

AES Bioflux, Volume 6(2)
June, 15, 2014

**Advances in Environmental Sciences -
International Journal of the Bioflux
Society**



International Standard Serial Number

Online ISSN 2066-7647; Print ISSN 2066-7620; ISSN-L 2066-7620

Published by Bioflux – three issues per year

The journal covers all the fields of environmental sciences, connected mostly to life sciences, but also to geology, physics, chemistry, economics, policies or legislation (both theoretical and applied issues).

Editor-in-Chief

Gavriloaie Ionel-Claudiu - Technical College INFOEL Bistrita (Romania)

Editors

Botha Miklos - Bioflux SRL, Cluj-Napoca (Romania)

Dragan Alina-Aida - Technical University, Cluj-Napoca (Romania)

Georgescu Bogdan - USAMV Cluj, Cluj-Napoca (Romania)

Jaradat Mohammad - Bogdan Voda University, Cluj-Napoca (Romania)

Mihaiescu Radu - "Babes-Bolyai" University, Cluj-Napoca (Romania)

Mihaiescu Tania - USAMV Cluj, Cluj-Napoca (Romania)

Negrea Bogdan Mihai - University Stefan cel Mare, Suceava (Romania)

Nuneza Olga M. - MSU, Iligan Institute of Technology, Iligan City (Philippines)

Ozunu Alexandru - "Babes-Bolyai" University, Cluj-Napoca (Romania)

Pasarin Benone - USAMV Iasi, Iasi (Romania)

Petrescu-Mag Ioan Valentin – USAMV Cluj, Cluj-Napoca (Romania)

Petrescu-Mag Malina Ruxandra – "Babes-Bolyai" University, Cluj-Napoca (Romania)

Petrovici Milca - West University of Timisoara (Romania)

Popa Ionel - University Stefan cel Mare, Suceava (Romania)

Stefanescu Lucrina Niculina - "Babes-Bolyai" University, Cluj-Napoca (Romania)

Talu Stefan - Technical University of Cluj-Napoca (Romania)

Taut Ioan - USAMV Cluj, Cluj-Napoca (Romania)

Vesa Stefan Cristian - University of Medicine and Pharmacy, Cluj-Napoca (Romania)

Editorial Councillor

Velter Victor: UEFISCDI, Bucharest (Romania)

Scientific Reviewers

Al-Qutob Mutaz - Al-Quds University (Palestinian Authority)

Alizadeh Omid - Islamic Azad University (Iran)

Brasovean Ioan - USAMV Cluj, Cluj-Napoca (Romania)

Burny Philippe – Universite de Liege (Belgium)

Caipang Christopher M.A. - Biovivo Technologies AS, Bodø (Norway)

Celik Meryem Yesim - University of Sinop (Turkey)

Chanda Kelvin M. - Lusitu High School, Siavonga (Zambia)

Correa Jean Michel - Federal University of Ceara, Fortaleza (Brazil)

Cosma Dorin - West University of Timisoara (Romania)

Costea Ramona Ioana - University Stefan cel Mare, Suceava (Romania)

Covaciuc-Marcov Severus-Daniel - University of Oradea, Faculty of Sciences (Romania)

Covrig Ilie - USAMV Cluj, Cluj-Napoca (Romania)

Csep Laszlo - Bioflux, Cluj-Napoca (Romania)

Doroftei Mihai - INCDD Tulcea, Tulcea (Romania)

Dutu Mircea - The Ecological University of Bucharest (Romania)

Farooq Jehanzeb - Cotton Research Institute, Ayub, Faisalabad (Pakistan)

Fendrihan Sergiu - Romanian Bioresource Centre, Bucharest (Romania)

Gaina Viorel - University of Craiova (Romania)

Hasanuzzaman Mirza - Kagawa Univ. (Japan); Sher-e-Bangla Agric. Univ. (Bangladesh)
Iederan Cristian Ioan - USAMV Cluj, Cluj-Napoca (Romania)
Merce Emilian - USAMV Cluj, Cluj-Napoca (Romania)
Morar Gavrila - USAMV Cluj, Cluj-Napoca (Romania)
Nita Victor - Nat. Inst. Marine Research & Dev. Gr. Antipa, Constanta (Romania)
Nowak Michal – University of Agriculture in Krakow (Poland)
Odagiu Antonia - USAMV Cluj, Cluj-Napoca (Romania)
Oroian Ioan - USAMV Cluj, Cluj-Napoca (Romania)
Oroian Teofil - USAMV Cluj, Cluj-Napoca (Romania)
Outred Heather A. - Massey University, Palmerston North (New Zealand)
Pacioglu Octavian - Roehampton University, London (England)
Paschos Ioannis - Technological Educational Institute of Epirus (Greece)
Peteiro Cesar - Spanish Institute of Oceanography (IEO), Santander (Spain)
Petrescu Dacinia Crina - "Babes-Bolyai" University, Cluj-Napoca (Romania)
Plaiu Nicolae - University Stefan cel Mare, Suceava (Romania)
Popescu Irinel – "Al. I. Cuza" University, Faculty of Biology (Romania)
Rahman Mohammed M. - Kochi University, Kochi (Japan)
Roibu Catalin-Constantin - University Stefan cel Mare, Suceava (Romania)
Sangpradub Narumon - Khon Kaen University, Khon Kaen (Thailand)
Sas Istvan – University of Oradea, Faculty of Sciences (Romania)
Sintean Adrian - West University of Timisoara, Timisoara (Romania)
Zamfirescu Stefan – "Al. I. Cuza" University, Faculty of Biology (Romania)

Contact Publisher

SC Bioflux SRL, 54 Ceahlău Str., Cluj-Napoca, 400488, Romania, European Union.
Ioan Valentin Petrescu-Mag,
e-mail: zoobiomag2004@yahoo.com

Open Access – The Real Sense

Note that there is also an electronic version of the journal. You may download the fulltext version of AES Bioflux – Volume 6/2014 from the following link:
<http://www.aes.bioflux.com.ro/>

Peer review: all articles included in AES Bioflux are peer reviewed. Each published article was seen before by two reviewers and at least one specialist in foreign languages. The two peer-reviews are made independently; single blind peer-review is used.

