ISSN: 1021-2787

THE DHAKA UNIVERSITY JOURNAL OF BIOLOGICAL SCIENCES

(Dhaka Univ. J. Biol. Sci.)

Vol. 26, No. 1 January 2017

Abstracted in: BIOSIS Previews and Biological Abstracts

EDITORIAL BOARD

Editor

Prof. Md. Anwarul Islam Department of Zoology, D.U.

Members

Prof. M. Imdadul Hoque

Dean, Faculty of Biological Sciences, D.U.

Prof. Sirajul Hoque

Department of Soil, Water & Environment, D.U.

Prof. Rakha Hari Sarker

Department of Botany, D.U.

Prof. Haseena Khan

Department of Biochemistry & Molecular Biology, D.U.

Prof. Nasreen Wadud

Department of Psychology, D.U.

Prof. Humaira Akhter

Department of Microbiology, D.U.

Mr. Mohammad Mamun Chowdhury

Department of Fisheries, D.U.

Dr. Farah Deeba

Department of Clinical Psychology, D.U.

Prof. Sharif Akhteruzzaman

Department of Genetic Engineering

& Biotechnology, D.U.

Prof. Shaheen Islam

Department of Educational & Counselling

Psychology, D.U.

Prof. Md. Abul Bashar

Department of Botany, D.U.

Published by: Professor Md. Anwarul Islam, Editor, The Dhaka University Journal of Biological Sciences, on behalf of the Editorial Board.

Printed by: Hasib Computers & Printing, hasibprinting@gmail.com

THE DHAKA UNIVERSITY JOURNAL OF BIOLOGICAL SCIENCES

(Dhaka Univ. J. Biol. Sci.)

Vol. 26, No. 1 January 2017 **CONTENTS** Mihir Lal Saha, Md. Atiq Mahbub, Tahsin Khan, M. Moniruzzaman and Sirajul Hoque - Bacterial and chemical pollution level of the river Turag, Gazipur, Bangladesh 1 Md Babul Hossain, Nahid Sultana, Parvin Noor, Selina Khan, Sharmin Akter Lisa, Mahmuda Begum, Nusrat Jahan Punom, Mst Khadiza Begum, Md Rakibul Hasan and Mohammad Shamsur Rahman - Growth performance and fatty acid profile of Nile tilapia Oreochromis niloticus (Linnaeus, 1758) fed with different phytoplankton 13 Md Arifur Rahman Bhuiyan, Tazeen Fatima Khan, Shahjahan Choudhury and SM Imamul Huq - Cadmium and lead tolerant bacteria isolated from industrial waste 29 water Md Ariful Islam, S Shamsi, S Hosen and MA Bashar - In vitro effects of plant extracts and fungicides to control wilt of brinjal (Solanum melongena L.) 39 Md Abdur Razzak Hasan, Mohammad Anwar Siddique, Mahmud Hasan, M Anwar Hossain and Mohammad Shamsur Rahman - 16S rRNA gene sequence based identification of Vibrio spp. in shrimp and tilapia hatcheries of Bangladesh 45 M Rafiqul Islam, GKM Mustafizur Rahman, M Abu Saleque and MJ Uddin - Effect of industrial effluents on seed germination and seedling growth of rice 59 Shaheen Islam and Roufun Naher - Effectiveness of nonviolent communication (NVC) 69 workshop on marital adjustment Md Golam Rabbane, Md. Mizanur Rahman, Md. Alamgir Kabir and Md. Hasan Faruque - Effect of rearing density on reproduction and embryogenesis of zebrafish 77 Danio rerio (Hamilton, 1922) Hawa Jahan, Mehnus Tabassum and Gulshan Ara Latifa - Identification of Awaous guamensis and A. grammepomus based on morphology and molecular analysis 83 Tangin Akter, Sangita Ahmed and Badhan Rani Das - Carriage of multi-drug resistant Gram-negative pathogenic bacteria by the house fly Musca domestica 91 Md Al-Ameen, S Shamsi and MA Bashar - Mycoflora associated with infected fruits 101 of different varieties of Musa sapientum L. and their pathogenic potentiality Short communication Gawsia W Chowdhury, Muntasir Akash and Alifa Bintha Haque - Status of the Ganges river shark *Glyphis gangeticus* (Müller & Henle, 1839) 111

THE DHAKA UNIVERSITY **JOURNAL OF BIOLOGICAL SCIENCES**

(Dhaka Univ. J. Biol. Sci.)

