Dedlicated to



Professor Dr. Syed Safiullah Founder Chairman Department of Environmental Sciences Jahangirnagar University Dhaka 1342, Bangladesh

Bangladesh Journal of Environmental Research

Volume 9

2011

Editorial Board

Editor: Dr. Shafi Mohammad Tareq

Members: Professor M. Khabir Uddin Dr. Mahfuza Sharifa Sultana Dr. Syed Hafizur Rahman Dr. A.N.M. Fakhruddin Mr. A.H.M. Saadat



Department of Environmental Sciences Jahangirnagar University Dhaka 1342, Bangladesh

Bangladesh Journal of Environmental Research Instructions to Authors

Bangladesh Journal of Environmental Research is a multi-disciplinary environmental research and review journal published in English annually. Its scope includes experimental and theoretical works on environmental sciences, management and technologies. Original research papers or short review articles are welcome on the understanding that they have not been published or are being considered for publication elsewhere.

The following should be treated as broad guidelines in preparing the manuscript:

Manuscripts should be written in clear, concise and grammatically correct English (with 12 font size and Times New Roman font style) so that they are intelligible to the professional reader who is not a specialist in any particular field. Manuscripts that do not conform to these requirements and the following manuscript format may be returned to the author prior to review for correction. The entire manuscript, including references, should be typed double spaced on one side of the paper, with margins of 3 cm each side. All pages should be numbered consecutively in the bottom centre. Indent new paragraphs. Turn the hyphenation option off, including only those hyphens that are essential to the meaning. The manuscript should be presented in the following order.

Title page. This should contain the title (capitalize first letter of each word in the title) of the contribution and the name(s) and address(es) of the author(s). The full postal address, Internet e-mail address, telephone number of the author who will receive correspondence and check the proofs should be included, as well as the present address of any author if different from that where the work was carried out. The main title should, where possible, contain the major key words used in the body of the manuscript; the title should contain the scientific name and authorities of the insect with the order and family placed in parentheses.

Abstract. All manuscripts must include a brief but informative Abstract intelligible without reference to the main text. It should not exceed 300 words and should describe the scope, hypothesis or rationale for the work and the main findings.

Key Words. Key words (3-5) should be provided below the Abstract to assist with indexing of the article. These should not duplicate key words from the title.

Introduction. This section should include sufficient background information to set the work in context. The aims of the manuscript should be clearly stated. The introduction should not contain either findings or conclusions.

Materials and Methods. This should be concise but provide sufficient detail to allow the work to be repeated by others.

Results. Results should be presented in a logical sequence in the text, tables and figures; repetitive presentation of the same data in different forms should be avoided. The results should not contain material appropriate to the Discussion.

Discussion. This should consider the results in relation to any hypotheses advanced in the Introduction and place the study in the context of other work. Only in exceptional cases should the Results and Discussion sections be combined.

Conclusions. Brief summary of the work along with recommendations should be included in this section.

Acknowledgment. The source of financial grants and other funding must be acknowledged, including a frank declaration of the authors' industrial links and affiliations. Authors must declare any financial support or relationships that may pose conflict of interest in a covering letter submitted with the manuscript. Financial and technical assistance may be acknowledged here. It is the authors' responsibility to obtain written permission to quote material that has appeared in another publication.

References. Each citation in text, tables or figure captions must be entered in the Reference section, showing all authors, year, title and source (journal, book, thesis, etc.), with inclusive page numbers. Author names should be given surname first, followed by initials (without intervening commas). Note that *et al.* is not acceptable in the reference list unless the publication has more than six authors. Names of journals and books should be in italics; names of journals should be abbreviated following standard conventions. Journal and serial volume numbers, if applicable, should be in bold font. In the text, refer to the author(s) and the year. Examples for one author, two authors and more than two authors are: Gambrell (2007); Dockery and Pope (2008); Gunter et al. (2000). If there is more than one listing of the same author and year, use a, b, c, etc. Prepare a list in alphabetical order containing all literature cited. The following examples should be used as a guide:

Examples:

Article: Vazquez, G.F. and Enisco, G. (2007) Metal ions in water and sediments of the Pom-Atasta lagoon, Mexico. *Environ Int.*, **25**, 599-604.

Book: Appelo, C.A.J. and Posma, D. (1994) *Geochemistry, groundwater and pollution*, A.A. Balkema, Rotterdam, Netherlands.

Report: WDATCP (Wisconsin Department of Agriculture, Trade, and Consumer Protection) (1991) Report to the state legislature: Agricultural clean sweep demonstration projects, *Madison, WI: Agricultural Resource Management Division*.

