSTRACT

The temporal abundance and composition of fish larval families and their spawning season in the Maheshkhali para of Cox's Bazar coast were studied from March 2020 to February 2021 on monthly basis. Sampling was performed by a bongo net with two mouth openings. In total 1223 individuals, representing 14 larval families, with a mean abundance of 101.92 individuals per 1000m³, were collected and identified under stereo microscope during sampling period. Larvae that were found in this area were: Clupeidae, Engraulidae, Terapontidae, Gobiidae, Tetradontidae, Scombridae, Sparidae, Siganiidae, Pomacentridae, Mugilidae, Hemiramphidae, Serranidae, Ambassidae, Carangidae. Among them, Clupeidae, Engraulidae and Gobiidae contributed 52.82%, 19.22%, and 12.59% of the total catch. The month of July was found as the most diversified month, which had 356 individuals/ 1000m³. In contrast, March had the highest number of larvae families (07). Based on the constancy of occurrence, Clupeidae was termed as "constant" as their larvae were found in six months of that year. The highest value of the Shannon-Wiener index was 1.91, observed in March. Both Margalef's and Pieulo's index were the highest in March, with 2.60 and 0.98 respectively. This study will establish the groundwork for sustainable fisheries resource management strategies in the Cox's Bazar region.

Keywords: Fish larvae, Maheshkhali para, abundance, diversity indices, spawning season.