ISSN: 1021-2787

THE DHAKA UNIVERSITY JOURNAL OF BIOLOGICAL SCIENCES

(Dhaka Univ. J. Biol. Sci.)

Vol. 27, No. 2 July 2018

Abstracted in BIOSIS Previews and Biological Abstracts

EDITORIAL BOARD

Editor

Prof. Shahid Akhtar Hossain

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

Associate Editor

Prof. Md. Saydul Islam

Department of Biochemistry & Molecular Biology D.U.

Members

Prof. M. Imdadul Hoque

Dean, Faculty of Biological Sciences, D.U.

Prof. Shamim Shamsi Mrs. Nazma Khatun

Department of Botany, D.U. Department of Clinical Psychology, D.U.

Prof. Md. Niamul Naser Prof. Sabina Yeasmin

Department of Zoology, D.U. Department of Genetic Engineering

& Biotechnology, D.U.

Prof. Mafuza Khanum Mrs. Mahjabeen Haque

Department of Psychology, D.U. Department of Educational & Counselling

Psychology, D.U.

Prof. Sabita Rezwana Rahman Prof. Md. Anwarul Islam

Department of Microbiology, D.U. Department of Zoology, D.U.

Prof. Kaniz Fatema

Department of Fisheries, D.U.

Published by: Professor Shahid Akhtar Hossain, 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. 27, No. 2 July	2018
CONTENTS	
Monija Manjur, Sonia Hossain and Md. Harunor Rashid Khan - Crop response to residual effects of basic slag, aggregate size and groundwater level treated acid sulfate soils	113
Bani Halder, Shanjida Sultana, Tangin Akter and Shefali Begum - Life cycle, feeding behavior and nature of damage of sweet potato leaf moth, <i>Agrius cingulata</i> (Fabricius) and <i>Agrius Convolvuli</i> (Linnaeus) (Lepidoptera:	
Sphingidae)	125
Humayun Reza Khan, Nigar Sultana and Prova Sharmin - Larvicidal efficacy of the crude leaf extracts of <i>Eucalyptus camaldulensis</i> Dehn (Myrtales: Myrtaceae)	
against the mosquito larvae of Culex quinquefasciatus Say (Diptera: Culicidae)	135
Anita Rani Saha and Farah Deeba - Gender differences in coping styles of patients	
with depression: A comparative study	145
Shamim Shamsi, Sarowar Hosen and Ashfaque Ahmed - Fungi associated with	
leaves of <i>Sonneratia apetala</i> Buch. Ham and <i>Sonneratia caseolaris</i> (L.) Engler from Rangabali coastal zone of Bangladesh	155
Farzana Yasmin, Rajia Sultana and Md. Zakir Sultan - Assessment of heavy	
metals and thermal properties of soil-rice-husk system collected from three districts of Bangladesh	163
Chandan Kumar Dash, Sheikh Shamimul Alam and Syeda Sharmeen Sultana -	
Karyomorphology of Justicia adhatoda L. by differential staining	175
Ishrat Jahan Bonna, Sheikh Shamimul Alam and Syeda Sharmeen Sultana -	
Cytogenetical characterization of Acalypha indica L. in Bangladesh	183
Mohammad Azmal Hossain Bhuiyan and Moniruzzaman Khondker - Water	
quality and potamoplankton of the river Buriganga and Gomti: A comparison	191
Tazeen Fatima Khan, Samapti Roy and Md. Harunur Rashid - Phytoavailability	
of chromium in chromium salt and poultry feed	201
Dilruba Parvin, Parveen Rashid and J. L. Karmoker - Anatomical responses of	
jute (Corchorus capsularis L. cv. D-154) to waterlogging	213
Short communication	
Md. Khalilur Rahman - Assessment of evapotranspiration loss of water from rice	
and wheat plants grown in sand and sandy soil in earthen pots under flood irrigation	221

THE DHAKA UNIVERSITY JOURNAL OF BIOLOGICAL SCIENCES

(Dhaka Univ. J. Biol. Sci.)