•	2017
CONTENTS	
Mihir Lal Saha, Md. Atiq Mahbub, Tahsin Khan, M. Moniruzzaman and Sirajul Hoque-Bacterial and chemical pollution level of the river Turag, Gazipur, Bangladesh Md Babul Hossain, Nahid Sultana, Parvin Noor, Selina Khan, Sharmin Akter Lisa,	-
Mahmuda Begum, Nusrat Jahan Punom, Mst Khadiza Begum, Md Rakibul Hasan and Mohammad Shamsur Rahman - Growth performance and fatty acid profile of Nile tilapia <i>Oreochromis niloticus</i> (Linnaeus, 1758) fed with different phytoplankton Md Arifur Rahman Bhuiyan, Tazeen Fatima Khan, Shahjahan Choudhury and SM Imamul Huq - Cadmium and lead tolerant bacteria isolated from industrial waste water	13 29
Md Ariful Islam, S Shamsi, S Hosen and MA Bashar - In vitro effects of plant extracts and	
fungicides to control wilt of brinjal (Solanum melongena L.)	39
Md Abdur Razzak Hasan, Mohammad Anwar Siddique, Mahmud Hasan, M Anwar Hossain and Mohammad Shamsur Rahman - 16S rRNA gene sequence based	
identification of Vibrio spp. in shrimp and tilapia hatcheries of Bangladesh	$4^{!}$
M Rafiqul Islam, GKM Mustafizur Rahman, M Abu Saleque and MJ Uddin - Effect of industrial effluents on seed germination and seedling growth of rice	59
Shaheen Islam and Roufun Naher - Effectiveness of nonviolent communication (NVC)	
workshop on marital adjustment	69
Md Golam Rabbane, Md. Mizanur Rahman, Md. Alamgir Kabir and Md. Hasan Faruque	
- Effect of rearing density on reproduction and embryogenesis of zebrafish <i>Danio rerio</i> (Hamilton, 1922)	7
Hawa Jahan, Mehnus Tabassum and Gulshan Ara Latifa - Identification of <i>Awaous</i> guamensis and <i>A. grammepomus</i> based on morphology and molecular analysis Tangin Akter, Sangita Ahmed and Badhan Rani Das - Carriage of multi-drug resistant	83
Gram-negative pathogenic bacteria by the house fly <i>Musca domestica</i>	9
Md Al-Ameen, S Shamsi and MA Bashar - Mycoflora associated with infected fruits of	
different varieties of Musa sapientum L. and their pathogenic potentiality	10
Short communication	
Gawsia W Chowdhury, Muntasir Akash and Alifa Bintha Haque - Status of the Ganges river shark <i>Glyphis gangeticus</i> (Müller & Henle, 1839)	11

 $Bangladesh.\ Phone: Off.: 9661920-73/7580,\ Fax: +880-2-9667222,\ E-mail: <anwar1955@gmail.com>$

Price: Foreign Inland Each issue : Tk. 250.00
Each volume : Tk. 500.00 US\$ 30.00 US\$ 60.00

THE DHAKA UNIVERSITY JOURNAL OF BIOLOGICAL SCIENCES

VOL. 26, NO. 1, JANUARY 2017

THE DHAKA UNIVERSITY JOURNAL OF BIOLOGICAL SCIENCES

VOL. 26, NO. 1, JANUARY 2017

VOL. 26 NO. 1 JANUARY 2017

ISSN: 1021-2787

INSTRUCTIONS TO CONTRIBUTORS

- **1.** The Dhaka University Journal of Biological Sciences publishes full papers and short communications of original research on all aspects of biological sciences that make a sufficient contribution to biological knowledge.
- 2. Papers should be in English, typed double-spaced and on one side of the paper $(30 \times 21 \text{ cm})$, preferably A-4 bond paper, with sufficient margin on all sides, and should not exceed **ten typed pages** (approximately 2500 words) in case of full papers and **five typed pages** including tables and figures in case of short communications. A paper is received on the undertaking by the author(s) that it has not been and will not be published elsewhere; and that it may be edited, where necessary, for brevity, clarity, and elimination of redundancy.