Regulation: USEPA (United States Environmental Protection Agency) (1995) Water quality standards-Revision of metals criteria, *Fed. Reg.* **60**, 229-237.

Proceedings: Krewitt, W., Trukenmueller, A., Mayerhofer, P. and Freidrich, R. (1995) An integrated tool for environmental impact analysis. *In: Kremers, H.; Pillmann, W., eds. Space and time in environmental information systems,* 90-97.

Tables. Tables should be self-contained and complement, but not duplicate, information contained in the text. The table and its legend/footnotes should be understandable without reference to the text.

Figures. Only scientifically necessary illustrations should be included. All illustrations (line drawings and photographs) are classified as figures. Figures should be cited in consecutive order in the text. Graphics should be supplied as high resolution (at least 300 dpi.) electronic files, saved as .eps or .tif format. A high resolution print-out must also be provided. Digital images supplied only as low-resolution print-outs cannot be used.

Colour Figures. Colour photographs should be submitted as good quality, glossy colour prints. Authors have to bear the cost of colour printing.

Review, Charges and Reprints. Reviewer's comments will be sent via post and/ or e-mail as an Acrobat PDF (Portable Document Format) file and should be returned within 7 days of receipt. Editor keeps the right to cancel any delay submitted manuscript. Tk.1000.00 for 8 Journal's printed pages would be charged as a printing/processing fee for external (other than Jahangirnagar University) first author. A copy of the journal with 10 reprints will be provided to the corresponding author after the publication.

Corresponding Address. Initially two copies of the manuscript along with soft copy in a CD should be submitted to the editor.

The Editor

Bangladesh Journal of Environmental Research Volume 9 2011

Contents

Environmental Research at Jahangirnagar : A Brief Personal Account	1-6
Professor Syed Safiullah	
Indigenous Coping Capacities due to Water-logging, Drinking Water Scarcity and Sanitation at Kopotaksho Basin, Bangladesh	7-16
Shahriar Rahman and Syed Hafizur Rahman	
Impact of Wastewater and Soil of Fertilizer Production Plant on the Water of the Meghna River	17-26
Mahfuza S. Sultana, Nushrat Jahan, Shakila Akter and Mala Khan	
Effect of γ -irradiation on physico-chemical and microbiological qualities in relation to shelf-life extension of fresh-cut Oyster mushrooms (<i>Pleurotus ostreatus</i>) in different polymeric packages	27-38
Abu Saleh Mostofa Kamal, Abul Khair, Fauzia Begum, Tasnim Farzana, Harun-or-Rashid	
Microbial Decontamination of Raw Beef and Beef-Kebab by Radiation and Low Temperature for Long Term Preservation	39-44
Abdullah-Al-Mahin, Arzina H, Farhana Rahman Pinu and Harun-Or- Rashid	
Electrocoagulation (EC) Technique for Color Removal from Orange II Dye	45-52
S. M. Nazrul Islam, Syed Hafizur Rahman, Tanveer Mehedi Adyel, Md. Sabbir Ahmed, Riffat Ara Yesmin, Md. Mahbubur Rahman, Nowrine Kaiser	
Influence of Coagulation Process and pH on the Removal of COD and TSS from Textile Effluent	53-59

Abdul Kadir Ibne Kamal, Md. Mostafizur Rahman and M Khabir Uddin

An Assessment and Comparison of Possible Agrochemical Contamination of Groundwater between Agricultural (Dhamrai Upazilla) and Nonagricultural (Savar Upazilla) Area	60-66
A H M Saadat, Amena Jannat and Fahmida Parvin	
Dietary Behavior and Nutritional Status of the Selected Adolescent Girls in Dhaka City	
Kakali Das Poddar, A.K. Obidul Huq, Farhana Akther, Shamim Al Mamun and Md. Aminul Haque Bhuyan	67-76
Studies on the Mechanisms of Mortality of <i>Culex quinquefasciatus</i> Larvae by the Entomopathogenic Fungus, <i>Beauveria bassiana</i>	77-83
Md. Golam Mostafa, Abdul Jabber Howlader and Abul Khair	
Bacteriological Quality Assessment of Decorative Fountains in Dhaka City	85-91
Md. Kamruzzaman Pramanik, Md. Zahid Hasan, S.M. Asaduzzaman, Abu Hashem, Fauzia Begum, Md. Shakhawat Hossain Bhuiyan	
Study of the Environmental Pollution due to Radioactivity in Soil of the Northern Part of Bangladesh	93-103
Md. Redwanur Rahman, Mrs. Shafaly Khatun, Md. Mozammel Haque and Md. Rokon Uddin	
Lignin biomarker as a novel proxy for paleovegetation changes: a brief review	105-115
Shafi M Tareq and Keiichi Ohta	