Vol. 27, No. 1 January 2	2018
CONTENTS	
Shafrina Samia and Mahfuza Khanam - Number of bystander, time pressure and gender effects on altruistic behavior	1
Mahmud Hasan - Optimization of high density long duration transportation of silver carp (<i>Hypophthalmichthys molitrix</i>) and rui (<i>Labeo rohita</i>) fingerlings	9
Chhanda Karmaker, Afroza Hossain, Fariea Bakul and Sumaia Ali Raisa - Living arrangements and social support as predictors of mental health and life satisfaction of older adults	17
Mihir Lal Saha, Mist. Dilara Akter, Tahsin Khan, Aneesa Ansari and Mohammad Nurul Islam - Bacterial load and multi-drug resistance patterns of some ready-to-eat street foods of Dhaka city	27
Rifat Samad, Parveen Rashid And JL Karmoker - Effects of long term exposure to aluminium stress on the accumulation and distribution of K^+ , Na^+ , Ca^{2+} , Mg^{2+} , Fe^{2+} and Cl^- in rice and chickpea plants	37
Nafiza Ferdowshi and Ummee Habiba Shithee - The role of internet addiction and mastery motivation on academic achievement among school-aged children	49
Md Mostavi Enan Eshik, Nusrat Jahan Punom, Mst Khadiza Begum, Tahsin Khan, Mihir Lal Saha and Mohammad Shamsur Rahman - Molecular characterization of acute hepatopancreatic necrosis disease causing <i>Vibrio parahaemolyticus</i> strains in cultured shrimp <i>Penaeus monodon</i> in south-west farming region of Bangladesh	57
Kishwar Jahan Shethi, Mabia Khanam Doty, Saima Jahan Liza and Parveen Rashid -	
Anatomical study of <i>Momordica charantia</i> L. from Bangladesh Mosheur Rahman, Mohammad Shamimul Alam and Md. Golam Rabbane - Effects of feeding frequency on growth performances and RNA: DNA ratio of the gangetic mystus (<i>Mystus cavasius</i> Hamilton, 1822) in laboratory condition	69 75
Najmun Naher, Shamim Shamsi, Md Rawshan Ali and Md Abul Bashar - Screening of Sclerotinia stem rot resistance in Bangladesh mustard germplasm using cotyledon assay method	85
Farhana Islam, Shamim Shamsi and Md Abul Bashar - Fungi associated with anthracnose of mango (<i>Mangifera indica</i> L.) fruits and their pathogenic potentiality	93
Nadra Tabassum - A taxonomic account of pteridophytic flora of Adampur forest, Moulvibazar district, Bangladesh	101

THE DHAKA UNIVERSITY **JOURNAL OF BIOLOGICAL SCIENCES**

(Dhaka Univ. J. Biol. Sci.)

Vol. 27, No. 2 July	2018
CONTENTS	
Monija Manjur, Sonia Hossain and Md. Harunor Rashid Khan - Crop response to	
residual effects of basic slag, aggregate size and groundwater level treated acid	
sulfate soils	113
Bani Halder, Shanjida Sultana, Tangin Akter and Shefali Begum - Life cycle, feeding	
behavior and nature of damage of sweet potato leaf moth, Agrius cingulata	
(Fabricius) and Agrius Convolvuli (Linnaeus) (Lepidoptera: Sphingidae)	125
Humayun Reza Khan, Nigar Sultana and Prova Sharmin - Larvicidal efficacy of the	
crude leaf extracts of Eucalyptus camaldulensis Dehn (Myrtales: Myrtaceae) against	
the mosquito larvae of Culex quinquefasciatus Say (Diptera: Culicidae)	135
Anita Rani Saha and Farah Deeba - Gender differences in coping styles of patients with	
depression: A comparative study	145
Shamim Shamsi, Sarowar Hosen and Ashfaque Ahmed - Fungi associated with leaves	
of Sonneratia apetala Buch. Ham and Sonneratia caseolaris (L.) Engler from Rangabali	
coastal zone of Bangladesh	155
Farzana Yasmin, Rajia Sultana and Md. Zakir Sultan - Assessment of heavy metals	
and thermal properties of soil-rice-husk system collected from three districts of	
Bangladesh	163
Chandan Kumar Dash, Sheikh Shamimul Alam and Syeda Sharmeen Sultana -	
Karyomorphology of Justicia adhatoda L. by differential staining	175
Ishrat Jahan Bonna, Sheikh Shamimul Alam and Syeda Sharmeen Sultana -	
Cytogenetical characterization of Acalypha indica L. in Bangladesh	183
Mohammad Azmal Hossain Bhuiyan and Moniruzzaman Khondker - Water quality	
and potamoplankton of the river Buriganga and Gomti: A comparison	191
Tazeen Fatima Khan, Samapti Roy and Md. Harunur Rashid - Phytoavailability of	
chromium in chromium salt and poultry feed	201
Dilruba Parvin, Parveen Rashid and J. L. Karmoker - Anatomical responses of jute	
(Corchorus capsularis L. cv. D-154) to waterlogging	213
Short communication	
Md. Khalilur Rahman - Assessment of evapotranspiration loss of water from rice and	
wheat plants grown in sand and sandy soil in earthen pots under flood irrigation	221
All communications regarding the Journal should be addressed to Professor Shahid Akhtar Hossain, Editor	
Dhaka University Journal of Biological Sciences, Department of Soil, Water and Environment, University of D Dhaka 1000, Bangladesh. Phone: Off.: 9661920-73/7489, Fax: +880-2-9667222, E-mail: <sahossain@du.ac.bd></sahossain@du.ac.bd>	haka,

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

THE DHAKA UNIVERSITY JOURNAL OF BIOLOGICAL SCIENCES

VOL. 27, NO. 7, JANUARY 2018

THE DHAKA UNIVERSITY JOURNAL OF BIOLOGICAL SCIENCES

VOL. 27, NO. 1, JANUARY 2018

VOL. 27 NO. 1 JANUARY 2018

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.

- ${\bf 6.}$ 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 Shahid Akhtar Hossain, Editor, The Dhaka University Journal of Biological Sciences, Department of Soil, Water and Environment, University of Dhaka, Dhaka-1000, Bangladesh.

Tel: Off. 9661900-73/7489; Fax: +880-2-9667222 E-mail: <sahossain@du.ac.bd>