Indexes and Abstracting

AES Bioflux is indexed, fulltext reproduced, or abstracted by the following databases, digital libraries and search engines:

Thomson - Master Journal List (Zoological Record)
ISI Web of Knowledge (Thomson Reuters, via Zoological Record)
ISI Web of Knowledge (Thomson Reuters, via CABI)
EBSCOhost Online Research Databases
Geobase (part of Elsevier Products)
CAB International (CABI, UK)
Index Copernicus
DOAJ (Lund University Library)
Wolters Kluwer - Ovid LinkSolver (via CABI)
CAB Direct (as part of CABI)
Ulrich's Periodicals Directory

Serials Solutions
Socolar (CEPIEC, China)
Open J-Gate: World's Biggest Open Access English Language Journals Portal
CNCSIS Romania (Rank: B+)
NewJour (Georgetown University Digital Library)
University of Washington Libraries (Digital Library)
University of Nevada, Reno (University Libraries - Catalogue)
Universitat Regensburg (Digital Library)
American University of Armenia - Koha Online Catalog
AcademicLink (Digital Library)
University Town Library of Shenzhen (Digital Library)
VUB University Library (Digital Library)
Geneva Foundation for Medical Education and Research (Digital Library)
Charles Sturt University (Digital Library)
Library of Congress Home (Digital Library)
ArgosBiotech Science Media (Digital Library)
Tsukuba Digital Library
GOOGLE - Search Engine
GOOGLE SCHOLAR (Academic) - Search Engine
Yahoo - Search Engine
and many others.

Our collaborators

Zoological Record (part of Biosis)

ION contains the organism names related data gathered from the scientific literature for Thomson Reuters' *Zoological Record*[®] database. Viruses, bacteria and plant names will be added from other Thomson Reuters databases such as *BIOSIS Previews*[®] and *Biological Abstracts*[®].



THOMSON REUTERS

Index to Organism Names (ION)



ELSEVIER PRODUCTS

Elsevier B.V., Bibliographic Databases, Radarweg 29, 1043 NX Amsterdam, The Netherlands.





Socoler

The free scholastic search engine is established by China Educational Publications Import and Export Corporation (CEPIEC). Under the leadership of China Ministry of Education, CEPIEC is the only company dealing with publication ex-im business in the education field.

CEPIEC has been serving colleges and universities, research institutions and public libraries in China for more than 20 years, providing them with excellent academic resources from all over the world. Contact:
No 41 Zhong Guan Cun Street,
Haidian District, Beijing,
P.R.China 100080
Tel: +86 (0)10 6251 4068
e-mail: li_yanxia@cepiec.com.cn
Fax: +86 (0)10 6251 4068
www.cepiec.com.cn



CABI is a not-for-profit international organization that improves people's lives by providing information and applying scientific expertise to solve problems in agriculture and the environment. Their mission and direction is influenced by their member countries who help guide the activities they undertake. These include scientific publishing, development projects and research, and microbial services.

2010 marks 100 years of CABI. Since its beginnings as an entomological committee in 1910, it then developed into a Commonwealth organization before becoming a truly international service in agricultural information, pest identification and biological control in the mid 1980s.



EBSCOhost® databases are the most-used, premium online information resources for tens of thousands of institutions worldwide, representing millions of end-users.

Address: 10 Estes Street
Ipswich, MA 01938 USA
Phone: (978) 356-6500
Toll Free: (800) 653-2726 (USA & Canada)
Fax: (978) 356-6565
e-mail: information@ebscohost.com

Contents

Ipeaiyeda A. R., Dawodu M., 2014 Assessment of toxic metal pollution in soil, leaves and tree barks: bio-indicators of atmospheric particulate deposition within a University community in Nigeria. AES Bioflux 6(2):101-110.

Kabingue V. F. C., Aranico E. C., Bracamonte N. L., Amparado R. F. Jr., 2014 Coping mechanism of flood vulnerable households along Bitan-ag Creek, Cagayan de Oro city, Philippines. AES Bioflux 6(2):111-124.

Gilbero D. M., Tabaranza A. C. E., Aranico E. C., Amparado R. F. Jr., 2014 Bioefficacy of *Moringa oleifera* leaf extract: seed germination and growth of seedling of *falcata* (*Paraserianthes falcataria*). AES Bioflux 6(2):125-135.

Lacuna M. L. D. G., Angara E. V., Rillon G. S., Carmona M. L., Ferreras J. E. M., Vallejo M. I., Merano C. R., 2014 Community structure of mesozooplankton in Casiguran waters, Aurora, Northern Philippines. AES 6(2):136-156.

Sinco A. L., Sendaydiego J. P., Saab L. L., Mojica G. R., Tampus G. G., Rondez A. S., 2014 Riverine biota as indicators of water quality in tropical Cagayan de Oro River, Philippines. AES Bioflux 6(2):157-167.

Unsing H. M. C., Lacuna M. L. D. G., 2014 Assemblages of benthic foraminifera in front of three industries along the coast of Iligan City, Southern Philippines and its relation to some environmental parameters. AES Bioflux 6(2):168-182.