The cover letter of an article should be signed by all co-authors.

3. A paper should have : (a) **Title page** (Page 1) which should include (i) Title of the paper; (ii) Name of the author(s) in full; (iii) Complete address of the institution/laboratory where the work was performed; (iv) Running title; (v) Key words; and (vi) name, address and telephone number(s) of the author to whom all correspondence (galley proofs, reprint requests, etc) may be made.

The title page should be followed by the **Abstract page** (Page 2). A full paper should have an abstract preferably within 200 words. The abstract should only include objective and summarized results.

The Abstract, should be followed by separate pages, Page 3 onwards wherein Introduction, Materials and Methods, Results and Discussion, Acknowledgements (if any) and References should be included consecutively.

- **4. Tables** should be typed on separate sheets and their approximate positions should be marked in the text. Foot notes should be avoided as far as possible.
- **5. Figures** should be prepared in line drawings in indeliable ink with standard stencils. Original legible machine-charts or data sheets may be used. Figures should be uniform to all the same degree of reduction and their lettering (done with lettering aids) should be 4-6 mm in height to allow legibility upon reduction.

Photographs should be of high-contrast glossy, black and white prints.

All original figures, plates, photographs should be numbered on the back with authors' names and title of the paper, indicating top side by using a soft pencil. **Legends** to the figures, plates or photographs should be typed on separate sheets of paper and submitted in triplicate with numbers given for each legend.

- $\mbox{\bf 6.}$ Use of metric system and the celsius scale (°C) is mandatory.
- **7. References.** The references actually cited in the text should be listed. References in text should be cited in parenthesis numerically like ⁽¹⁾, ⁽³⁻⁵⁾, etc.

Journal:

1. Uddin MJ, S Al-Mamun, A Nessa, Z Parveen and SM Imamul Huq 2014. Effects of waste water irrigation on the growth and nutrient status of kalmi (*Ipomoea aquatica* Forssk.). Dhaka Univ. J. Biol. Sci. **23**(1): 1-8.

Books:

- Tortora GJ, BR Funke and CL Case 2002.
 Microbiology: An Introduction. San Francisco, Boston, New York, pp. 887.
- Hassan MA 2009. In: Ahmed ZU, MA Hassan, ZNT Begum, M Khondker, SMH Kabir, M Ahmed and ATA Ahmed (Eds), Encyclopedia of Flora and Fauna of Bangladesh, Vol. 10. Angiosperms: Dicotyledons (Rhamnaceae). Asiatic Society of Bangladesh, Dhaka, pp. 7-14.
- **8. Short communications** must not exceed FIVE type-written double spaced pages including one table and/or one illustration, if any. The list of references at the end of the paper should not exceed ten. The presentation of short communications should be continuous and paragraphed, without headings such as Introduction, Materials and Methods, Results and Discussions, etc.
- **9. Submission on diskette**. Authors must submit a diskette/CD in MS words containing the final version of the text; this should be in addition to, not as a replacement for, the required two copies.
- **10.** Final galley-proofs will be sent to the authors for corrections. The corrected proofs should be immediately returned to the Editor. Authors should not insert new matter into proofs.

Authors will receive 15 reprints as free copy.

11. Papers should be submitted in **duplicate** to: Professor Md. Anwarul Islam, Editor, The Dhaka University Journal of Biological Sciences, Department of Zoology, University of Dhaka, Dhaka-1000, Bangladesh.

Tel: Off. 9661900-73/7580; Fax: +880-2-9667222 E-mail: <anwar1955@gmail.com>